Competition Policy for Small Market Economies:
Market Conditions Under the Magnifying Glass

by

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For the degree of S.J.D.
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Abstract

For the most part, competition policy literature focuses on large economies. Yet the economic paradigms on which such competition policies are based do not necessarily apply to the many small market economies that exist around the world. As this thesis demonstrates, the size of an economy affects the optimal competition policy that should be adopted by it. It demonstrates the effects of market size both on rules of thumb used in competition policy as well as on more general policy prescriptions, such as policy goals, trade-offs and remedial tools. The implications of this thesis extend beyond domestic competition policy to the evaluation of the current global trend towards the world-wide harmonization of competition policies.
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General Introduction

For the most part, competition policy literature focuses on large economies, such as the U.S. and the European Union. This is not surprising, given that the competition policy of these jurisdictions has been a major tool for achieving economic as well as other social goals for decades and given the size of the markets regulated by these policies. Yet the economic paradigms on which such competition policies are based do not necessarily apply to the growing number of small market economies that exist around the world and which have adopted or are contemplating the adoption of competition policy.¹ As this thesis argues, the size of a market necessarily affects the competition policy that should be adopted by it.

G.1 Definition of a Small Market Economy

We must first define the size of an economy and its derivation, a small economy. There are many parameters by which one can measure the size of an economy, such as geographical size, the size of its population, or its gross domestic product.² For the purposes of this thesis market size is defined as the ratio of the size of the relevant market, that is, the output that would be demanded at a price just sufficient to cover minimum unit costs, to the size of a unit of production that is just sufficiently large to achieve lowest average costs of production.³ This definition embodies the main parameters that affect the quality of competition in a market as determined by its size. Clearly, market size is highly influenced by the size of its population. The reason being that the number of minimum efficient scale undertakings that the market can support is influenced, primarily, by the size of the population which it serves.⁴

¹ Twenty years ago there were approximately 20 jurisdictions with competition laws. As of 2000 there are approximately 100 jurisdictions which have adopted competition laws.
⁴ P. J. Lloyd, International Trade Problems of Small Nations (North Carolina: Durham, 1968)“[While] there is a multiplicity of possible criteria [for size]...One should...restrict the consideration of national
Geographical size, alone, does not necessarily affect the competitive conditions in a market. Yet the dispersion of population within the geographical market and the transportation costs from one population center to another may affect the size of the market by regionalizing its industries. The size of an economy is also influenced by a combination of additional economic, geographical, technological, legal or political factors that create market boundaries and restrain entry of potential competitors. For example, due to political reasons, the Israeli market has boundaries which prevent competition from most of the Middle Eastern countries, thus creating a small-scale market. This was also true for the Eastern European countries which, for political and ideological reasons were traditionally closed to competition from many other countries, such as the Western European countries and the North American countries.

A small economy is defined as an independent sovereign economy that can support only a small number of competitors in most of its industries, when catering to domestic demand only. This definition is an economic one, and is inevitably circular in the sense that it already embodies some of the economic consequences of size. The definition of a small economy is arbitrary in the sense that there is no “magic number” that distinguishes a small economy from a large one. Jurisdictions can be placed on a continuum in accordance to their size. Some jurisdictions are very small, such as Faro Islands (with a population of approximately 40,000), Jersey (90,000), and Malta (350,000). These are also geographically small island states. Israel can be considered an island economy, due to political reasons, but is much larger given a population of approximately 6 million. Australia and Canada are much larger than Israel, but can still qualify as small economies given that most of their industries are characterized by concentrated market structures. In both economies the dispersion of the population over a comparatively large geographic size (albeit mostly around several urban centers) serves to create market regionalization that, in turn, creates typical problems of small markets. Of course, the smaller the economy the more concentrated its industries are likely to be and vice versa. Yet, all small economies are characterized by monopolistic or oligopolistic structures in most of their industries.

size to one field at a time and choose the definition of size appropriate to the field...Furthermore, it is essential that the measure of size be single-valued and quantifiable.


To be sure, many more factors influence the productivity of a small economy. These include, but are not limited to, natural resources, general and technical education, geographic location, past policy instruments adopted by the sovereign, and individual productivity. However, these factors shall be taken as a given since they are not specifically correlated to market size. We shall focus solely on the effects and implications of market size (as influenced both by domestic demand and openness to trade), as this factor directly influences the competitive conditions in the market which, in turn, affect the economic performance of the economy.

G.2 The Relevance of Jurisdictional Borders
Having defined a small economy, one can reasonably question the relevance of jurisdictional borders to competition policy. International trade among industrial countries is steadily rising, as is inter-regional trade. Much of the trade in manufacturing is intra-industry trade, in which jurisdictions sell to each other competing goods. More large firms are becoming multinational, and multinational firms based in different countries crisscross national boundaries in establishing networks of subsidiaries. Major international trade agreements, such as WTO/GATT, EFTA and NAFTA, which were designed to facilitate trade between different jurisdictions, have been signed and implemented. All of the aforementioned trends throw firms based in different national markets, including those based in small economies, into increased competition with one another.

Yet the borders of a jurisdiction create an area within which a central government exercises political and economic authority. The boundary of a jurisdiction is a point of discontinuity; it represents a change in the degree of mobility of almost all factors of production, including labor, capital and credit. To some extent these

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5 For example, Switzerland is considered a small market that managed to achieve a high level of income per head equal to or greater than that of most comparable nations of substantially larger size, due to a very high level of individual efficiency and hard work, an exceptionally high ratio of exports to home sales in its specialized industries, and a high capital per head due to the attraction of refugee capital. W. A. Johr and F. Kneschaurek, “Study of the Efficiency of a Small Nation: Switzerland,” in Robinson, supra, note 1, p. 54.

6 We shall, nonetheless, assume a similar level of economic development.

7 This discussion builds mainly on I. Svennilson, “The Concept of the Nation and Its Relevance to Economic Analysis” in Robinson, supra, note 1, p. 1.

boundaries are the result of real differences which follow national boundaries: differences in language, education and skill. For example, language differences, where language is an important part of the product (e.g. computer keyboards), may create barriers. Barriers may also result from geographic boundaries (e.g. seas, high mountain chains, secluded areas), since such barriers can create high transportation costs which limit the relevance of international trade. Transportation costs are especially influential where low priced, high shipment cost or perishable products are involved. For example, Australia’s distance from major exporters is large enough to make natural protection quite substantial for some products. Trade is also limited where producers must be in close proximity to the ultimate consumers. For example, construction and installation activities can usually be rendered on a continuous and satisfactory basis only by domestically located labour. This condition is most typical in service industries, such as retail trade, personal service establishments, the curative and other professions. Political conditions may accentuate geographic isolation both by closing certain passages to trade and by preventing trade between adjacent jurisdictions.

While the aforementioned differences cannot be wholly removed by the economic integration of separate jurisdictions, in great part the discontinuities are artificial. They typically derive from the existence of trade restrictions such as tariffs, from limits to the convertibility of currencies and transfer of credits, from limits to the movement of workers or of other persons, and even from standardization of consumer choice created by the central authority. Trade levels are also affected by domestic laws and regulations such as those regulating dumping liability, preferential treatment in government tenders for local products, and intellectual property rights protection. For example, a country which recognizes an intellectual property right of a patentee would most likely not allow the import of products breaching this right. In addition,

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10 This preference may lead, in some cases, to closed tenders, in which the government considers proposals from local producers only. Such tendering reduces, prima facie, the number of participants in the tender. The small number of potential tenderers enhances the chances of a creation of a cartel as well as its chances to be successfully enforced. A. Jacquemin and M. Slade, “Cartels, Collusion and Horizontal Merger”, in R. Schmalensee and R. Willig, Handbook of Industrial Organization (1989) p. 415, at p. 453.
trade levels may be affected by other factors which also face competing domestic producers, such as brand name recognition and concentrated market structures.

These discontinuities are not uniform in degree, either between jurisdictions or at different periods in time. The relevance of the jurisdiction in economic analysis is thus dependent, *inter alia*, on the international environment in which it is placed, that is its agreements or arrangements with other economies with which it has economic contacts, actual or potential. This milieu determines which parameters of economic action are at the disposal of the jurisdiction, especially the mobility of resources in the widest sense—labour, capital, and technical knowledge. A liberal trade policy may tend to wipe out the discontinuity of economies at frontiers, and may make the jurisdiction *de facto* less relevant as a unit in economic analysis. Yet, in most cases trade policy cannot remove all trade boundaries. Government-made barriers may still exist in some industries even among jurisdictions that have adopted a generally liberal free trade policy. In addition, geographic and cultural differences may erect barriers between different jurisdictions. For example, language differences, where language is an important part of the product (e.g. computer keyboards), may create barriers. Thus, although the issue of small economies may seem, at first, of little relevance in a world where boundaries between national markets are constantly being eroded due to international trade, it is still highly relevant to many economies.

To be sure, openness to trade is, in many cases, a first-best solution to many of the special problems of small economies. Nonetheless, as elaborated in Chapter 2, competition law plays an important role in regulating the markets of small economies.

G.3 The Need for Competition Policy in a Small Market

A second issue one must confront before studying the effects of smallness on competition policy involves the need for competition policy in small market economies, especially very small ones which are not self-supportive. Yet it seems that the arguments in favor of adopting a competition policy apply even more strongly to small economies. Despite the limited scope for competition in a small economy’s

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11 Some political units are so effectively integrated into larger economies that the degree of real discontinuity is negligible. For example, Monaco’s integration into France, Andorra’s integration into Spain, and the Vatican City’s integration into Italy. Another example involves the economic integration of European Union members.
markets, the conduct of market players should be regulated so as to ensure that competition takes its course in those industries in which competition is feasible, that limits are set on the conduct of firms operating in markets that are not self-regulating, and that importers do not behave anti-competitively. This is not to say that where policy goals other than maximizing social welfare prevail, competition policy is the appropriate tool to achieve these goals. Yet it is an important tool where market economy ideology is to be applied in practice.

G.4 The Need for A Specially Tailored Competition Policy

The third issue one must address involves the need for a competition policy that is specifically tailored to a small size economy. As demonstrated in the first parts of this thesis, small jurisdictions face different welfare maximization issues than large ones. A critical feature of small economies is the small size of their domestic market resulting from the presence of scale economies and high entry barriers in many economic activities. Smallness has adverse implications for domestic market structure and performance. The size of some industries is sub-optimal to the extent that the small size of market demand constrains the development of a critical mass of domestic productive activities that are necessary in order to achieve the lowest costs of production. Yet even where productive efficiency can be achieved, small economies cannot support more than a few competitors in most of their industries. Competition is often characterized by monopoly or oligopoly. The presence of concentrated market structures can be expected to have adverse impact on price and output levels of many goods and services, with knock-on effects where they are also inputs in production. This, in turn, implies that the balance between considerations of productive efficiency on the one hand and competitive conditions on the other is much more challenging. In the presence of scale economies, a balance should be struck between permitting firms large and integrated enough to enjoy these economies and firms numerous enough and

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12 In Jersey, for example, government control of the quality of life leads to strong regulation of business activity. Yet, Jersey is recently contemplating the adoption of a competition law especially structured to its needs.
14 Robinson, supra, note 1, p. xiii, at p. xvi.
with sufficient opportunity for effective rivalry. In addition, firms and plants in a large economy can specialize more narrowly and concentrate their efforts on a more limited range of products than most producers in a small economy. Thus, the advantages of scale are much more ramifying than might be supposed at first glance.\textsuperscript{15}

These salient characteristics have important policy implications as they require small economies to devise appropriate endogenous policies that offset at least some of the adverse effects of their small size. Economic policy, including competition policy, might increase the disadvantages of small economies or, alternatively, reduce them. In order to increase economic welfare, competition policy has to be designed to deal effectively with the unique obstacles to competition which are inherent in an economy, including those which stem from its small size. Even small economies that enjoy some unusual comparative advantage must have the capacity to take advantage of these hazards of fortune and to make them a basis for sustained economic development.\textsuperscript{16}

Moreover, in small markets the importance of appropriately structured and efficiently enforced competition policy may be more important than in large economies. Given that the market’s invisible hand has a much weaker self-correcting tendency, the costs of improper design and application of competition laws might be greater both in the short and long-run.

To be sure, many of the principles and doctrines that apply to large jurisdictions apply equally to small ones. The goals of competition policy, which is aimed at creating and maintaining the conditions for workable competition in order to maximize social welfare, and its main tool and ideological choice- a market economy, are similar in both large and small economies. Yet the comparative prevalence of concentrated market structures in a small economy creates a set of trade-offs that may require a different set of rules to regulate the conduct of market participants. The effect of small size resembles that of a magnifying glass: special market phenomena become more significant as extremes become the rule.

G.5 The Current state of Competition Policy in Small Economies

\textsuperscript{15} "Introduction" in Robinson, supra, note 1, at p. xvi.
\textsuperscript{16} S. Kuznets, "Economic Growth of Small Nations" in Robinson, supra, note 1, p. 14, at p. 28.
Most small economies give no systematic weight to considerations of the size of the economy in their competition policy. Rather, many small jurisdictions adopt or rely upon the statutes and established case law of large jurisdictions. This approach has many recognizable advantages, such as a ready basis for the law, a large body of comprehensive case law and commentary, and network externalities. The main pitfall of such approach is that insufficient weight is given to the special characteristics of the small economy, which differ significantly from those of a large one.

Surprisingly, although several major economic studies have focused on the special economic characteristics of small economies, there is no comprehensive attempt to evaluate the implications of those characteristics on the regulatory policies—especially competition law—in small economies. This thesis attempts to perform this task by suggesting guidelines for competition policy in small economies. It places under the magnifying glass the implications of the small size of an economy for its competition policy. While the main focus is on the issues that necessitate special attention or different regulatory tools, it also identifies areas of law where applicability of competition policy of other, larger jurisdictions poses no special problems due to differences in market size.

The need for this research has intensified in recent years. Political trends to separate past large economies into smaller ones and the move towards more market-oriented economies has made competition policy an important and indispensable tool in the formation of new market economies. The shift from direct management of the

17 The most adopted laws are Articles 85 and 86 of the EC’s Treaty of Rome and the main regulations issued by the European Commission. The following jurisdictions have adopted, in full or in part, EC competition laws: Sweden, Finland, Malta, Jamaica, Ireland, Cyprus, Denmark, Germany, the Netherlands, Israel.
18 See Chapter 8.2 infra.
19 See, for example, Robinson, supra, note 1; United Nations, Department of Technical Co-operation for Development, Development Problems and Policy Needs of Small Island Economies (Kingstown, Saint Vincent and the Grenadines, 7-11 No. 1983, Proceedings of a United Nations Interregional Workshop on Development Planning; B. Jalan (ed.) Problems and Policies in Small Economies (London: Croom Helm, 1982); RCCC, supra, note 4 and other studies cited throughout this paper.
economy in favor of an increased reliance on the market has led to the adoption of competition laws as an integral part of economic reform measures in many jurisdictions.\textsuperscript{21} In addition, only in recent years have many jurisdictions, especially small ones, acknowledged the need for competition laws that will regulate their markets by maximizing the use of the market’s invisible hand. In fact, almost all of the jurisdictions that do not yet have competition laws are very small. This is especially true for many small economies in which prices and terms of sale were closely regulated and in which it was believed that market forces have limited regulatory and disciplinary power.\textsuperscript{22} Still in other jurisdictions competition laws, which were only partially enforced in the past, are being implemented with more vigor.\textsuperscript{23} These trends increase the need for a study regarding the implications of small size on one of the main economic tools used in market economies- competition policy.

Although many of the issues explored in this thesis are of great relevance to small, emerging market economies which are in transition towards a more capitalistic society, it does not focus on issues which are special to markets in transition. Transitional issues are not necessarily unique to a small economy but are rather unique to transitional periods. These include educating the public in the basic principles of competition policy as well as creating the proper agencies and granting them the power necessary to enforce the law.\textsuperscript{24} Nonetheless, in formulating their


\textsuperscript{22} Ibid, at p. 111-5

\textsuperscript{23} For example, although Israel has had its own competition law since 1953 (the Israeli Trade Restrictions Act), for the first 40 years of its existence the law had little influence on the market. This might be explained by several reasons. First, in the first years of its existence the Israeli market was still developing and new businesses were struggling to survive in a market. This was no time for strict rule-making, although setting the rules of the market game at such an early stage more clearly would have prevented some of the anti-competitive behavior and market structure Israel is currently struggling with. Second, previous Directors of The Competition Authority viewed their jobs as a minor and marginal one. This changed when the previous Director entered into office in 1990. Although the private right to sue was incorporated into the Law in 1988, a surprisingly low number of suits have been filed. This can be explained by the fact that most lawyers did not pay too much attention to the law, and courts did not (and most still do not) know how to deal with such cases. For such reasons it not uncommon to still find conspicuous and blunt anti-competitive conduct of market participants.

competition laws, small economies in transition should take into account the special characteristics of their market, including its small size.

G.6 Road Map

Part I of the thesis focuses on the economic characteristics of small-scale market economies. Economic analysis serves to answer two questions which are germane to the debate. The first is which market conditions and trade practices are characteristic of small economies and how often do these economic phenomena occur. The second is how large are the gains and the costs of these market phenomena. The answers to these questions provide a basis for the important policy questions to be addressed in part II: How should the competition laws of small economies be designed and implemented.
Part I: The Economic Characteristics of Small-Scale Market Economies: Market Conditions under the Magnifying Glass

Introduction

The theory of competition is a fundamental feature of our free market society. From the time of Adam Smith to today, competition has been viewed as an important tool (rather than an end) for achieving welfare maximization as well as other social goals. As Train observes:

"Competition, in theory if not always in practice, is nothing short of a miracle. Each firm tries to make as much profit as possible without regard (at least directly) for social welfare. Each consumer maximizes his own utility, ignoring others. Yet the result is that social welfare, in the Pareto sense, becomes as great as possible. This consistency of private goals with social goals—the existence of the "invisible hand" that molds privately motivated actions into socially desirable outcomes—serves as the rationale for a "free market"."1

However, in order for competition to create efficient incentive mechanisms, some economic conditions must first be met. Optimally, competition works best under conditions of perfect competition.2 Perfectly competitive industries are usually characterized as having many firms whose output is small in relation to total industry output, low barriers to entry for new firms or for the expansion of output by established ones, perfect information, and homogenous products. In such industries, all efficient firms

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2 Viscusi et al. specify the following conditions for perfect competition: (1) consumers are perfectly informed about all goods; (2) producers operate under production functions that rule out increasing returns to scale and technological change; (3) consumers maximize their preferences given budget constraints; producers maximize profits given their production functions; (4) all agents are price-takers and there are no externalities among agents. W. Kip Viscusi, John M. Vernon, and Joseph E. Harrington Jr., *Economics of Regulation and Antitrust* (Lexington, Mass.: D.C. Heath and Company, 1992), at p. 68-9.
are expected to earn "normal" returns on invested capital over time. Once profits rise above normal levels (because of increases in demand or decreases in costs) the market mechanism will shortly return prices to their normal level, since new firms will enter or existing firms will expand their output. If the markets in all industries in an economy are competitive, returns to capital will be comparable in all industries after adjustments for risk, since there are no impediments to moving resources to another use if such a move could increase their returns. In addition, the marginal cost of production for any given product will equal the marginal value of the product to consumers, as measured by the price consumers are willing to pay for it. Thus, resources will tend to be allocated efficiently from both production and consumption points of view. However, all the conditions of perfect competition must simultaneously be present before we can predict an outcome of efficient resource allocation. While competition can still function under conditions of workable competition\(^3\), such conditions require closer checks and balances on industry conduct and performance.

The standard paradigm of industrial organization implicitly assumes a market that is large, in which conditions for perfect competition- or at least workable competition- exist.\(^4\) However, in a small (relative to the scale of the efficient production unit) economy some of these conditions are not met. The structure and conduct of some markets in small economies differ greatly from the assumptions of the economic models of perfect competition. There is generally some departure from the perfect competition model that cannot be glossed over or rectified. For example, the economy is usually not composed of industries in which there are large numbers of competitors in a laissez-faire marketplace with price as the only significant competitive variable. Rather, in many industries the market is dominated by a single large firm or has an oligopolistic structure in which prices and other terms of sale are arrived at through consciously parallel behaviour. Substantial barriers to both entry and exit are widespread. The incentives created are thus different from those in a perfectly competitive market. For example, in a market with an downward

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\(^3\) Conditions of workable competition are defined as conditions which deviate from the perfect competition benchmark but still allow some level of competition to take place.

sloping cost curve over the relevant range of demand, monopoly is a natural result. Monopolies, however, do not have to share the benefits of their efficiency with consumers, nor do they always have strong incentives to undertake innovations. Accordingly, predictions of standard economic models are altered when the economy is small, even if it is exposed to some degree of international competition. As Caves et al. have argued, the fundamental structural traits of smallness and openness of an economy demand that particular functions in the standard economic models be specified differently from those appearing in studies of large economies such as the U.S., since they apply to a different class of market economy.\(^5\)

While some of the economic issues of small, open economies are unique to such economies, most of the issues are relevant to both small and large ones. Nonetheless, the small scale creates an effect similar to that of a magnifying glass: Departures from the assumptions of perfect competition are greater and special market phenomena become more significant as extremes become the rule. Accordingly, in some situations the small scale changes market structure and behaviour completely while in others it changes the severity of an economic phenomenon as well as its effect on other economic activities in the market. In addition, the small scale affects the remedies that can be used in order to remedy market imperfections. Where a large economy might tolerate some anti-competitive acts and still be efficient overall, in small ones the same acts might be widespread and have greater effect on the economy as a whole and thus should not be tolerated.

However, no two small open economies are alike. They differ in their characteristics and policies. Some of these difference are the result of natural conditions. For example, small economies differ in their degree of geographic isolation and prices of inputs due to the availability of raw materials. Other differences are attributable to government economic policies such as tax and trade policies. Accordingly, smallness and openness are always a matter of degree. Canada has today—after GATT, FTA and NAFTA—low tariff barriers in most of its industries. Trade with the U.S. is also greatly

\(^5\) Ibid, at p. 5
facilitated by often low transportation costs and low adaptation costs to variations in product demand created by safety regulations or cultural factors and the like. A different situation is present in small economies such as Australia, New Zealand and Israel, where trade with neighbouring countries is, in many cases, not feasible or not economical, due to high tariff barriers (between Australia and South East Asian countries), the political situation (Israel), significantly high transportation costs (Australia, Israel), as well as significant adaptation costs (Israel). Nonetheless, some economic phenomena can be observed in most, if not all, small open economies. Policy findings of research undertaken on small open economies should more or less apply to any small, open economy, as long as the effect of an economy’s special conditions is taken into account.

Accordingly, the goal of this part of the thesis is to identify the behavioural and structural determinants of the key aspects of market performance in a small open economy: efficient allocation of resources between sectors (allocative efficiency), a minimum-cost production of any given output (productive efficiency), and the optimal allocation of resources to the production and acquisition of industrial knowledge (dynamic efficiency), that can and should be dealt with by competition law. The most important question on which this part focuses is the degree to which small economies’ efficiency and productivity are constrained by serving small and sometimes isolated markets, while the second part of the thesis will focus on the role of public policy--especially competition policy--in minimizing these constraints. Thus, economic research studies will be cited in as much as they shed light on the above factors and allow for the evaluation of competition policy.7

Since most of the economic research on small, open economies has related to Canada and Australia, a brief overview of their special economic characteristics is in

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7 While the economic tasks are carried out with emphasis largely on self-regulating markets, in some markets there is strong reliance on government intervention through regulatory boards, state-owned corporations and other forms of government ownership and control, legislative restrictions, taxation and subsidy programs, etc. However, since we mostly rely on the market mechanism to allocate resources, adjust production and consumption, distribute income and bring about economic growth, it is this institutional arrangement this thesis focuses on.
place. The Australian economy is usually characterized as possessing four distinctive physical characteristics: the national population is limited to approximately 17 million, it has a high degree of urbanization (89 percent of the population) concentrated in five distant state capitals that dot the edges of the thinly populated continent, it is located at a distance from its trading partners (except New Zealand) which are located mainly in Europe, Asia and North America, and it is rich in natural resources. As to its openness, the Australian manufacturing industry has generally enjoyed high levels of protection from import competition, due to both natural and artificial barriers to trade. While the great distance which separates Australia from traditional exporters of manufactures and from potential customers for its exports provide much natural protection to support the small-scale manufacturing industry, artificial forces are present as well, such as protective tariffs and policies which have preserved regional fragmentation and long-term constraints on productivity.

Canada is often characterized as a small and geographically segmented market economy. The relative size of Canadian markets, on average, generally tend to be one-tenth of those in the U.S., as Canadian population is approximately 27 million people. Despite its large land mass, much of the population is concentrated near the U.S. border. As for its openness to trade, Canada has attempted for more than a hundred years to foster a national market for Canadian manufactures by means of high tariff walls. However, in the last few decades tariff barriers have been reduced significantly. These structural traits, coupled with a high degree of general similarity to the U.S. in laws and institutions, make Canada an attractive case for testing the hypothesized influences of smallness and openness on the structure and performance of industries.

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11 Caves et al., supra, note 3, at p. vi.
A third example we shall utilize is Israel. Israel serves as an excellent case study for a small market given its small size (approximately 6 million inhabitants) and its distance from most of its major trading partners. The geo-political setting of the Israeli market practically isolates many of its industries from import or export markets. Unlike other markets of such small size which are located as part of a much larger geographic settings, the Israeli market has many characteristics of an island economy: imports and exports are transported by air or water, and there is minimal trade with neighbouring countries. These characteristics thus create natural barriers to competition in most local services and in some local manufacturing industries. In addition, there are many artificial barriers, such as tariffs, beaurocratic authorization procedures, or public policy towards the preference for local products. Due to these factors, in many of the Israeli manufacturing industries the market cannot support more than one optimally sized firm. In many other industries the market is not even big enough to support one optimally sized firm. Oligopolistic structures can also be found in many industries. The Israeli industry thus serves as an ideal laboratory for evaluating monopolistic or oligopolistic market structures.

In order to simplify the analysis, the first chapter deals mainly with a small economy, whilst the next introduces another factor into the equation: openness to trade. Historical events and geographic boundaries make this distinction quite easy. For example, as noted above, Canada has attempted for more than a hundred years to foster a national market for Canadian manufactures by means of high trade barriers. The historically high tariff in manufacturing and the geographic dispersion of the Canadian economy have encouraged inward-looking industries that tended to perceive market size as being restricted to national or regional areas. However, such trade barriers have recently been significantly reduced by international trade agreements. In other

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12 See Re Merger in accordance with sec. 21 of the Trade Restrictions Act 1988 between Columbus Capital Corporation and Cur Industries, Ltd. (Jan 5, 1988, unpublished), at p. 34.
13 Michael Schefer, Industrial Organization (Tel Aviv: The Open University, 1992), at p. 246-8.
jurisdictions, natural barriers to trade serve the same purpose. The third chapter focuses on the implications of the characteristics of small, open economies for competition policy.

\[\text{15 Natural impediments to trade may include the following: transportation costs which must be incurred in order to serve geographically secluded markets that are high enough to deter entry of importers from other domestic markets or even from other regional markets within the national borders; total world market demand for a specific product which is extremely low and concentrate, mainly, in the small economy; high adaptation costs due to cultural differences which affect domestic traits of demand.}\]
Chapter 1: The Economic Characteristics of Small-Scale Market Economies

This chapter presents the key structural and behavioral characteristics of a small market economy which faces domestic demand alone, as well as their effect on the economic performance of the economy.

Untangling the economic characteristics of small economies is not an easy task, due to the complex interaction between market structure, conduct and performance. Any classification will inevitably over-simplify the situation. While no simple economic model can be applied, the study will follow, where appropriate, the Structure-Conduct-Performance model in its simultaneous-cum-recursive form, in which the chains of causality are recognized as operating in more than one direction.¹ Some of the market phenomena will also be explained using price theory models, such as transaction cost analysis², game theory³ and contestable market analysis.⁴

¹ According to this model, first developed by Harvard economist Edward S. Mason and his colleagues and students, the structure of a market (the factors which determine the competitiveness of a market such as number of sellers, ease of entry, etc.) explains or determines to a large degree the conduct (the behavior of economic players such as pricing policy, advertising etc.) of the participants in the market, which, in turn, affects the performance of the market (the success of a market in achieving economic efficiency, its prices and quality). The structure of an industry depends, in turn, on the basic conditions of the industry, such as technology, economies of scale and elasticity of demand. In addition, government policy (regulation, competition law, investment incentives, taxes and subsidies, etc.) influences all the previous characteristics, while industry conduct influences government policy. However, the chains of causality may, in some cases, operate in different directions. Dennis W. Carlton and Jeffrey M. Perloff, Modern Industrial Organization (New York: Harper Collins College Publishers, 2nd ed., 1994), p. 3. The Structure-Conduct-Performance model is not without its critics, at the theoretical as well as the empirical level. Some critics argue that its scope is too narrow: It neglects important elements such as foreign investment. Others argue that it is too static since it is not sensitive enough to changes in tastes and technology. Nonetheless, it is one of the best methodologies for explaining economic phenomena in a simple framework. Where appropriate, the study will introduce other elements which are not part of the model.

² Transaction costs are the costs of trading with others above and beyond the market price of the traded good or service, such as the cost of writing and enforcing contracts. The transaction costs approach uses differences in transaction costs to explain why structure, conduct, and performance vary across industries. According to Oliver Williamson, one of the major proponents of this model, four basic concepts underline this analysis: (i) markets and firms are alternative means for completing related sets of transactions; (ii) the relative cost of using markets or a firm's own resources should determine the choice; (iii) the transaction costs of writing and executing complex contracts across a market "vary with the characteristics of the human decision makers who are involved in the transaction on the one hand, and the objective properties of the market on the other"; and (iv) these human and environmental factors affect the transaction costs across markets and within firms. Oliver E. Williamson, Markets and Hierarchies: Analysis and Antitrust Implications (New York: The Free Press, 1975) p. 8-10; Carlton and Perloff, ibid, p. 5.
The chapter is organized as follows. The first section presents the most important basic characteristic of small economies: the small size of their domestic markets and the resulting problem of achieving efficient scales of production. It also presents additional characteristics of small economies, mainly supply constraints on labor and other factors of production. The second section deals with market structure: Industrial concentration, sub-optimal levels of production, and high levels of aggregate concentration. The third section focuses on the conduct of firms under concentrated market structures. The fourth introduces an additional consequence of market size: high degrees of foreign ownership. The fifth section summarizes the effects of the above factors on economic performance. The sixth section concludes the chapter.

1.1 The Basic Economic Characteristics of a Small Economy

1.1.1 The Smallness of the Markets and the Problem of Achieving Efficient Scales of Production

Undoubtedly, the main characteristic of a small economy is, as its name indicates, the smallness of its markets. As noted above, market size is defined as the ratio of the size of the relevant market, that is, the output that would be demanded at a price just sufficient to cover minimum unit costs, to the size of a unit of production that is just sufficiently large.

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3 Competition among firms is viewed as a game of strategies or battle plans of the actions of a firm, that describe the behavior of each firm (output, price, advertising level, etc.). In the game, firms compete for profits. Game theory provides insights in games in which there are relatively few firms. See Carlton and Perloff, supra, note 1, p. 6.

4 Threat of entry can induce firms operating in markets to act competitively. Demsetz and Baumol, Panzar and Willig emphasized that with a few firms (or just one) but easy entry and exit, the market is contestable and can have the properties of a competitive market: Price equals average cost and strategic behavior is irrelevant. On the other hand, if there are few firms in an industry and entry and exit are difficult, the market is not contestable and strategic behavior is relevant. See Harold Demsetz, “Why Regulate Utilities?” (1968) 11 Journal of Law and Economics 55, p. 55-65; William J. Baumol, John C. Pansar, and Robert D. Willig, Contestable Markets and the Theory of Industry Structure (New York: Harcourt Brace Jovanovich, 1982); Carlton and Perloff, supra, note 1, p. 6.

to achieve lowest average costs of production (Minimum Efficient Scale or “MES” of production).  

Naturally, the smaller market demand is, compared to MES of production, fewer production units can operate in the market. The crucial question is whether such MES is large or small in relation to the demand for an industry’s output: Whether there is room for many firms in the market, each large enough to enjoy productive efficiency, for just a few, or for only one firm. While market demand and MES of production may differ from one industry to another, market demand in many, if not most, of the industries in a small economy cannot support more than a few MES plants and firms.

Given the effects of economies of scale on determining the MES of production which, in turn, affects market structure and performance, as well as the remedies which can be used to remedy market imperfections of small economies, scale economies deserve a brief overview.

**Economies of Scale**

Scale economies are unit-cost reductions achieved through the production of more of an output and which are internal to the firm. Thus, scale economies contain an inherent

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7 As will be elaborated below, efficient sizes may also vary from one firm to another within the same industry, depending upon the degree and type of integration with related activities, differences in production processes, the methods of management organization, and the character and abilities of management. Larger and smaller firms may be geared to operate in wholly different ways. Robert Bork, *The Antitrust Paradox: A policy at War with Itself* (New York: The Free Press, 1993, 2nd ed.), at p. 192-3.

8 While the exact number of MES of production that an economy’s markets can support in order to be defined as small cannot be exactly specified, the number should be so small as to support a monopolistic or an oligopolistic structure in most of its industries.

9 This overview draws, mainly, on Scherer and Ross, *supra*, note 6, p. 97-141 and RCCC, *supra*, note 6, chapter 3.

10 C. D. Foster, *Privatization, Public Ownership and the Regulation of Natural Monopoly* (Oxford: Blackwell, 1992); Kenneth E. Train, *Optimal Regulation* (Cambridge, Mass.: The MIT Press, 1991) p. 5-6. It is essential that the economies of scale be internal to the firm, i.e., that the advantages occurring from economies of scale can be achieved only if one firm produces the product. Economies of scale might instead be external to the individual firm. This is the case where as an entire industry grows, it can acquire some of its inputs at decreasing average costs, because its growth enables the suppliers of those inputs to take advantage of potential economies of scale internal to their industry. Increasing returns of this kind are compatible with a competitive organization of the industry, since all the firms will benefit from these
tendency toward decreasing average unit costs, at least until the level of output that minimizes average costs is attained. Economies of scale consist of four main categories: product-specific economies, associated with the volume of any single product made and sold; plant-specific economies, associated with total output (possibly encompassing many products) of an entire plant or plant complex; firm scale economies, associated with firm scale; and multiplant economies, associated with a firm's operation of multiple plants. Each deserves some extended consideration.

Product-specific economies are created when increased volumes of production of a product tend to decrease the average total costs per unit. These unit cost reductions associated with increasing output levels can have numerous causes. Product-specific economies depend, primarily, on available production technologies and their characteristics such as fixed costs, running time, set-up time and operator's skill. They are often the result of production technologies which necessitate large investments merely in order to be in a position to serve customers on demand by the most efficient technology available. These costs must be incurred no matter how many units of output are produced (indivisibilities in production costs). When output expands, these costs are spread over more units, such that average cost per unit declines in inverse proportion to the number of units sold. Another cause relates to increased specialization of machinery and labor: Goods whose demand warrants high-speed, long-term production runs are able to utilize more specialized machinery when production is increased, and there is also less down time for changes between products using the same machinery, reduced waste and increased quality. With a larger output, some product workers can specialize more


11 In Frank Knight's words: "When the output of a commodity is increased, the cost of the productive services used to produce it will be higher; but this increase in their cost per unit may, it is held, be more than offset by economies in utilization, made possible by larger-scale operations, which increase the amount of product obtained from given quantities of materials and resources consumed... The possibility of realizing such economies- by the distribution of "overhead", or more elaborate division of labor or use of machinery- tends to bring about an increase in the scale of production." Frank Knight, "Some Fallacies in the Interpretation of Social Cost", (1924) 38 Q.J. Econ. 582.

12 For example, in ball bearing manufacturing, in order to realize savings from automatically operated machines, the production line must be kept running without changeover two shifts per day, and this requires a large and continuous volume of output. Scherer and Ross, supra, note 6, p. 97.
These economies have also a dynamic dimension: When intricate labor operations must be performed, or when complex process adjustments must be worked out through trial and error, unit costs fall as workers and operators learn by doing\textsuperscript{13} or develop cost-cutting measures and quality control in production. Lastly, such economies arise from technological relationships permitting equipment to be scaled up at less than a proportional increase in investment outlays. Most of the production-specific economies are location-specific. Thus, where product-scale economies exist, plants constructed for higher levels of output will have lower average costs than smaller plants, and it will cost less for an existing supplier to add a given amount of capacity to its existing plant than for a new supplier starting afresh to provide it.

Plant-specific economies of scale arise from indivisibilities in plant management, maintenance, repair, inventories of raw materials, shipping, construction, and the like. For example, economies of massed reserves permit a large plant to retain proportionately fewer repair men and backup machines to hedge against randomly occurring breakdowns.\textsuperscript{14} The cost of producing a particular product is influenced not only by that product’s volume, but also by the size of the plant in which the product is made ("economies of scope").\textsuperscript{15} If the volume that exhausts a specific product’s production economies is greater than the minimum efficient scale of a plant, it is more efficient for one plant to produce only one product. However, plant-specific economies may extend to plant output levels exceeding the threshold at which all product-specific economies for any single product are exhausted. In that case, it will be more efficient for a plant to produce multiple products.

Firm-scale economies reflect the relationship between the absolute size of the firm and the efficiency at which it can produce its products. The factors that lead to economies


of scale at the firm level are generally considered to include management, finance, research and development, advertising and distribution, export activities and risk-taking for large projects, as well as overhead expenses such as insurance and legal services. As has long been recognized, many of the firm-scale economies arise from intra-firm trade. According to the modern theory of the firm, production will be internal to a given firm where the agency costs of internal contracting are lower than the costs of external contracting between independent producers or providers of each component required to make the final product. In his seminal work Coase suggested that activities are collected within a firm, when transaction costs incurred in using the market mechanism exceed the costs of organizing those activities through direct managerial controls. Provided that the firm is efficient, internal transactions are simpler for several reasons: Production costs can be reduced, information flows faster and is more transparent, actions of individual units are more effectively coordinated, technology is

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16 These include capital-raising economies as well as capital-pooling economies. The former are created by the tendency of smaller firms to pay higher capital costs because they tend to issue new securities in smaller quantities, so that fixed transaction costs are higher per dollar raised, and because, once issued, their securities usually elicit a less favourable reaction from investors. See, for example, S.H. Arch and L.G. Faerber, "Firm Size and the Cost of Externally Secured Capital," (1966) 21 Journal of Finance 69.

17 Oliver E. Williamson, Antitrust Economics (Cambridge, Mass.: Basil Blackwell, 1987) p. 24-38; Gene Grossman and Carl Shapiro, "Research Joint Ventures: An Antitrust Analysis" (1986) Journal of Law, Economics and Organization 315. However, while economies of R&D may persist into a size range embracing multiple least-cost plants, there is also evidence that larger size impedes innovations since decision-making is slower in large enterprises and that transmitting incentives through a complex multipant organizational structure is more difficult. For an extended overview see section 1.5 below.

18 Advertising economies result from the need to attain a certain threshold level of advertising messages before reaching maximum effectiveness. There are two main reasons why this might be so. First, the average consumer's behavior may not be influenced by a single message, whereas several delivered messages are likely to induce action. Second, when advertising messages are communicated further by word of mouth, conditions analogues to those governing chain reaction may apply. Advertising economies may also be the make of capitalizing on images that transcend local market boundaries (especially in a mobile society), in which case the image is an asset whose full value is captured only through nationwide (or multinational) distribution. Scherer and Ross, supra, note 6, p. 126.


shared, product standards are developed, and barriers to entry are surmounted.21 Especially when goods or services would have to be contracted for repeatedly in small quantities or when designs are changing in complex ways, transaction costs may be high. For components, materials and services whose provision entails compelling scale economies, the choice between integration and deintegration has an important additional dimension: To avoid actual or feared monopolistic exploitation, users of high-scale economy materials or components often decide to undertake internal production.22 This tendency towards the internalization of the transactions within the firm is also strengthened where the external environment is less certain.23 It is worth noting that while most firm-scale economies are “real”, in the sense that they represent true cost savings where less resources are spent on production, some are pecuniary economies of scale which are monetary savings from buying goods or services more cheaply due to greater bargaining power, not related to long-run savings in the use of socially valued resources.24 While real economies enhance economic efficiency, pecuniary economies merely reflect redistributions of income between buyers and sellers.25

A final source of scale economies is related to the operation of multiple plants by a single firm.26 However, unlike the scale economies surveyed above, multiplant economies relate not only to the absolute size of the product-runs/plant/firm but also to the internal organization of the firm. Multiplant scale economies are unique in that they are the only economies which take into account the location of the plants by adding into the efficiency equation distribution costs in addition to pure production costs. Such economies exist when a multiplant enterprise can employ a more richly specialized array of talent than a single-plant firm, can spread better its production risks, or, more importantly for a small market, can obtain a lowest-cost allocation of production among geographically dispersed

22 Scherer and Ross, supra, note 6, p. 110.
23 Foster, supra, note 10, p.146.
26 Scherer et al., supra, note 5.
plants, by balancing transportation costs against plant-specific and product-specific economies of scale. For example, if delivery costs are substantial, it is obviously more economical, if one is to serve a large geographic market, to have dispersed multiplants than to ship everything from one large, centrally located establishment, *ceteris paribus*. The overall lowest-cost allocation of production amongst plants is termed "optimal (geographically) unbalanced specialization." Dispersed plants may also enable firms to serve their customers in close proximity even when customers travel or relocate. In addition, when demand grows over time and when scale economies can be realized by expanding capacity in large indivisible chunks, excess capacity carrying costs can be reduced, and the scale opportunities can be exploited more fully by investment coordination economies. Economies may also result from the operation of multiple geographically dispersed plants as an integrated system due to the ability to maintain lower peak-load capacity in each plant. Similarly, when a short-run average variable cost curve slopes downward at low outputs, production cutbacks in response to a general demand slump can be accomplished more economically by shutting down one or more whole plants in an integrated network than by reducing output at each of many independent plants. For the most part, however, these latter savings are small.\(^{27}\)

All the scale economies surveyed above are not necessarily inexhaustible. Normally, there will be some scale at which all relevant advantages of large size are attained and at which unit costs reach their minimum value. Industries, as well as firms operating within industries, may differ in their slope of the long-run average cost curve before it reaches its minimum point, as well as beyond it. Beyond the minimum point unit costs may be constant for some output, depending, mainly, on the technical characteristics of each industry. Nonetheless, in nearly all production or distribution operations, the realization of scale economies appears to be subject to diminishing returns. A point is reached where all opportunities for further cost reductions are exhausted. Diseconomies of scale may be a result of a "control loss", that is, as the number of layers of management

\(^{27}\) Scherer and Ross, *supra*, note 6, p. 124.
increases, it becomes more and more difficult for the top management to exercise control over the entire organization.\textsuperscript{28} From a dynamic perspective large firm size might inhibit innovations or change. Also, some of the benefits surveyed above can be captured by horizontal strategic alliances without the hierarchies and bureaucracies of large organizations.\textsuperscript{29}

Efficiency requires that all scale economies be exhausted by a firm. However, in some situations and especially in small markets, not all scale economies can be exhausted. Where the level of demand lies below the MES of output, MES cannot be achieved. This, in turn, suggests that the unit costs of production of such products or services are relatively high, the magnitude of the effect being determined by the slope of the average cost curve for output below the MES.

Economies of scale act as barriers to entry, i.e. factors that impede or prevent additions of capacity and the entry of new firms into an industry.\textsuperscript{30} An entrant with less than MES plants will face cost disadvantages \textit{vis a vis} established firms with MES plants. If MES is large relative to the demand in the industry, and if the cost-penalties for operating below MES are substantial, a new firm would have to enter the market at such a large scale that the combined output of all the firms operating in the market could be sold

\footnotesize{\textsuperscript{28} Viscusi et al., supra, note 25, p. 154.}

\footnotesize{\textsuperscript{29} Tim Kennish and Thomas W. Ross, "Toward A New Canadian Approach to Agreements Between Competitors: Re-evaluating the Law on Horizontal Agreement," (Presented at the Conference The Competition Act Ten Years On: A Stock Taking at University of Toronto Law School, 1995), at 9.}

\footnotesize{\textsuperscript{30} The concept of entry barriers is riddled with unclarity and hardly reflects consensus, given that different economists have employed different meanings to this concept. We shall use the above definition. Static barriers can be classified into four groups: (1) Natural barriers stemming from economies of scale and transport costs: An entrant with less than MES plants will face cost disadvantages \textit{vis a vis} established plants with MES plants. High transportation costs decrease the effective size of a market area and inhibit or prevent competition from firms outside the area; (2) Legislative or regulatory barriers erected by government with the intent or effect of limiting entry into an industry. These include government imposed legislative restrictions such as patent protection, restrictions on foreign investment, tariffs, quotas, tax policies, health and safety regulations, etc.; (3) Artificial barriers erected by firms already established in the market, such as product differentiation through loyalty to brand-names, company reputation or distribution outlets. Advantages can accrue to firms which successfully develop consumer loyalty whether based on real, objective differences in output or service or on subjective differentiation associated especially with advertising; and (4) Absolute cost advantages arising from preferential access or absolute control of raw-material markets, labor markets, capital markets and production technologies. Especially where there are imperfections in the market for know-how, the new entrant may be unable to achieve the same cost conditions in production as can established firms. Where production is capital-intensive and involves large-scale processes, the physical capital requirements can involve expenditure commitments that act as an entry barrier.}

only at substantially reduced prices, perhaps even below cost, unless one firm exits the market. Where there are economies of firm size encompassing broader organizational economies this may act as a barrier to entry at the broader enterprise level.

Scale economies may also affect the choice of technology of market participants. Where more efficient production technologies become more profitable only after a very large output relative to domestic demand, it might be more profitable to install a different technology that, although less efficient than the other technology where all scale economies can be attained, has lower production costs for the range of output which satisfies demand. In other words, the small size of demand relative to the rate of output required for the full exploitation of scale economies of efficient production methods lowers the profitability of the more efficient methods relative to that of less efficient ones. Sub-optimal equipment may be not only a current handicap for firms but it also endangers their future position. It may well be that when demand increases new investment will also be sub-optimal since existing entrepreneurs may not change their technology choice, although market demand may support a more efficient technology. 31 As will be elaborated below, diseconomies of scale may also impede, inter alia, the creation of indigenous research and development, technology acquisition and technical progress.

The effects of diseconomies of scale may extend far beyond a specific industry if the good or service provided by it serves as an intermediate products in the production of other goods. Even if demand for a given final product is large enough to provide adequate market outlets for the output of at least one optimum-sized plant, demand may still be sub-optimal for the efficient production of equipment, servicing, or other intermediate products necessary for the production of the final product. Diseconomies in intermediate goods markets have knock-on effect on other industries that must utilize these goods. Thus, industrial interdependence renders very much larger the scale of the output

necessary for the full exploitation of economies of scale. 32 While we shall return to this effect in the study of the comparative disadvantages of a small economy in world markets, it also influences the internal structure of a domestic market which is not open to trade, given that the cost of a product influences, in turn, its price and the demand for it in the market. The higher the price of a product, the lower will be its demand and the smaller the number of MES firms and plants that will produce it.

In many situations one scale economy can offset at least some diseconomies. For example, one way to overcome some of the inefficiencies related with short product runs is by exhausting plant-scale economies. In small markets, where market demand is frequently too limited to achieve product-specific economies—due to low volumes of market demand or to product differentiation discussed below—firms that produce only for the domestic market may not exhaust product-specific economies, but they can lower their total costs to some extent by producing many different products in one plant rather than in several different plants and thus offset at least some of the product-specific economy sacrifices attributable to low-volume production. Such larger multiproduct plants would be more efficient than many small plants, each of which produced only one product. As Scherer and Ross observe:

"This phenomenon [multiproduct plants] shows up most strikingly in relatively small markets such as Canada, where demand is frequently too limited to let firms achieve all the product-specific economies potentially attainable in manufacturing a given product. As a result, the typical Canadian plant tends to produce a wider assortment of products than its counterpart in the much larger U.S. market, where it is easier to fill a plant with one or a few high-volume products." 33

Similarly, firm-scale or multiplant economies can offset some product and plant diseconomies, especially in a small market. As Scherer et al. observe: “Operating plants too small to realize all scale economies imposes unit production cost sacrifices. But such sacrifices might be compensated if there are economies attributable to multiplant operation.”

1.1.2 Additional Market Conditions Affected by Market Size

Smallness of a domestic economy may create additional conditions that affect the structure, conduct and performance of its industries. For one, the small size of the domestic market imposes a supply constraint on factors of production. Given that small size is defined by the size of domestic market demand which, in turn, is based primarily on the small size of the population, small size necessarily constrains the availability of labor, especially skilled labor. Moreover, most, although certainly not all, of the small economies are also small in geographic size. Small geographical size often implies a limited and a less diversified supply of natural, irreproducible resources. Generally, a larger area will have much greater variety than a small area- of minerals, of climate, of topography, of mixture of land and water, etc. Such supply constraints create entry barriers into domestic markets. The limited availability of these resources and their high absorption by existing activities may also effectively monopolize the markets for these resources and raise their rents. This, in turn, raises the costs of production of goods utilizing these resources which, in turn, reduces demand and the number of MES firms the market can support.

The concentration of labor and other economic resources in a few economic activities in which the small economy enjoys a marked comparative advantage in world markets (e.g. oil in Arab counties, shipping in Norway, skilled labor force and an experienced entrepreneurial class in Switzerland) albeit necessary to overcome the handicap of smallness, may further imply that few other resources are left for other

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34 Scherer et al., supra, note 5, p. 3.
domestically located activities, *ipso facto*. Specialization of a small economy may thus make further diversification and production within a small economy difficult because of its creation of significant barriers to entry to alternative activities, particularly with respect to scarce technical skills and human capital but also possibly land and natural resources.

Small size may create additional barriers to entry if vertically linked markets are concentrated and controlled by existing competitors. The existence of high MES levels in one market might create high entry barriers to a vertically linked market if it requires a new entrant to enter more than one market in the chain of manufacturing and distribution or if it raises its costs of production relative to the costs of its rivals significantly.

Assume, for example, that existing distribution channels are limited and high barriers limit the creation of new distribution channels. If existing distribution channels are controlled by existing market players, new entrants face high barriers to entry into a market where they need to utilize such distribution channels to reach their customers. These conditions may, in turn, intensify the incentives for firms buying or selling in monopolistic or oligopolistic markets to grow by vertical integration and increases the height of entry barriers into the market.

Another factor influenced by the size of the market is the range of supply of ancillary services to any given product. Given proportionately larger demand for ancillary services in a large economy, specialization in service industries creates additional opportunities for producers to narrow, so far as they might wish, the range of processes for which they make themselves responsible and to extend, with advantage to themselves,

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36 Ibid.
their dependence on the services of these specialist firms to the greatest possible extent.\textsuperscript{40} In contrast, in small economies the size of the market may limit the range of ancillary services. Firms must commonly invest proportionately more resources to offset the effects of the small size and lower specialization levels of the professional community.

Size may also affect cultural variety. Small economies are more likely to have a homogenenous culture than large countries. Cultural similarity limits the variety of competitive ventures that can exist in the market, while a multi-variant culture may be more receptive to new and differentiated products and services.\textsuperscript{41} Small size may also make competition too personal, where the business elite is small and businessmen are careful not to enter each other’s domain.\textsuperscript{42}

The effect of size on institutional and technological change is open to debate. Kuznetz argues that small economies enjoy relative flexibility and responsiveness in policy-making based upon a high degree of social cohesion and identity. Possible greater homogeneity and closer internal ties may make it easier to make social adjustments needed to take advantage of modern technology and economic growth.\textsuperscript{43} Edwards, on the other hand, argues that small size will most likely inhibit technological change. He argues that in large economies the breadth and diversity of the economy facilitates private efforts to create new and better products. Shifts in industrial location and supremacy through which competition is recurrently renewed are both feasible and tolerable. In a small economy, on the other hand, these forces have limited power. In addition, in a large economy there are more resources to invest in research, a field of experiment wide enough to try a greater number of new products, and more trained people who may develop new ideas. All else equal, the dynamic forces of variety and change that foster competition tend to be stronger in large economies than in small ones.\textsuperscript{44} This last argument is limited by the flow of technologies from one economy to another. Yet where the acceptance of a new product by consumers is uncertain, a producer in a smaller

\begin{footnotesize}
\textsuperscript{40} E.A.G. Robinson, “Introduction” in Robinson, \textit{supra}, note 31, p. xiii, at p. xviii
\textsuperscript{41} Edwards, \textit{supra}, note 39, at p. 127.
\textsuperscript{42} Scitovsky, \textit{supra}, note 32, at p. 286.
\textsuperscript{43} Kuznets, \textit{supra}, note 35, at p. 28-31.
\textsuperscript{44} Edwards, \textit{supra}, note 39, at p. 127-30.
\end{footnotesize}
economy faces higher risks than a producer operating in a large economy given the different magnitudes of potential demand.

1.2 Market Structure of Small Economies

1.2.1 Economies of Scale as Determinants of Market Structure

A. Production MES and Industrial Concentration
All else equal, economic efficiency requires that production take place at minimum unit cost; that is, in plants and product-runs of at least MES size. Since production MES is related to the technical characteristics of production, it is thus assumed to be similar in all industries around the world.\(^{45}\) Studies which have used production MES measurements have found, as simple economic analysis suggests, that in a small market the number of MES plants that the market can support will be smaller than the number of MES plants which can be supported by larger markets.\(^{46}\) Scherer et al. have conducted a study regarding the number of MES plants for twelve industries which were chosen such that

\(^{45}\) Although such an assumption is, in some aspects, simplistic. Plant MES can vary from one jurisdiction to another depending on the availability of natural and other resources needed for the production of the good or service, as well as national policies which prohibit or make more expensive some methods of production (e.g. high costs of air pollution), which may affect the choice of technology. It should also be noted that all, or at least most, of the studies cited in this chapter confront measurement and definitional difficulties, such as those involved in measuring and defining a market and the boundaries of firms which are part of larger concerns. Yet they may serve to demonstrate market phenomena that characterize small economies. As will be discussed in detail in Section 1.2.2 B. Infra, overall efficiency may sometimes balance production efficiency against other factors, such as transportation costs.

\(^{46}\) Scherer and Ross, \textit{supra}, note 6, p. 111.
their boundaries are well defined (e.g. beer, cigarettes, paints, glass bottles, cement, steel, refrigerators and electric batteries) in six industrialized countries, compatible with domestic consumption in the different nations\(^ {47}\) and the technology available as of 1967. They found, for example, that in the brewing industry the number of MES plants the market could support was 29 in the U.S., 16.1 in Germany, 10.9 in U.K., 4.5 in France, 2.9 in Canada and 0.7 in Sweden; in cigarettes 15.2 in the U.S., 3.3 in the U.K., 2.8 in Germany, 1.6 in France, 1.3 in Canada, and 0.3 in Sweden.\(^ {48}\)

Lower numbers of MES plants suggest, in turn, higher industrial concentration levels.\(^ {49}\) While in large economies the MES plant sizes tend to be too small relative to the national market to warrant high levels of concentration, in smaller economies the number of MES plants the market can support is much smaller and accordingly seller concentration is likely to be much higher than in large economies. In other words, in a small economy the market structure has to be more concentrated in order to exploit production MES.

How high industrial concentration must be to secure production efficiency depends upon the balance between technology and market size. At the extreme, where the MES is larger than the market’s capacity, the market can support only one plant, or cannot support any firm at all.\(^ {50}\) Production MES can support only one plant also where MES is equal to or slightly smaller than market demand but is large relative to demand so the market can still support only one firm. However, in most situations a small market can support a few efficient plants. The study conducted by Scherer et al. indicates that in the U.S. plant scale economies compel moderately tight national market oligopoly only in the

\(^{47}\) The domestic market size constraint on plant size assumes, of course, that the production unit is tied to a national or smaller market. Any manufacturing industries that have attained significant levels of exports should escape the constraint.

\(^{48}\) Scherer et al., supra, note 5, p. 94, table 3.15.

\(^{49}\) Industrial concentration signifies the concentration of an industry as determined by the number and size of firms operating in it. The concentration ratio is, of course, a static index, characterizing market structure for a single, typically short interval in time. When a turnover among the top firms is rapid, high concentration ratios may conceal or belie the intensity of competition.

\(^{50}\) Where the size of MES is extremely larger than demand in a small economy, it may be highly uneconomical to produce the product. Studies have shown that certain industries are ordinarily found only in large economies, such as automobile industry, aircraft industry, locomotive building, and heavy machinery building, both mechanical and electrical. J. Jewkes, “Are the Economics of Scale Unlimited?” in Robinson, supra, note 31, p. 95.
refrigerator industry (a maximum of seven efficient single-plant sellers). In smaller nations, however, and particularly in Sweden and in Canada, the conflict between competitive structure and production efficiency is much sharper. Out of the twelve industries studied, Sweden has three natural monopolies (brewing, refrigerators, and cigarettes) and four more natural duopolies. In Canada, production conditions at the plant level are favorable to some degree of atomistic organization only in the shoe and weaving industries. In a study conducted by a Galmor on 210 Israeli manufacture industries (out of 246 such industries) in the 70's, industries were divided into three main categories: monopolies- where the leading firm's share in total sales was at least 50%; oligopolies- where the share of the three leading firms in total sales was at least 70%; and competitive markets- all other markets. As most of Galmor's findings were based on the number of plants rather than the number of firms operating in each industry, his study is comparable to a "survival test" of production MES. While Galmor's definitions are debatable, his findings leave no room for argument on the fact that most of the Israeli markets are highly concentrated. Monopolies occupied 33% of the market, oligopolies occupied 20% of the market, while competitive industries occupied only 47% of the market.

In sum, to the extent that industry concentration is influenced only by the efficiency imperatives associated with plant and product scale economies, we should expect industrial concentration to be higher, the smaller the markets are, and especially the smaller they are in relation to production MES. A study conducted by Scherer et al. suggests that the top 50 percent plants/MES index for each industry is strongly correlated

51 Scherer et al., supra, note 5, p. 94, table 3.15.
52 Zeev Galmor The Quality of Competition in Israeli Manufacture Industries (Commerce and Industrial Ministry, 1982) 15-6.
53 Scherer et al., supra, note 5, p. 222-3; "General Introduction" in T.G. Parry (ed.), Readings in Australian Economic Policy, Australian Industry Policy (Sydney: Longman Cheshire, 1982) p. vii: "[I]n particular, the size of a market relative to MES of plant or firm has a major effect on the degree of seller concentration in an industry." Surveys conducted on the Israeli market have shown that concentration levels are high in production goods markets due, mainly, to production technologies. The Israeli Central Agency for Statistics, Survey of Manufacture and Services 1972 (special publication no. 517, 1972). For additional studies which have reached similar results see studies cited by Scherer and Ross, supra, note 6, p. 120-1. However, in a study conducted on the Australian economy, Caves concluded that "[p]lant scale economies do not account for much of the higher producer concentration in Australia. The leading firms in many industries operate more than one plant, in part because of scale economies that extend to multiplant operation." Caves, supra, note 5, p. 321. See, also, section 1.2.2 below.
with the market size and capital requirement variables. The justification for higher seller concentration in small markets may therefore depend on the extent and character of the scale economies attributable to product runs or plant operation. If they are substantial, they might have a strong efficiency appeal.\footnote{Richard E. Caves, Michael E. Porter, A. Michael Spence and John T. Scott, \textit{Competition in the Open Economy- A Model Applied to Canada} (Cambridge, Mass.: Harvard University Press, 1980) at 4-5.}

\section*{B. Firm Concentration Levels in Small Economies}

Actual industrial concentration levels in a market are influenced not only by production efficiency imperatives associated with product and plant-scale economies. One other factor which influences concentration levels, as well as the efficiency of an industry, is firm-scale economies. If firm-scale economies are exhausted at the plant level, efficiency dictates that each firm operate only one plant. But if firm-scale economies extend beyond the efficient size of a plant, efficiency dictates that an even smaller number of firms operate in the industry, each operating several MES plants. In addition, as will be elaborated in the next section, other factors affect actual industrial concentration levels in an industry.

Studies of firm concentration in different economies have confirmed that smaller economies have a smaller number of firms per industry that larger economies.\footnote{Studies confirm the hypothesis that high levels of industrial concentration in a small economy stem from the small number of firms operating in each industry. Rosenbluth noted that Canadian concentration levels were higher, not because of significant differences in average firm size, but because of differences in the number of firms per industry; Gideon Rosenbluth, \textit{Concentration in Canadian Manufacturing Industries}, National Bureau of Economic Research, General Series no. 61 (Princeton, N.J.: Princeton University Press, 1957). Caves \textit{et al.} investigated a same phenomena. They found that it is the number of firms per industry that predominate as an explanation of differing levels of concentration between Canada and the U.S. Caves \textit{et al.}, supra, note 54, p. 158.} Studies on the Canadian economy have shown that industries in Canada are quite concentrated and often contain a few large firms: A study conducted by Marfels\footnote{Christian Marfels, \textit{Concentration Levels and Trends in the Canadian Economy, 1965-73} (RCCC Study no. 31, 1978). See also studies cited by Douglas S. West, \textit{Modern Canadian Industrial Organization} to accompany Carlton and Perloff, \textit{Modern Industrial Organization}, 2nd ed. (New York: HarperCollins College Publishers, 1994) at 33-7.} on Canadian manufacturing industries shows that in 1972 in 33.6\% of the industries the four-firm concentration ratios accounted for 60\% or more of market share, while in 60.7\% of the
industries such concentration accounted for 40% or more. These levels of concentration were noticeably higher than concentration in similarly defined markets in the U.S.: Roughly twice as many industries in Canada had 4-firm concentration levels in excess of 60% than in the U.S.\(^\text{57}\) In a study conducted in 1986 Khemani found that although there exist more industries in the U.S. than in Canada, and that would tend to produce higher levels of concentration in the U.S., there is a relatively larger number of highly concentrated manufacturing industries in Canada than in the U.S. In Canada, 24% of manufacturing industries have four-firm concentration levels greater than 70% while only 8.5% of U.S. manufacturing industries have concentration levels that high.\(^\text{58}\)

The same phenomenon was observed in other small economies, including Australia and Israel.\(^\text{59}\) Table 1 compares industrial concentration levels of the three leading firms in a survey of twelve industries in 1970 based on studies by Scherer \textit{et al.} and Schefer.\(^\text{60}\) The correlation between concentration levels and the size of the market is striking.

\addcontentsline{toc}{section}{Notes}

\footnotesize
\begin{itemize}
\item \(^{57}\) West, \textit{ibid}, pp 33-7.
\item \(^{59}\) Caves, \textit{supra}, note 5, p. 321. In Israel the 100 largest manufacturing firms produce approximately half of total industrial output. Dan and Bradstreet, \textit{The 100 of Dan and Bradstreet} (Tel Aviv: Dan and Bradstreet (Israel) Inc., 1994). For additional studies see, for example, B.A. Tzukerman \textit{et al.}, "Competition in Israeli Manufacturing Markets" (1978) \textit{Israeli Tax Quarterly}, 267-76.
\item \(^{60}\) Michael Schefer, \textit{Industrial Organization} (Tel Aviv: The Open University, 1992), at 4.3.3.
\end{itemize}
**The index of the inverted logarithm of the population**

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* U.S.A.=100
** The index of the inverted logarithm of the population

Table 1: Industrial Concentration Levels and the Size of the Market- Survey of Twelve Manufacturing Industries (1970)

Another international comparison of firm concentration ratios was conducted by F.L. Pryor. Pryor compared the concentration levels in the 60's of 11 countries to concentration levels in the U.S. His survey founds the following average concentration ratios (compared to the U.S.=100): Italy 89; France 93; West Germany 94; Japan 114; Britain 120; Holland 123; Canada 138; Yugoslavia 147; Sweden 154; Switzerland 163; Belgium 166. In general, Pryor's findings verify the inverse relation between the size of the national market and levels of industrial concentration. The highest levels of concentration were found in the smallest national markets: Sweden, Switzerland and Belgium. The low levels of concentration in France, Italy and West Germany might be explained by diseconomies of scale in the early 60's. This changed in the 60's by a strong merger tendency in all three countries, which created higher levels of concentration than those found in the U.S.

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62 Schefer, supra, note 60, at 4.3.3.
Simply put, industrial concentration levels of an industry are heavily influenced by the size of the domestic market. The larger the domestic market, the lower the level of concentration. A large market enables a larger number of optimal-sized firms to operate than a small one. As Scherer and Ross observe:

"[It appears to be established beyond question that in small industrialized nations like Sweden, Belgium, Canada and Switzerland, industry concentration levels are distinctly higher on average than in large nations like the U.S., Germany and Japan. Frequently, the markets of small nations are simply too small to accommodate many viable competitors."63

Barriers to entry into many concentrated markets in a small economy can further accentuate the structural characteristics of those industries by reducing the rate of turnover and change of existing competitors by new, more efficient ones.

Yet even in small economies, high concentration levels appear only in some of the segments of the economy. In some industries scale economies are relatively low and thus are capable of supporting numerous enterprises. One such example is agricultural crops where scale economies are very small, production elements are less specific than in manufacturing, and the product is usually not differentiated. Although entry barriers exist in the form of scarce resources (water and land), there are no significant obstacles to switching between different crops. Similarly, retailing and personal services markets are usually also characterized by low entry barriers. Low entry barriers also exist in some manufacturing industries, such as furniture and clothing. The structure of these markets is not unique to small economies.64

1.2.2 Sub-Optimal Levels of Production and Low Levels of Specialization

A. The Problem and Empirical Findings

In a small economy, the problem of high industrial concentration levels brought about by production and firm scale economies is further accentuated by sub-optimal levels of

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63 Scherer and Ross, supra, note 6, p. 87; Gideon Rosenbluth, supra, note 55, p. 75-87.
64 Schefer, supra, note 60.
operation. To the extent that small size constrains the development of even one firm of efficient scale—on a national or a regional level—a problem of sub-optimal production appears. This indicates that a firm operating in the domestic market alone cannot reach the levels of production which would enable it to take advantage of scale economies and thus minimize its real costs (if not its prices) by producing at the most efficient levels. Consequently, allocative efficiency is not achieved and resources are consumed through wasteful processes.

However, even in industries in which market demand can support several MES plants, a problem of production at sub-optimal scale still exists. A recurring observation in studies of manufacturing industries in small economies like Canada, Sweden, and Australia, is that a considerably larger fraction of all output is produced in sub-optimal volumes and sub-optimal plants, much lower than pure MES considerations would suggest.65 Runs of single products in many plants are short, with the result that excessive time is used in changeover for each unit of output. The machinery used is often inefficient because indivisibilities in the use of the most efficient methods of production can be overcome only at higher scales of production for individual products and plants than exist in small plants. Accordingly, the costs of production in many industries are higher than they would be if the best contemporary techniques of production were employed. Such small-scale operation can thus have a significant impact on the efficiency and international competitiveness of firms operating in the market if the size of their production units is below MES and if penalties for such below-MES operation are significant. This has been recognized as the most important cause of small economies' inefficiencies.

Diversification also leads, in many cases, to lower levels of specialization than in larger economies. Firms tend to be more concerned with the problems of shifting production from one product to another as circumstances dictate than with making an outstanding success with any single product. Not a little of the success of firms in large

65 See, for example, H.C. Eastman and Stefan Stykolt, *The Tariff* (Toronto: MacMillan of Canada, 1967) at p. 13; Scherer *et al.*, *supra*, note 5, p. 51 and studies cited there. See also text and footnotes of this section below.
markets seem to derive from the concentration of all the efforts of a firm on mastering the problems of design and production of a quite narrow range of specialized products.

In their seminal study, *The Tariff*, 66 conducted on a sample of 16 Canadian manufacturing industries, Eastman and Stykolt found that approximately one-third of the plants were of plant MES. In another third, less than 60% of industry capacity was optimally efficient. In only one industry was all industry capacity of the plant MES. They concluded that a significant percentage of Canadian production comes from plants of technically inefficient size. Consequently, Canadian industries are ‘overcrowded’ with sub-optimal plants which have short production runs, thereby incurring excessive costs of production. 67 The high number of industries in which inefficient capacity is a large proportion of the total is especially striking because a similar phenomenon appears to be absent in the U.S. manufacturing industry. Bain found that plant size in the U.S. was generally satisfactory for all industries, where on average 80% of the firms in all manufacturing industries operate plants which are above plant MES. 68 Consequently, real costs of production are higher in Canada. 69 Results of other studies have confirmed the Eastman-Stykolt hypothesis that firms in Canada’s oligopolistic, protected markets construct less-than-MES plants. 70 Comparative studies have also supported the hypothesis

66 Eastman and Stykolt, *ibid*.


68 Bain observed that “...[t]he share of an industry’s output supplied by plants of optimal or near optimal scale generally falls between seventy and ninety percent...Thus firms supplying the preponderance of an industry’s output more or less uniformly supply it from plants of efficient scale”. Bain, *supra*, note 5, p. 185.

69 Eastman and Stykolt have observed that “[s]econdary manufacturing industries are often high in cost, in part because of the small scale of output of a high proportion of plants which therefore do not exhaust available economies of large-scale production.” Eastman and Stykolt, *supra*, note 65, p. 3. They state that “[t]he main factor adversely affecting productivity in Canadian manufacturing is the prevalence of plant capacity of sub-optimal size.” Eastman and Stykolt, *supra*, note 65, p. vii. This scale inefficiency is reflected, *inter alia*, in low output per man-hour in the Canadian industry. The Economic Council of Canada has estimated in 1974 Canadian output per man-hour at 79% of that of comparable U.S. industries. See RCCC, *supra*, note 6, p. 44.

70 For example, Paul Gorecki calculated MES plants by the survivor method for plants in Canada and compared these estimates to MES plant sizes calculated by using engineering and survey techniques. In only one of the industries in Gorecki’s sample did the estimates come close to matching. P.K. Gorecki, *Economies of Scale and Efficient Plant Size in Canadian Manufacturing Industries* (Ottawa: Federal Department of Consumer and Corporate Affairs, 1976). Khemani has concluded that studies on individual Canadian industries suggest that the observed levels of concentration would perhaps be higher if firms would exploit fully all the potential economies of scale. S. Khemani, “Merger Policy and Small Open
that firms in small economies operate with sub-optimal sized plants, especially in industries where economies of scale are very large. Many firms operate multiple plants, presumably of sub-optimal plant scale, when they might produce the same output at lower unit costs in a single large-scale plant.\textsuperscript{71}

Notwithstanding the question of whether or not \textit{plant-scale} economies are the main source of a small economy's inefficiencies,\textsuperscript{72} many studies have confirmed the

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\textsuperscript{71} Studies performed by the RCCC on Canadian markets have found, however, that Canadian plants are not, in general, markedly smaller than those in other countries in many industries, and, for the most part, Canadian industry cost disadvantages are not caused by inadequate scale at the plant level. RCCC, \textit{supra}, note 6, p. 52-4, 67: “[u]ndoubtedly Canadian plants in many industries are smaller than those in other countries. But, as Scherer et al. demonstrate, when the low end of the plant size distribution is excluded, Canadian plants are not, in general, very much smaller...Plant-specific economies of scale are significant in a few Canadian industries but have not, in general, imposed a major cost disadvantage on Canadian firms in serving the Canadian market.” Also, the Canadian Department of Industry, Trade and Commerce, in their study \textit{Establishment Size and Productivity in Manufacturing Industries in Canada, 1973} (1976) suggested that plant size had no significant influence on productivity, except in a very few industries. It suggested that a large part of the productivity problem may be in the way production is organized within Canadian plants. E.C. West, in a study conducted for the Economic Council of Canada, titled \textit{Canada-United States Price and Productivity Differences in Manufacturing Industries, 1963}, also suggested that the cause of inefficiency at the plant level lies in the larger number of products manufactured within Canadian plants. A similar view was advocated as early as 1957 by the Royal Commission on Canada’s Economic Prospects.

\textsuperscript{72} In 1966 Bain studied comparative plant sizes, plant concentration and leading company concentration covering eight nations. One prominent finding of his study was that the average size (measured in employment terms) of the largest plants outside the U.S. was considerably smaller than the size of plants of comparable U.S. industries. Letting average size of the largest 20 U.S. plants at any given industry be indexed at 100, Bain calculated that the relative plant size for his eight nation example was 78 for the U.K., 39 for France, 34 for Japan, 29 for Italy, 28 for Canada, 26 for India and 13 for Sweden. Bain calculated that the proportion of industries in which more than 30 percent of all employment worked in plants sufficiently small to bear unit cost penalties of 5 percent or more ranged from 32 percent in the U.K., to 82 percent in Sweden and 91 percent in Italy. He concluded that the relatively small scale of leading plants outside the U.S. implied production scale economy sacrifices. Joe S. Bain, \textit{International Differences in Industrial Structure} (New Haven: Yale University Press, 1966). Scherer et al., in their study of multiplant economies of scale of six nations, found that average plant sizes are about the same in Germany as in the United States, slightly smaller in the United Kingdom, and considerably smaller in Sweden, Canada and France. For example, in the brewing industry the average number of employees per plant expressed as a percentage of average employment in the top twenty plants in the most closely comparable U.S. industries was 23 in Canada, 13 in Sweden, 27 in France 61 in West Germany and 100 in U.K. They calculated that Canada’s domestic market could be served by 2.9 MES breweries and 6.6 cement plants, yet the four largest firms in each industry operated respectively 36 breweries and 16 cement plants. Scherer et al., \textit{supra}, note 5, p. 63. Similarly, Caves has analyzed data on plant size distribution by employment for the
hypothesis that small economies suffer from *product-scale* diseconomies. Contrary to what untutored intuition might advise, the problem of sub-optimal plant scales in small economies is accentuated by the large range of products produced by manufacturers in many plants. Since each plant produces a much more diverse line of products than do similar-sized plants in the larger economies, firms employ less specialized equipment, have a higher proportion of set-up and downtime costs, and experience fewer of the economies of scale that arise from "learning by doing". Caves, in his study *Diversification, Foreign Investment and Scale in North American Manufacturing Industries*, has shown that Canadian firms (and plants) in protected oligopolies have an output of products much more diverse than that of similar-sized firms (and plants) in the U.S. Similar conclusions have been reached in other studies of the Canadian economy. For example, it was observed that to provide a full range of nuts and bolts, the Steel Company of Canada, Limited (Stelco), has some product runs that are much shorter than those of its competitors in the U.S. and in Japan. A similar phenomena was observed by Caves in Australia. The problem of achieving plant and product-specific economies in small economies was also recognized by Scherer *et al.*:

"The problems of achieving good-sized production runs are especially acute in small nations like Sweden and Canada, where firms appear to be not much more specialized than their large-nation counterparts and where characteristically higher seller concentration, and hence larger leading-firm shares of a product's total demand, is not sufficient to compensate in the optimal lot size equation for the small overall quantity of demand." 

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U.S., U.K. Canada and Australia in 1977. He found that Canada has 70.3 percent of its manufacturing employment in plants employing 100 or more, whereas Australia has only 61.9 percent; comparable figures for the U.S. and U.K. are 74.6 and 79.8, respectively. Caves, *supra*, note 5, p. 316. See also R.M. Colon, *International Transport Costs and Tariffs: Their Influence on Australian and Canadian Manufacturing*, (Kensington: University of New South Wales. 1980) at 115-45.


Scherer *et al.*, *supra*, note 5, p. 51.
Their study found, for example, that in 1970 only one type of antifriction bearing was produced by a Canadian firm in sufficient volume to warrant a straight-line, machine-through-assembly operation. Paint manufacturers operating in Canadian national markets reported that average batch sizes in Canada were one-fifth to one-half those experienced in the United States. Similar average run-length differences were cited by Canadian glass bottle manufacturers. This problem is accentuated by the fact that these diseconomies of small-scale production at the product level are often highly significant.77

B. Factors Influencing the Size of Production Units

However, a verdict of inefficiency on the size of production units (whether at product or plant level) does not necessarily imply criticism of the overall efficiency of the industry or the effectiveness with which businesses in the industry maximize profits. The combination of factors which contribute to industry efficiency or a businesses’ success is not simply a minimization of average costs of production. Several other factors, not related to production economies of scale, which have so far mainly been neglected, have been found to influence production levels at the product/plant level. Although plant and product MES provides us with an objective measurement, studies that estimate efficiency and market concentration by comparing the ratio of actual to optimal plant and product scale MES suffer from the problem that optimality does not depend upon engineering estimates of plant size and product scales alone. In practice, the optimum size of a plant may also be heavily influenced by other factors, surveyed below, which limit the size-increasing effect of scale economies. Then the criterion for cost minimization is not the

77 Scherer et al. concluded that in 4 and possibly 7 out of the 12 industries examined product-specific economies were more important than plant-specific economies. For example, they illustrated how in a small and medium-sized antifriction bearings operations a job-lot method was used, while those operations producing larger volumes adopted a straight-line operation. They indicated that manufacturing cost savings as high as 50% could be gained by shifting from one method to the other. This illustrates an extreme case in which product-specific economies can be more important than plant-specific economies. Scherer et al., supra, note 5. Michael Spence showed that Canadian industries have a greater proportion of non-production workers than do comparable U.S. industries. The difference is probably a function of both the greater diversity in the output of Canadian plants and the smaller size of the Canadian firms. These findings suggest that significant management savings might be forthcoming if Canadian activities were less diversified. Richard E. Caves et al., Studies in Canadian Industrial Organization (RCCC Study No. 24, 1978).
attainment of the lowest possible unit production costs only, but rather minimizing the sum of production plus additional costs created by market conditions which are surveyed below. One must not ignore the interaction between these latter costs and scale economies in determining market structure.

The influence of such additional costs created by market conditions is higher, the lower the “price” a firm has to pay for its operation at sub-optimal levels, i.e. the slope of the long-run average production cost curve before it reaches the point of plant MES, as well as the range of minimum costs on such a curve, which varies from one industry to another. Sub-optimal scale operation is more likely when the long-run unit production cost function is relatively flat than when unit costs fall sharply with increased plant size.

The crucial question thus focuses on the determinants of market structure: Why a substantial fraction of the production in many industries in small markets takes place in plants and production runs too small to achieve all scale economies; What are the barriers to entry that impede new entry or added capacity that would exploit economies of scale which exist in small markets. These facts can also throw light on market efficiency: Does increased concentration promise substantial benefits in the way of increased efficiency?

There are numerous reasons for the persistence of small and diversified plants in small markets, two of which have already been surveyed above. Without doubt the most important explanatory variable is market size relative to MES. As noted above, markets in small economies do not provide much breathing space. In some markets there is insufficient room for even a single plant of production MES. Mere paucity of demand is not, however, a sufficient explanation of the plant size and product runs actually observed, since, as noted above, in many industries there are more plants and product-runs of smaller size than what is needed to squeeze production economies out of a small market. The second variable, surveyed above, is the height of cost penalties incurred by production at below-MES levels. Three additional static variables have been identified as having significant influence on sub-optimal levels of production: transportation costs,

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78 Caves has found that Australian plants are smaller in industries that have a large MES but low drawbacks to suboptimal scale. Caves, supra, note 5.
79 Eastman and Stykolt, supra, note 65, p. 56
demand for diversity, and product differentiation. Due to their significant effect on market performance, they deserve a detailed analysis.

**Transportation Costs**

Standard analysis shows that transportation costs, i.e. the costs of delivering output to customers or bringing customers to the place where service is provided, tend to rise with volume after some output level is reached, primarily at the level of a single plant or a geographically clustered plant complex: The more output is produced, it may be necessary to reach out to more distant customers. This, in turn, leads to increased transportation costs per unit sold. The magnitude of the increase depends upon several variables.\(^8^0\) One is the size of the plant in relation to the size of the market served. If the plant supplies only a fraction of market demand, it may be able to increase sales appreciably without expanding its geographic reach.\(^8^1\) The second factor is the nature of the pricing system. Transportation costs absorbed by the producer rise with output when prices are uniform in all markets or when the price in more distant markets is set by more advantageously located rival plants. The third variable is the geographic structure of transportation costs. Usually freight charges rise less than proportionately with the distance shipped. The fourth variable relates to the geographic distribution (density) of customers, i.e. the density of demand per square mile. For consumer goods (but less consistently so for producer goods) demand density depends primarily upon the density of the population distribution and the purchasing power of the population. Finally, the height of transportation costs is determined by the relationship between the commodity's production cost to its bulk. Unit transportation costs for low-value commodities rise relatively rapidly with distance shipped, while for compact, high-value items they tend to rise slowly. For example, some products such as cement, beverages and glass bottles, are not shipped far beyond the regions in which they are produced because they have high transport costs per dollar of value.

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\(^8^0\) Scherer and Ross, *supra*, note 6, p. 105.

Accordingly, if transportation costs are added to the optimum plant-size analysis and the cost of production and delivery becomes the criterion, then optimum scale would surely decrease, especially for widely dispersed markets, since average total cost per unit will eventually rise with output even if the production process itself shows increasing returns to scale. As noted above, this trade-off between transportation costs and scale economies is largely influenced not only by the size of the MES but also by the added costs of production or operation below plant MES levels: the slope of the long-run average cost curve before reaching the point of MES. The plant size chosen will be greater, the steeper is the downward slope of the unit production cost curve and the less steep is the upward slope of the unit transport cost curve in the relevant range, *ceteris paribus*. Thus, when the geographic territory served is large and dispersed it may be more profitable to operate several spatially dispersed plants than a single larger centralized unit. This is the same rationale which explains some multiplant economies of scale.

If plant MES is large relative to demand, this might justify operation of plants at sub-optimal levels of production. In other words, when outbound transportation costs are substantial in relation to product value, plants are often too small to minimize production costs but might be optimal in the sense of minimizing production plus shipping costs in geographically vast and sparsely populated markets.

Transportation costs, population density and other factors which affect total average costs of production and distribution are, however, country or region specific. No universal optimal size plant can be calculated where these variables are included. Since the smallness of the market is defined in terms of overall market demand, transportation costs may vary widely from one small market to another, and thus it is difficult to draw any general conclusions regarding optimal plant size in small economies. While in dispersed economies transportation costs may constitute a high barrier (such as Canada’s western provinces), in others population might not be dispersed (Australia where almost

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83 This discussion assumes that the firm still enjoys economies of firm-scale over its total output. Scherer *et al.*, supra, note 5, p. 24; Eastman and Stykolt, *supra*, note 65, p. 76-9
84 Scherer *et al.*, *supra*, note 5, p. 87.
90% of the population are located in 5 main shore cities) and in others markets geographic size might be very small (Israel). Nonetheless, while the phenomenon of regionality created by transportation costs is not unique to small economies, the effect of such costs is much stronger in a small market where demand for each product is lower than in a larger market. Generally speaking, in small dispersed markets high unit transportation costs and a dispersed population motivate many firms to construct sub-optimal scale plants to serve a local market. Production costs of such firms might be above those of an MES plant, but the total of production and distribution costs will be minimized. Accordingly, studies which have taken into account transportation costs support the conclusion that firms in small markets have constructed plants at below MES to reduce costs by serving a small market located near the plant. Studies conducted by Scherer et al. have found that the top 50 percent plant sizes in an industry are larger in relation to MES, the larger is the volume of output supplied by leading sellers (associated in turn with both overall market size and leaders’ market shares), the lower unit transportation costs are per dollar of product value, the more steeply the unit production cost curve declines between one-third MES and full MES, and the more rapidly industry output has been growing.85

Transportation costs affect market efficiency in one other way. As Eastman and Stykolt have pointed out, transportation costs decrease the effective size of a market area and create regional markets which allow producers in different regions to charge prices up to the price at the other sources of supply plus transportation costs hence. The price in a regional market can vary from this maximum price down to a level where it is equal to the price in other regions minus costs of transportation, without causing a movement of goods.86 In other words, regional markets are protected from outside competition by transportation costs, and thus firms can operate small, widely dispersed plants to serve these isolated markets without fear of competition from outside firms.

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86 Eastman and Stykolt, supra, , note 65, p. 15.
Market Demand for Diversity

As noted above, a significant factor that influences sub-optimal levels of production in many plants in a small economy is the diversity of production within a plant (associated, in turn, with diseconomies of product level). While studies suggest that longer product runs can substantially reduce costs in some industries, greater diversification in a small plant or firm may not necessarily be inefficient from the firm's point of view. This diversity might be a response to the demand of the market that firms in many industries either supply a full range of products or face substantial price and sales penalties. Accordingly, plants with inefficiently small product runs may survive because they supply a diversity of products, which are often differentiated, to satisfy consumer demand for variety, broad lines of products, or special service, and commanding a price premium sufficiently high to offset production scale economy sacrifices.\(^7\) While such consumer preferences may create or enlarge firm-level economies, they may also affect product runs. Producers in multi-product industries cram relatively more low-volume products into the production plans of their plants and therefore sacrifice product-specific economies. As Caves has observed, building a small plant or a diversified one are alternative ways to adapt to limited demand in a small market. Plants of a given size in a small economy are thus more diversified than plants of similar size elsewhere, because the other alternative open to their managers is to make their plants more specialized but smaller still.\(^8\)

In addition, in some markets (such as Canada) consumers, and particularly industrial buyers, exhibit a strong preference for some diversity in supply sources of similar products, even if it means fragmenting what could otherwise be a more efficient—albeit more tight—market structure and causing unit costs to be higher. For example, consumers may value both the security against total interruption of supplies and the bargaining power conferred on them by being able to play one producer off against the other. Even when individual buyer's purchases are normally concentrated with a single supplier at any moment in time, there seems to be a self-regulating process under which

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\(^7\) Scherer, et al., supra, note 5, p. 256-7.

\(^8\) Caves, supra, note 5.
different firms' choices are dispersed sufficiently to keep two or more contending sources available.89

Product Differentiation
The third static factor influencing plant size is product differentiation. Product differentiation means that the product of a firm in an industry is not identical to that of others. In other words, the elasticity of substitution between the products produced by different firms is not infinite; the products are not homogenous.90 Product differentiation may lead to the installation of small-scale capacity because through product differentiation firms may be able to carve out for themselves a small but profitable niche in some special segment of the market, which makes the price elasticity of the demand curve for a rival firm's product less than it would otherwise be. This means that the expansion of productive capacity for an existing product or the installation of capacity for a new product would cause a greater fall in price because of the loyalty of consumers to other brands than would exist if such product differentiation did not exist. In other words, product differentiation makes it more difficult for new entrants to replace the production of other firms. Firms thus tend to make the increments to capacity smaller than they would otherwise be in order to trade off the higher costs of production in favour of a smaller decline in price or net return.91

These tendencies are much stronger in a small market. Where the deterrent effect of economies of scale is small in relation to the inducement to entry, the probable market structure is one in which several firms resort to non-price competition to sell differentiated products that are close substitutes. On the other hand, where economies of scale are important, actual or potential brands are fewer, and relatively smaller advertising outlays

89 Scherer, et al., supra, note 5, p. 133
90 The dissimilarity between products may be physical and arise from different technical processes. Product differentiation can also be created where products are essentially similar or identical. In this case differentiation is achieved through selling techniques, chiefly advertising, which cause the loyalty of customers to adhere to one brand or another. Competing firms may deliberately differentiate their products in order to exploit particular segments of the market and to create a preference for their products through this differentiation. Scherer and Ross, supra, note 6, p. 96.
are sufficient to establish the identity of each producer vis-a-vis its rivals. In the aggregate, outlays for selling in these industries need not be large to create a barrier against new entrants, and profits are abnormally high. Thus, differentiation is a way of mitigating diseconomies of scale.

However, the product diversification sword can also cut in the opposite direction. By making entry into an industry very difficult for potential entrants, it may bar entry for new firms altogether and thus allow established firms to grow with the market until eventually they reach efficient size. If they grow long enough, even by the addition of small units of capacity, the time eventually comes when existing installations are replaced by new ones which can reach efficient size.

In addition, product differentiation might affect market concentration levels by creating or enlarging firm-size economies. There may be economies of scale in marketing which make distribution of multiple products by one firm at large volume more efficient, due to the small quantities of each product that the market can absorb. At least in some industries and especially in certain consumer goods industries, there are appreciable economies of scale in several aspects of sales promotion and product differentiation. These advantages to size can create imperatives to market concentration above the level required to realize all narrowly construed production and physical distribution economies.

In sum, the question regarding the efficiency of product differentiation in small economies is an unanswered one, which depends on specific market conditions and production efficiency sacrifices. How the advantages and disadvantages of size in production differentiation balance out is always a quantitative question. Caves et al. have conducted a study on product differentiation which found a significant positive relation between concentration and advertising in industries selling convenience goods to consumers. This result may imply either that advantages of large scale promotion allow some firms to expand to sizes larger than warranted by scale economies or that they allow some firms to wrest market shares just large enough to exploit scale economies in

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92 RCCC, supra, note 6, p. 48.
93 Scherer and Ross, supra, note 6, p. 137.
production. Eastman and Stykolt have concluded that in Canada product differentiation seemed to play some role in affecting the degree of efficiency of the industries. Although in no case was the level of significance very high, the direction of the influence was clearly that differentiation tends to reduce efficiency, which means that product differentiation must be a barrier not only to the entry of new firms but also to the expansion of existing firms.

In addition to the factors cited above, other static factors may induce firms to produce at sub-optimal production levels. One such factor is the height of input transportation costs and economies of labor. If, for example, the plant is located in a sparsely populated area, it might incur high costs of labor in order to obtain enough workers for its plant. Also, historical legacies from periods where MES was much smaller help explain the persistence of small plants, especially in industries with durable, capital-intensive production equipment. The speed at which such legacies are shed appears to depend, in turn, importantly upon the vigor of competition: Vigorous domestic or import competition stimulates modernization while cartelization, by dulling incentives, retards it. Another factor is the amount of capital required to build MES plants. As Eastman and Stykolt argue, the supposition is that if the amount of capital necessary to erect and operate a plant of MES is very large, this may be an inducement for existing firms to add to capacity or for firms entering the industry to install units of sub-optimal scale, due to the need to husband their resources or because substantial sums were not available to these firms or could not be raised without difficulty. This, then, would lead to the installation of inefficient capacity in an industry. Moreover, there are all sorts of ad hoc reasons for the survival of sub-MES facilities, such as strong local product preferences, taxes graduated in favor of small suppliers, and governmental policies. For example, in Australia state policies of subsidizing local industrial development have promoted the construction of branches of each industry in each state. As a consequence Australia’s

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94 Caves et al., supra, note 54.
95 Eastman and Stykolt, supra, , note 65, p. 104.
96 Ibid.
97 Scherer, et al., supra, note 5, , p. 382.
manufacturing centers are non-specialized and the typical industry is spread rather evenly among them.\textsuperscript{98} These factors add another important deterrent to efficient scales of production.

Some dynamic factors also have large influence on plant and product capacities. One such factor is the adjustment lags of constructing MES sized plants. As Scherer \textit{et al.} observe, the essence of the problem is that investment occurs in discrete lumps, providing an increment of capacity which will satisfy growing demand for some time to come. The larger the investment lump, the longer will be the time interval before a further plant expansion is required. Where economies of scale exist, building larger capacity increments leads to lower capital costs per unit of capacity. But building a very large unit means that an outlay is incurred immediately for capacity which will not be needed until later, and whose provision might be deferred, freeing funds for alternative remunerative uses. Or, it may involve accumulating a capacity deficit and incurring premium costs to satisfy or suppress current demands by other means. The decision maker must trade-off achieving scale economies against the cost of carrying excess capacity temporarily or sustaining a temporary capacity deficit. The smaller the market for any given growth rate, the more time it takes to accumulate a demand increment sufficient to absorb the capacity of a lumpy new MES plant.\textsuperscript{99} Also, firms are less fearful of the depressing effect on price of additions to capacity if the market is growing rapidly than if it is growing slowly or not at all. Firms would thus be more likely to install large-scale units of capacity in rapidly growing markets than in slowly growing ones.\textsuperscript{100} Another dynamic factor is the high levels of interdependence between firms in a small, concentrated markets. This will be the focus of the next section.

Whatever the effect of the above surveyed factors in a given industry, one conclusion is clear: Scales of production, as well as industrial concentration levels, are not completely constrained to their present level by production scale economies. Yet, as studies have shown, transportation costs, market density, product differentiation and other

\textsuperscript{98} Caves, \textit{supra}, note 5.
\textsuperscript{99} Scherer, \textit{et al.}, \textit{supra}, note 5, p. 35.
\textsuperscript{100} Scherer and Ross, \textit{supra}, note 6, p. 124.
variables account for much less variance in MES-deflated plant sizes than the market size and seller concentration variables, shortfalls in which could cause real scale economy sacrifices uncompensated by transportation cost savings.¹⁰¹

C. Offsetting Some of the Effect of Sub-Optimal Plants by Firm and Multi-Plant Economies

Some of the inefficiencies created by diseconomies of product and plant scale can be offset by firm and multiplant scale economies. The efficiency of firms depends not only on the size of their plants in relation to the lowest point on the long-run average production cost curve, but also on the number and size of plants operated by the firm because of the existence of economies that are external to plants but internal to firms. Economies of firm scale are relatively more important in lowering average costs, the smaller the size of plant actually operated by the firm. This means that industries in a market supplied by plants that are typically sub-optimal in size are more likely than others to be composed of plants belonging to multiplant firms. These plants avoid the penalties of being too small a firm size even though they cannot avoid the penalties of having too small plant sizes. Similarly, multi-plant economies can also lower average total cost for reasons surveyed above, mainly reducing transportation costs.

1.2.3 High Levels of Aggregate Concentration

The interdependence between market players might extend, in a small market, beyond the scope of a specific industry. Due to the smallness of the market, which affects the number of market players and their relative size in the market, large firms usually account for a large proportion of the total economy’s assets and revenues and of economic activity.¹⁰² Economic studies have shown that aggregate concentration (i.e. the percentage of economic activity accounted for by the largest firms in the economy) in small markets is

¹⁰¹ Scherer, et al., supra, note 5, p. 127.
¹⁰² For Israeli conglomerate concentration levels see the Columbus Capital Corporation, supra, note 39.
substantially higher than in large ones.\textsuperscript{105} For example, while the U.S. market is ten times larger than the Canadian market, aggregate concentration ratios in Canada are twice those of the U.S.\textsuperscript{104} Studies further show that although firms in small markets can be small when compared with the largest firms in the world, they are large relative to the overall size of the small economy or relative to the sizes of individual industries.\textsuperscript{105} This concentration factor is sometimes enhanced by a network of business connections between different conglomerates.\textsuperscript{106}

The size of the economy also has significant effect upon the internal structure of these large enterprises. If an economy is small, a domestic firm can become large only by diversification. Alternatively, if the market it serves reaches beyond the economy's boundaries, it can grow large by serving the market. In large economies the large enterprise may be a domestic firm that limits itself wholly to a single large industry.\textsuperscript{107}

The reciprocal attachments between separate business units of a large enterprise enable the realization of scale economies in marketing, financing, and business relations with other entities. They also enable firms to overcome entry barriers into vertically integrated monopolistic or oligopolistic markets.\textsuperscript{108} Some scholars further argue that large, strong enterprises are better suited to meet international competition, since they will be the better able themselves to enter those markets if they have a strong home market which gives them the critical mass to become world players.\textsuperscript{109} On the other hand,

\textsuperscript{105} See, for example, the studies cited in West, supra, note 56, p. 8-11.
\textsuperscript{104} RCCC, supra, note 6, p. 26-30.
\textsuperscript{105} A study based on data from Statistics Canada regarding the average assets of corporations among the 100 largest non-financial corporations in Canada, the United States and the rest of the world in 1975 shows, for example, that in the iron and steel industry the three leading companies' size was about 1.2 billion dollars while the four leading U.S. firms were approximately 4.5 and the 17 leading world companies were about 4.4 RCCC, supra, note 6, p. 405. See also R.S. Khemani, "The Dimension of Corporate Concentration in Canada, in R.S. Khemani, D.M. Shapiro, and W.T. Stadbury (eds.) Merger, Corporate Concentration and Power in Canada" (Halifax: Institute for Research on Public Policy, 1988). He found, for example, that the leading 25 enterprises held 42.5 percent of total corporate sector assets in 1977 and 45.3 percent in 1983. The leading 100 enterprises held 64.8 percent of such assets in 1977 while holding 66.9 in 1983.
\textsuperscript{106} See, for example, John Porter, The Vertical Mosaic (Toronto: University of Toronto Press, 1965).
\textsuperscript{107} Edwards, supra, note 39, at p. 124.
\textsuperscript{109} Foster, supra, note 10, p. 156; Kennish and Ross, supra, note 29, p. 9.
some economists argue that competitive domestic markets are the breeding grounds for firms that can compete successfully internationally.\textsuperscript{110}

Yet the primary concern raised by high levels of aggregate concentration and large firm size is that decisions taken by large corporations may have consequences that extend well beyond specific industries to produce political and social as well as "purely" economic results.\textsuperscript{111} Economic concerns about large absolute firm size derive from the potential for competitive disadvantages bestowed on the smaller firms by limited capital, distribution and advertising channels and production factors. For example, where distribution channels are limited due to economies of scale, control of a distribution channel by a conglomerate may well grant its components a comparative advantage over their rivals. Also, one industry’s productivity may affect another’s if the products of one are inputs of the other. In other words, allocative efficiency which refers to the economy-wide allocation of resources and its impact on particular structures and practices in particular industries, is thus affected throughout the market, over a range of industries.

Although the main focus of the analysis is economic, it is hard or even impossible to make a clear distinction between economic power on the one hand and social and political power, on the other. Among the potentially important social implications of major concentrations of corporate power is the influence exerted by corporations upon public authorities and public opinion. In general, as the size of economy decreases, the large corporation might be expected to become a more dominant force in public decision-making.\textsuperscript{112} Some commentators go further and argue that the conflicts between particularistic, special-interest organized economic groups will ultimately dissolve the consensus on values indispensable to the successful functioning of the democratic process.\textsuperscript{113} This latter charge is not, however, substantiated by facts and it rests on a political theory much too simple to explain either the rise or fall of democratic societies.\textsuperscript{114}

\textsuperscript{111} RCCC, \textit{supra}, note 6, p. 13.
\textsuperscript{112} RCCC, \textit{supra}, note 6, p. 337.
\textsuperscript{114} Williamson, \textit{supra}, note 20, p. 17.
These considerations illustrate another basic conundrum facing policy-makers in a small economy. While average firm size in many industries is below "world-scale", policies to promote larger firm sizes may exacerbate the potential problems associated with already high domestic levels of aggregate concentration.

1.3 The Effects of Smallness on the Nature of Competition and on the Performance of Firms

The unique structural characteristics of a small economy may affect the quality of competition and the performance of firms. While in a small economy industries can take one of many structures and thus behave differently, the conduct and performance of firms under three market structures, relatively more prominent in small economies than in large ones, deserve extended consideration. The first is a natural monopoly, the second a market dominated by a single firm, and the third is an oligopoly structure. As will be argued, technological optimum size of an economy is a necessary but not sufficient condition to ensure the utilization of the most efficient means of production. The number of firms that the market can support affects the nature of competition in the market. In this sense, an economy is too small if it fails to provide the competitive conditions necessary to spur efficiency.\(^\text{115}\)

1.3.1 Natural Monopoly Conduct and Performance

Natural monopolies are created by very large MES and are further secured by additional entry barriers into their market. Small market size, by increasing the size of MES relative to demand, increases the prevalence of natural monopolies. Under increasing returns to scale over the whole or almost all the range of the market, production by a single firm is technologically more efficient, since it prevents the wasteful duplication of fixed costs. Accordingly, in natural monopoly markets no competition is feasible in the market,

\(^{115}\) Scitovsky, supra, note 32, at p. 283.
although competition for the market may take place unless entry barriers other than MES are prohibitively high. Thus, market forces alone cannot constrain natural monopolies; Adam Smith's "invisible hand" has limited power in the natural monopoly domain. In industries with downward sloping cost curves over the relevant range of production, a monopoly is the natural result.

Monopolies, however, do not have to share the benefits of their efficiency with consumers. Rather, they have economic incentives to abuse their monopoly power to charge monopoly rates and to restrict output. Monopoly pricing, the most recognized evils of monopoly, harms consumers and reduces economic efficiency. Under perfect competition, output of a commodity expands until price falls to the point just equal to each firm's marginal cost of production, which, in equilibrium, will equal long-run average cost. Under a monopoly structure the output will be smaller and price higher, given that a monopolist faces a downward sloping demand curve and the more it sells, the lower the price it receives (assuming no price discrimination is possible). In the extreme case the natural monopolist will equate marginal cost and marginal revenue in order to maximize its profits. This, in turn, reduces economic efficiency by diverting society's productive energies to less valued undertakings and thereby distorting resource allocation away from the maximum satisfaction of consumer wants.\(^\text{116}\) The amount by which the decrease in consumer surplus exceeds the increase in profit by an amount is known as the deadweight loss, since it is a loss to consumers without an offsetsing gain to producers. This is the dollar cost to society of the monopolist's decision to produce monopoly output and price above the competitive level.\(^\text{117}\) It also creates a wealth transfer from consumers to the monopolist, in that they surrender some of the consumer surplus they would have enjoyed in a competitive market to the monopolist.


\(^{117}\) This measure is exact only if the commodity involved is sufficiently insignificant that changes in its price do not noticeably change consumers' real incomes and if it is considered appropriate to work with unweighted sums of losses incurred by affected firms and households. Nevertheless, it is widely employed as a useful approximation of social cost. See Richard Schmalensee, "Another Look at Market Power" (1982) 95 Harv. L. Rev. 1789 at p. 1791.
In addition to cost distortions on the demand side, natural monopolies may cause cost distortions on the supply side. It has been suggested that firms under competitive pressure will be more driven to succeed at keeping costs low while monopolists will tend to pay little attention to cost-cutting strategies and engage in slack, thus having greater tendency to let costs rise, leading to what is often called “X-inefficiency”. Thus, for given goods and quantities, a monopolist may produce at a higher cost than would a competitive firm. This, in turn, creates production inefficiency.

From a dynamic perspective, natural monopolies do not have strong incentives to engage in innovation. Rather, they may possess strong incentives to impede innovation and thus reduce the rate of economic progress. Since the natural monopoly has already captured the entire market, it has disincentives to innovate or to use new technologies that will decrease the size of economies of scale. Yet if a new technology has the potential to reduce production costs without reducing economies of scale, then the natural monopolist may have stronger incentives to develop and apply this technology than a competitor in a competitive market, given that the spill-over effects of such innovation are lower than in a competitive market, where there is a higher likelihood that another firm will capture some of the innovation’s benefits. Monopoly is also inimical to change. A plant will presumably remain in production as long as its total revenue covers variable costs, and variable costs perforce increase with plant obsolescence. Moreover, monopoly power lengthens the profitable life of equipment by causing the plant to be used less intensively, that is, it reduces the rate at which unit variable costs rise over time. Likewise, when demand increases, monopoly delays the construction of new facilities.

Apart from these purely economic effects of natural monopoly, non-economic arguments for and against natural monopoly have also been advocated. For example, some commentators have argue that smallness and disparity of firms should be protected, based

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119 Knight, * supra*, note 11. For an extended discussion on the effects of size on dynamic efficiency see section 1.5 below.
120 Unless, of course, its profits under a competitive market structure are higher than its profits in a monopoly market structure, due to the significantly lower costs of production when utilizing the new technology.
on goals such as the distribution of opportunities, the dispersal of economic power, and extended product selection. If the natural monopoly firm is large relative to other firms operating in the market, it may also suffer from the costs of bigness surveyed above. On the other hand, some non-economic benefits accrue from the fact that there is only one set of production or distribution equipment in a given industry, instead of parallel sets. This is especially true where the duplication of equipment is disturbing in an environmental, visual, or physical sense and may even cause adverse economic impact for other industries.\(^{121}\)

Turning again to conduct, natural monopolies have incentives to create artificial barriers to entry into their markets in order to reduce the risks of competition for the market, that is, their replacement by a more efficient natural monopolist. They also have incentives to impede entry into their domain once they lose their “naturalness”.\(^{122}\)

In addition, if the natural monopolist is vertically integrated to some competitors in competitive segments of its industry or in another industry, it has economic incentives to exploit opportunities resulting from its market power, in particular, to use its power and profits from the natural monopoly segments to extend this monopoly power to, and to exploit it in, the competitive segments. The monopolist might impede competition in the competitive segment either by cross-subsidizing its competitive segments, or by giving these segments benefits over potential rivals. The first practice relates to a situation where the monopolist uses profits earned from its monopoly markets to fund a policy of predatory pricing in the competitive markets. By setting low prices it can impose losses on its competitors and perhaps induce them to exit the industry. The integrated firm has the monopoly market as a source of revenue to fund such activities. The second conduct relates to a situation where the monopolist gives its competitors lower quality or higher priced services. If the natural monopoly segments are “bottleneck” or essential facilities,


\(^{122}\) Foster suggests that predation is the most important economic offense in the case of natural monopoly, since it deters entry or forces out entrants before they are established. However, it seems that his analysis is based on the fact that entry will occur when the natural monopoly ceases to be one, thus enabling economic entry into the market. Foster, *supra*, note 10, p. 163-167.
i.e. their access is essential for competing in the industry, where the control over the natural monopoly segment is in the hands of one of the competitors it has the ability to restrict access by potential rivals in the competitive segments of the industry by using either pricing tactics or non-price discrimination. The same can be achieved by tying: refusing to provide its goods or services to consumers unless they also buy the competitive product from its affiliated competitive arm(s) or exclusive dealing, where the natural monopolist deals only or mainly with one or a number of firms (usually its affiliated competitive arm) and refuses to deal with their competitors.

The economic incentives for such actions involve driving-out a competitor, with a view to recouping all lost revenues of the natural monopoly segment by charging high costs after the rival's exit from the market (predatory actions in their broad sense). However, predatory conduct is a contested notion in economics. Some economists argue that it is almost never profitable, and a predator can rarely recoup his losses resulting from pricing below cost.\(^\text{123}\) Nonetheless, even these economists agree that predation can be profitable if the monopolist is prevented in some way (e.g. regulation) from extracting monopoly profits from its natural monopoly facilities. In that case, it can extract supra-competitive profits by creating a competitive advantage for its competitive facilities and driving its rivals out of the market.\(^\text{124}\) If a vertically integrated monopolist's prices (but not its quantities) are restricted, and it is unable to charge different prices from different customers, it also might restrict output to increase its profits. Thus, the contestability that free entry provides will not be sufficient so far as an incumbent firm can prevent it from working through anti-competitive behavior.

In addition, even a non-integrated monopolist that is prevented from exploiting his monopoly power has incentives to cooperate with competitors in the competitive segments of its industry or competitors in industries in which its output is necessary in order to compete. The natural monopolist and some competitors may restrict competition by creating vertical restraints. These may include exclusive dealing, tying, or conferring

\(^\text{123}\) This view was adopted by some U.S. courts. See, for example, *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.* (1986) 475 U.S. 574, 589.

\(^\text{124}\) For an overview see Viscusi *et al.*, supra, note 25, chapter 8.
benefits on some competitors. Vertical restraints might have overall anti-competitive effects. The result of such restrictions may be the foreclosure of some, or all, the industry to competition. Tying or exclusive dealing in this industry structure might be analogous to a situation where one firm buys all the firms down the vertical chain. The reduced number of suppliers permits the remaining input suppliers to behave monopolistically. Thus it may permit an extension of that market power to the other level. A price squeeze is an example or it may facilitate collusion in an already highly concentrated industry, by making it easier to monitor prices.  

1.3.2 Dominant Firm Conduct and Performance

The small size of the market may also increase the prominence of single-firm dominance. Dominance can be created by one of several factors. First, the dominant firm may have a superior product in a market where each firm produces a differentiated product. Second, the dominant firm may enjoy a technological or a managerial advantage over its rivals. To illustrate, scale economies may be large enough to support one large firm that, although it does not capture the whole market demand, nevertheless supplies a large portion of it. Fringe firms produce highly differentiated products that allow them to overcome their cost disadvantages. Third, a dominant position in the market can be a result of entry barriers. For example, where production inputs, distribution channels or capital markets are limited, dominant firms that control the necessary intermediate goods may more easily emerge. The small size of a market increases the prevalence of the two latter conditions. Small market size, by increasing the height of entry barriers into many industries, also reduces the self-correcting power of market forces to erode dominance not based on productive efficiency.

As to the conduct of dominant firms, in addition to monopoly pricing and market foreclosure, dominance creates incentives and opportunities for the anti-competitive use

126 Single-firm dominance will be defined in Chapter 4.1 below. For the purposes of this chapter, we it is defined as a firm with sufficient market power to raise price above the competitive level without losing so many sales so rapidly that the price increase is unprofitable and must be rescinded
of market power by the erection of artificial barriers to entry which prevent more efficient firms from entering the market or prevent the expansion of existing firms in the market. Such exclusionary market power increases the costs of production or distribution of alternative widgets which, in turn, leads such producers to shrink their output, and enables the monopolist to raise its own price. The monopolist’s total profits will rise while consumers lose the ability to buy at lower prices. Consequently, consumer welfare and efficiency are reduced. The efficiency loss involves both the deadweight loss in consumer surplus from the output reduction and the loss in production efficiency, i.e. the increased costs of producing the remaining output.

Dominant firms suffer from all the costs of natural monopoly: monopoly pricing, x-in inefficiency, limited product selection, and impediments to innovation. In addition, monopoly creates costs of rent-seeking behavior, i.e. the wasteful expenses (money and effort) incurred to secure or maintain a monopoly position. While rent-seeking behavior certainly wastes some of the monopoly profits, no general conclusion can be made about what fraction of the monopoly profits should be counted as a welfare loss. At the limit case the social loss from rent seeking behavior is equal to the total expected monopoly profits. Yet it may well be that firms will have to spend much less than the expected monopoly rent in order to obtain a monopoly position in a market.

127 This exercise of anti-competitive market power, which restricts rival’s output, was termed by Krattenmaker, Lande and Salop exclusionary, or Bainian Power, as distinguished from classical or “Stiglerian Power” which signifies economic power exercised by restraining one’s own output. Thomas G. Krattenmaker, Robert H. Lande and Steven C. Salop, “Monopoly Power and Market Power in Antitrust Law” (1987) 76 Georgetown Law Review 241, at p. 265.

128 A study conducted on the Israeli economy compared the profitability of monopolies (which were defined as firm that possess at least 50% market share) with the average profitability in manufacturing industries during 1968 and 1970. The findings indicate that in 1968 the 25 surveyed monopolies enjoyed 23.3 % of profitability as a percentage of sales, while the average was 6.3%. In 1970 the 48 surveyed monopolies enjoyed 12.7% profitability as percentage of sales, and 18.2% of return on assets, while the average in the manufacture industry 7.2 % and 12.4% respectively. The conclusion from these findings is straightforward: monopolies enjoy a significantly higher profitability than the average profitability in Israeli manufacturing industries. The findings also indicated that between the years 1968 and 1970 the profitability of monopolies, as a percentage of their sales, declined in about 50%. The reason for this decline in profitability was the result of governmental regulation of prices. Since 1970, concentrated industries’ prices were closely regulated. This had the unavoidable effect of the erosion of the regulated firms’ profitability. Schefer, supra, note 60.

Also, not all expenses are necessarily socially wasteful. The prospect of receiving monopoly profits may motivate firms to develop new products, improve existing products, or find lower cost methods in manufacturing.\textsuperscript{130} In addition, a dominant position not based on economic efficiency undermines productive efficiency by encouraging the waste of resources in diseconomies of scale. Finally, dominance in business may also suffer from all the non-economic drawbacks of natural monopoly and those created by large business enterprises.

The welfare harms of monopoly may be mitigated by several benefits. First, as will be elaborated in section 1.5 below, monopoly may be a necessary condition for a significant amount of research and development. Second, as noted above, big, strong enterprises may be better suited to meet international competition.

1.3.3 Oligopoly Conduct and Performance

As observed above, many industries in small economies are highly concentrated under an oligopolistic structure: a few firms produce a high proportion of the industry’s output. Oligopoly structure, in turn, serves as another significant explanation of inefficient levels of capacity as well as of high prices in an industry, since oligopolistic markets are more prone to engage in collusive conduct than competitive markets. Economic theory suggests that the vigor of competition is related positively \textit{inter alia} to the number of firms in the relevant industry, their relevant sizes, and the height of barriers to entry into the industry, other things being equal.\textsuperscript{131} The first important dimension of oligopoly, the degree of industrial concentration, affects the ease with which firms may enter into various forms of collusive agreements or cooperative behavior and thus avoid normal competitive pressures on price and non-price rivalry. The second main dimension, the height of barriers to entry, determines the ease of entry into the market, and thus the competitive threat of new entry. Simply put, the lower the number of firms operating in a market, and the higher the barriers to entry, the greater the influence of each firm on the market.

\textsuperscript{130} Jean Tirole, \textit{supra}, note 13.
\textsuperscript{131} Scherer and Ross, \textit{supra}, note 6, p. 71.
equilibrium, ceteris paribus. Firms recognize that their decisions are interdependent and seek to act on that realization. Pricing, output and other strategic decisions of one firm are made with a view to their impact on all other firms in the market.

Accordingly, profit maximization in an oligopolistic market often requires unaggressive competitive behavior with respect to strategic decisions such as price and the introduction of new capacity. Profits will be higher when cooperative policies are pursued than when each firm aggressively seeks a larger market share through price competition. Cooperative policies do not necessarily imply explicit collusion: They may merely reflect a recognition that a price cut by one firm will be quickly matched by competitors and will not lead to a significantly greater sales volume in the long run, and that in a price war total sales revenue for the industry may actually fall. As a result, firms in an oligopolistic industry will exhibit a tendency to maximize collective profits, will approximate the pricing behavior associated with pure monopoly, and will compete primarily on a non-price basis once a “stable” price level has been reached. In addition, oligopolies can engage in collusive conduct to create artificial barriers to entry into their markets.

However, the link between conduct and structure in oligopolistic markets is not determinate. There are several possible equilibria. A wide variety of price-output combinations may exist in oligopolistic industries, ranging from almost competitive prices to monopolistic prices.\(^{132}\) At one extreme, firms may desire and be able to collude--explicitly or tacitly--to set near-monopoly prices and reap near-monopoly profits. At the other extreme, they may engage in cutthroat competition that drives prices and profits in the short run even below those that would prevail in a perfectly competitive industry. The end of the spectrum nearest to which an oligopolistic industry operates depends on the market conditions which determine the ease of coordination among firms, and the enforcement of competition laws. These conditions include, inter alia, apart from industrial concentration levels and entry barriers, the nature of the production and marketing of the product (the number of close substitute products, the stage in the product

\(^{132}\) Ibid, p. 199.
life cycle, similar cost structures among firms, etc.), technology and the rate at which it is changing, the growth in demand, as well as the competitive temperament of dominant firms in the industry. For example, cooperation is more likely to occur when the offerings of rival sellers are sufficiently alike in significant physical and subjective aspects that they are considered by consumers as virtually perfect substitutes. Salt, sugar and light bulbs are examples of such products. With perfect homogeneity, price becomes the most important area in which rivalry can take place, and oligopolists can coordinate their behavior more easily and find it highly desirable to do so to avoid price wars. When rivalry becomes multi-dimensional, or when there is uncertainty in the market, coordination problems become more complex. To ensure any kind of industry stability and joint profit maximization, firms must make parallel decisions not only on price but on all major aspects of a transaction which are an integral part of the sale (such as style, service and other components of the output package), and this is often complex and difficult.\(^\text{133}\) However, there still are considerable parallel behavior opportunities in which these determinants are matched by the major producers. The ability to collude is also determined by the competition policy towards such behavior and the vigor with which it is enforced.

Although oligopolists in a small market are no exception to the numerous collusive strategies available, there are some features of small markets that influence the tendencies and probabilities of different equilibria outcomes. The small market size can aggravate propensities toward investment in inefficiently small plants and strategic pricing. For example, economies of scale—which determine both seller concentration and the height of natural barriers to entry—are more significant in a small market than in a large one. The smaller the market and the larger the MES of production, the larger the impact of each participant's moves on aggregate equilibrium, \textit{ceteris paribus}. Accordingly, the higher the incentives to collusion—either tacit or express—and the easier it is for firms to collude in order to lower output and increase price. Also, additional entry barriers may be higher in small economies. Supply constraints on factors of production

\(^{133}\) Economic theory suggests several ways of achieving such coordination, such as price leadership and conscious parallelism. See, for example, RCCC, \textit{supra}, note 6, p. 79-90.
may reduce the risk of entry of a new competitor into a cooperative oligopolistic market. The small size of an economy may also facilitate collusion if the economy is characterized by homogenous culture and customs, as similarity limits the variety of competitive ventures that must be coordinated. In addition, if we accept the view that the dynamic forces of variety and change tend to be weaker in small economies than in large ones, collusion is strengthened by such trends. Existing enterprises can flourish with much less fear of entry of a new competitor utilizing new and more efficient technologies.

Where collusion among oligopolists involves conduct that merely takes into account the probable reaction of other firms in the industry to a certain strategy, or whether it involves explicit collusive agreements to engage in monopoly-like pricing and output strategies or in exclusionary strategies, it always involves supra-competitive pricing and limited output. For competitive pricing to prevail, an important condition under the Cournot model is that all firms must be price takers. This condition is not met where firms recognize their interdependence. Thus, even if firms simply take into account their effect on market price in their pricing and output decisions, competitive pricing will not result. Oligopolies may also create some of the additional costs of monopoly, such as reduced rates of innovation and change, limited product selection, and x-inefficiency, albeit usually at lower levels than a natural monopoly or a dominant firm secured by entry barriers create.

Of course, collusive behavior does not necessarily justify production below the optimal production level. Firms do not seek to raise their own costs since cost savings would not necessarily be passed on to consumers as long as price collusion exists. However, the relatively large size of production MES, combined with lower levels of output, may blunt incentives to adopt efficiency-enhancing measures and create, in many situations, output levels which are below optimal production levels. In other words, sub-optimal levels of production can also be explained by the existence of monopoly pricing power in markets so small or so fragmented that marginal revenue falls into equality with long-run marginal cost at an output below the optimal production level.\[^{134}\] The smaller the

\[^{134}\] Scherer et al., supra, note 5, p. 21.
market, the more likely it is that the low collusive level of output per firm will be below the MES of production. Firms will operate at such sub-optimal levels as long as the profits involved in such operation are higher than the additional cost involved in operating at such level.

In a large market, on the other hand, where many market participants influence the equilibrium, the problem of operation at sub-optimal scale does not usually exist. In most industries, output at MES of production has no significant effect on the aggregate equilibrium. The efficient unit minimizes costs and does not depress price appreciably, so that all capacity installed is usually of efficient size. Thus, even if collusion causes output of each oligopolist to drop, it usually does not drop below MES. Accordingly, in a large market it can be assumed that capacity correlating with the low collusive levels of output is nevertheless above MES of production.

Due to the importance of market behavior in a small market, a more thorough analysis is justified. Thus, the next sections will focus on the effect of the interdependence between firms in a small market on the market equilibrium through additions of new capacity to existing firms and the entry of new firms into the industry as well as on pricing decisions, which, in turn, affect market structure and productivity. It should be noted that the economic literature on the relationship between oligopolistic market structures and economic performance is highly diversified and context-oriented, and has not succeeded in yielding a single economic theory of oligopoly. Nonetheless, under certain market structure assumptions, firms are likely to behave in predictable fashions.

A. Capacity and Pricing Decisions of Incumbent Firms when Barriers to Entry are High

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135 For example, Bain found that only in two U.S. industries MES exceeded 10% of the market. In most industries it was way below 5% of the size of the market. Bain, supra, note 5.

136 The next four sub-sections draw, mainly, from David Gilo, "Antitrust Policy in Small Economies," (L.L.M. Paper, Harvard Law School, 1994) p. 17-33; Eastman and Stykolt, supra, note 65, p. 18-21; Scherer and Ross, supra, note 6, chapters 6-8 and 10.
A firm in an oligopolistic market where barriers to entry are high such that oligopolists are not concerned about future entry of new firms or expansion of fringe firms, which faces a decision whether to install additional capacity to its existing plant/s, faces a choice which depends on its estimates of the effect of additional capacity on the price of the product and on its estimates of the effect of such additional capacity on its production costs. These latter costs include the costs of construction and maintenance of additional capacity as well as the costs of possessing additional capacity in the time expected to elapse before the additional capacity can be fully utilized due to demand levels in the market. Three main situations are distinguishable. First, the firm is already producing at MES and additional capacity will still allow it to exhaust economies of scale. Second, the firm is currently producing at below MES levels, but the additional capacity is not large enough to allow production at optimal levels. Third, the firm is currently producing at below MES levels and additional capacity will allow it to produce at optimal production levels. While in the first two cases additional capacity might not affect significantly production efficiency--although much depends on the slope of the long-run average production cost curve--the third situation does have such effect, and thus is more relevant to our analysis. The productive efficiency factor is then balanced against the firm’s estimates of the additional costs of adding capacity of different sizes, since a firm in a tight oligopolistic industry cannot construct large additional capacity without infringing on the market share of its competitors and precipitating a price-war or other forms of retaliation. If the firm believes that the introduction of additional capacity needed to achieve scale economies might lead to lower prices, it will usually operate with as low costs as possible a plant too small to exhaust economies of scale. As part of their recognition of their interdependence with competitors, oligopolists may thus collectively accept market shares that do not justify construction of MES plants for any firm in the industry. Firms might even construct smaller plants with technology that minimizes unit costs given the low collusive level of output. Such behavior may also be seen as a commitment device that facilitates cooperation among oligopolists.137 The strategy of maintaining excess capacity, but

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137 Scherer and Ross, supra, note 6, p. 212; Gilo, *ibid*, p. 7.
producing at sub-optimal scales, can serve the same purpose.\textsuperscript{138} Small markets may thus simultaneously foster oligopolistic behavior, deter firms from growing to more efficient size, discourage firms from adopting cost-reducing measures, and maintain high prices in the industry. The stability of such oligopoly is likely to be very great because of the difficulty of introducing efficient capacity by either existing or new firms. Thus, where economies of scale are great and firms are reluctant to add capacity, established firms may make permanently high profits by setting prices just below the high entry-inducing level, which may also be below optimal levels of production scales.

Operation at sub-optimal levels is also influenced by dynamic factors, such as growth of demand in the market. The more rapid the expansion of demand for an industry's output, the shorter will be the duration of depressed prices caused by the addition of capacity to that industry. Scherer et al. support this conclusion with the following example: Suppose that overall market demand growth creates room for one new MES plant every two years and the market is supplied by four evenly matched firms. Ideally, each firm ought to build a new plant every eight years on a two-year rotation. But the coordination required to implement such phasing can be prohibited by the competition authorities, and even when formal cooperation is permitted, oligopolistic rivals may be unwilling to wait long intervals for increments of growth, nor do they trust one another in matters of such strategic importance to forego a share of current growth in the expectation that they will have their turn later. Rather, they are apt to expand more or less continuously to maintain their accustomed market shares. Each then faces a trade-off between carrying excess capacity for a protracted period or sacrificing scale economies and price cutting (with retaliation probable). As this dynamic investment analysis shows, the excess capacity-scale economy tradeoff is more likely to be resolved in favor of sub-MES plants or plant addition, the smaller is the absolute demand growth increment accruing to a firm in any given time period. The size of that increment, in turn, depends multiplicatively upon the absolute size of the market, the rate of demand growth and each firm's share of the market. These considerations lead to the expectation that average plant

\textsuperscript{138} Scherer et al., supra, note 5, p. 245; Gilo, ibid.
size will be larger, the larger the market is in relation to the MES, the more rapidly demand is growing and the higher seller concentration is. However, the concentration relationship may break down if sellers are prone to ignore their interdependence and struggle through price competition to build and absorb the output of large plants. Thus, it is expected that industries which grow rapidly possess capacity that is less inefficient than other industries with the same market size in relation to productive units of the smallest efficient size.

It should be noted that firms may expand in a market in one other way: through merger. In many cases where the market is oligopolistic, market participants will prefer merger to internal growth, since it does not affect aggregate output and thus is not deterred by detrimental effects on price. In addition, merger allows for an almost immediate realization of advantages related to expansion. Such merger might allow the merging firms to realize economies of scale in production.

B. Capacity and Pricing Decisions of Incumbents when Entry Barriers are Low
If entry barriers are low, another factor is added into the equation: the fear that high prices and below-optimal capacity levels will attract new entry or additions of capacity by rivals. Thus, oligopolists will tend to build efficient scale plants and keep their prices at a level that takes into account the threat of potential competition from new entrants, which will usually be close to the minimum long-run average costs of firms of optimum size.

C. Entry Decisions of New Firms when Entry Barriers are High
The entry decisions of new firms into an industry are similar, in many respects, to capacity addition decisions by incumbent firms. The possibility of entry of new firms into an industry, as well as the levels of capacity introduced by such entry, are determined, inter alia, by the effect of such entry on the existing price equilibrium in the industry as well as the height and nature of barriers to entry into the industry. All else equal, markets served by a monopolist or a tight-knit oligopolistic group anxious to maintain high prices

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139 Scherer et al., supra, note 5, p. 35-40 and 92.
are more apt to attract large-scale entry than those with loosely disciplined oligopolists. However, a large effect on price may deter large scale entry.

If high barriers to entry exist and incumbent firms have cost advantages over potential entrants, market structure will tend to be stable and considerable entry deterred. These cost advantages may be a result of scale economies, of innovations, of learning by doing economies that they have acquired as pioneers in the industry or of high barriers to entry erected by incumbent firms such as control over resources or distribution channels, and product differentiation, etc. For example, if production MES is large relative to the demand in the industry, and if the cost-penalties for operating below MES are substantial, a new firm would have to enter the market at such large scale that the combined output could be sold only at substantially reduced prices, perhaps even below cost. Where there are economies of firm size encompassing broader organizational economies this may act as a barrier to entry at the broader enterprise level. The few incumbent firms that enjoy such comparative advantages may behave like classic oligopolists, limiting entry by setting prices that are high in relation to their own costs but not high enough to cover the costs of a new entrant at below production MES or even of MES. Such oligopolists may make it known that they are willing to drive out new entrants by cutting prices in the short run so that the new entrant will be unable to attain a break-even level of sales.

In some situations, however, it will be profitable for firms to enter the market and for incumbents to accommodate entry. This is the case where the entrant possesses a cost advantage over incumbent firms. Such cost advantages of new entrants may be the mark of new and cost-reducing technologies or firms operating at an efficient level, etc. Operation at sub-optimal scale in a small market, for example, might create a cost disadvantage for incumbents that attracts entry. If the incumbent firms choose to build smaller plants as a commitment to below MES scale of operation in order to maximize their long-run profits although they can operate at efficient levels due to demand levels in

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140 Scherer and Ross, supra, note 6, p. 372.
141 Gilb, supra, note 134.
142 RCCC, supra, note 6, p. 212.
by cutting prices in the short run so that the new entrant will be unable to attain a break-even level of sales.\footnote{RCCC, \textit{supra}, note 6, p. 212.}

In some situations, however, it will be profitable for firms to enter the market and for incumbents to accommodate entry. This is the case where the entrant possesses a cost advantage over incumbent firms. Such cost advantages of new entrants may be the mark of new and cost-reducing technologies or firms operating at an efficient level, etc. Operation at sub-optimal scale in a small market, for example, might create a cost disadvantage for incumbents that attracts entry. If the incumbent firms choose to build smaller plants as a commitment to below MES scale of operation in order to maximize their long-run profits although they can operate at efficient levels due to demand levels in the market, this makes them more vulnerable to efficient scale entry. However, operation at sub-optimal level will usually induce an incumbent firm which suspects entry to build MES plants, even though it might operate them below MES and thus deter entry. If, however, the market is very small and cannot accommodate even a single MES plant, operation of incumbents at suboptimal scales is virtually inevitable. In this situation, large firms may possess firm-scale economies which may offset some of the plant-size diseconomies and thus possess a cost advantage over incumbents and sub-optimal levels of production will not deter entry. In such situations strategies of over-investing in capacity so as to deter entry of efficient scale would be too costly for the incumbents.\footnote{Scherer et al., \textit{supra}, note 5, p. 151; Scherer and Ross, \textit{supra}, note 6, p. 394.}

Accordingly, incumbents will choose, from the start, to construct plants of a capacity that does not deter entry, and the entrant with the cost advantage will not be deterred from entry. The new entrant might also acquire existing plants, and thus not increase aggregate output. In such situation, the market price may not change,\footnote{Although the it might affect the market price equilibrium. See footnote 123 below.} but the new entrant’s profits will be higher than those of incumbent firms, given that he enjoys some cost advantages over his rivals.

In addition to problems of large scale entry of new firms, fringe entry at sub-optimal scale may also occur. This may cause efficiency problems that are more severe in
a small market than in a large one, *ceteris paribus*, since it might cause a large portion of the industry to operate below MES. As Gilo observes, fringe entry in a small market usually causes the market to be over-crowded with firms operating at sub-optimal scale, usually with differentiated products. Such a market structure is usually undesirable. If, however, MES is not significant, fringe entry might eventually break the oligopoly due to loss of control over output and prices.

Usually a firm that is contemplating fringe entry will anticipate that its addition to aggregate output will not have a significant effect on the market price. The smaller the market, the smaller such entry has to be in order to have insignificant effect, other things being equal. If price reactions will not deter such entry, other entry barriers may have such effect. For example, the higher the cost penalties that will be incurred by operation below MES, the larger the cost disadvantage these fringe firms will have and the less likely such entry is. These cost penalties can be compensated, however, by some pricing strategies which tend to create market niches luring small scale entrants. Opportunities for physical differentiation of products have the same effect: new entrants often seek special product line segments, especially those inadequately served by existing sellers, in which they can sustain price premia compensating for the cost penalties of small scale operation. All things being equal, in small economies fringe entry of domestic firms is not profitable in more industries than in a large economy, due to the ratio of MES to the aggregate market demand and their effect on market prices. However, if most or all incumbent firms operate at below MES levels and diseconomies of scale are large, then fringe entry is more likely.

Firms with cost advantages might also enter the market through fringe entry. In such situations, the incumbent firms will maximize their long run profits by setting prices that induce entry and have declining market shares. The entrants will continue entering with small scales as long as more than normal profits are anticipated. Yet gradual expansion of capacity by a fringe firm involves a considerable cost disadvantage where economies of scale exist, which may lower the profitability of expansion. Thus the entrant

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146 Scherer and Ross, *supra*, note 6, p. 394. Assuming, of course, that the firms operate only in the domestic market and are not part of a multinational corporation.
147 Scherer and Ross, *supra*, note 6, p. 366.
can initially invest in optimal sized plant and gradually increase output. Such strategy signals to incumbents that the entrant actually contemplates large scale entry, which might cause price retaliation. However, as long as low levels of output are produced in the plant, major effects on aggregate price are avoided. In the face of considerable fringe entry of more efficient firms, incumbents might find it profit maximizing to reduce output levels in order to soften the detrimental effect that aggregate fringe entry has on price. The smaller the market and the more important these scale economies, the more likely the decrease in output is to cause these firms to operate below MES of production. If many fringe firms operate below production MES the market will be overcrowded with firms which operate below such MES. Assuming scale economies are important, it would be desirable to break out of such a market structure and to reach a market structure of fewer firms, all operating at optimal scales of production.148

D. Entry of New Firms when Barriers to Entry are Low

If entry barriers are not high but potential large scale entrants anticipate that incumbents will maintain their levels of output upon entry, large-scale entry might be deterred due to the effect it will have on market price, since price may then fall even below the entrant’s costs. As observed above, the effect on price will be stronger, the smaller the market and the larger the additional capacity, due to the larger effect of additional capacity on the aggregate output.149 Since a significant portion of the incumbents’ costs are usually sunk, they therefore have strong incentives to engage in a price war in order to deter entry. Such a price war could also sink the costs new entrants invested in new plants. Furthermore, if incumbents have constructed large plants which are not yet wholly in use— as commitment devices used in order to signal their intentions to the other market participants, or in order to preserve traditional market shares as demand grows—their costs might drop since their marginal costs of production are lower.150 This may effectively

149 Scherer and Ross, supra, note 6, p. 378.
150 Scherer et al., supra, note 5, p. 380-4.
deter entry on a large scale. Fringe entry decisions are likely to be similar to those surveyed in the previous section.

Collusive behavior can also occur between concerns. When large, diversified concerns approach one another as competitors, their substantial resources and varied experience enables each enterprise to enter new lines of activity more readily than could a newly established or highly specialized firm. When such large diversified enterprises are few, they have an incentive to collude and allocate fields of business activity so as to minimize their competition with one another. In general, if there are many diversified enterprises the incentive to compete is substantial and the opportunity to work out satisfactory terms is slight; whereas if there are a few diversified enterprises competition is less attractive and collusion is easier. In a small economy, unless enterprises are international, there is room for fewer large diversified enterprises than in a large one. Hence, unless foreign trade is as easy as domestic trade, the competitive aspects of diversification of collusive conduct of enterprises are likely to be less important in small economies and the allocative aspects more important.\footnote{Edwards, \textit{supra}, note 39, at p. 124-5.}

Collusion between international enterprises may also have important negative effects on a small economy. Such collusion usually leads to territorial market allocations. Economies in which there is only one producing enterprise are likely to be allocated to that enterprise, and thereafter entry from other cartel members is not expected and the appearance of domestic competition is less probable than before. Economies in which there is no significant domestic production will be allocated as export markets to one cartel member, based upon the historical interests and current bargaining power of the cartel members. Economies with several domestic producers may experience the gentle and decorous competition that takes place among cartel members, and the cartel will more likely be less effective. Given that small economies will usually fall under the first two types of markets, small economies are more vulnerable than large ones to
monopolistic developments at home that are part of international programs of cartelization.152

In sum, firms’ behavior is strongly influenced by the many elements that determine the structure of the industry, as well as other variables such as managerial boldness and skill in making credible threats to new entrants, the ability of new entrants to build up demand in advance, and the ability of established sellers to keep pace with growing demand.153 All else equal, as industries become more concentrated, the behavior of firms changes as they become more aware of the competitive reaction of other firms in their industry to their output and price decisions, and it becomes easier for firms to coordinate these decisions among themselves. As Eastman and Stykolt long ago pointed out, the choice between higher cost and lower price is an impediment to the installation of new capacity and to new entry that does not exist where the market is very large in relation to the additional output of an efficient unit of production. The larger the market, the fewer the impediments to added capacity and to lower costs. Where the market is so large that new capacity of efficient size has little effect on price, no impediments to capacity exists. At smaller market sizes, entry at efficient scale depresses the price and thus provides an inducement to enter at a smaller than the most efficient size and to incur higher than minimal costs. The result of interdependence of plants in many industries in a small market is that both established and new firms add units of inefficient size to the industry’s capacity as conditions warrant. Price-cost margins and industry profits are likely to be raised above the competitive level as the industry becomes more concentrated.154

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152 Ibid.
153 Scherer et al., supra, note 5, p. 152.
154 The Market concentration-high profit relationship was first provided in Prof. Joe Bain’s work. Bain found that profit rates were higher for industries in which the largest eight firms accounted for at least 70% of industry value added. Joe Bain, “Relation of Profit-Rate Industry Concentration: American Manufacturing, 1936-1940,” 65 Q.J. Econ. 293 (1951). Most later studies confirmed this finding. John Kwoka, for example, found evidence suggesting that market power is manifested mostly in the market shares of the leading two firms, having as much as 35%, with larger market shares for the third firm acting to discipline the leaders’ exploitation of their market power. J. Kwoka, “The Effect of Market Share Distribution on Industry Performance” (1979) Rev. Econ. and Stst. 101, 107. Weiss has found that non-competitive pricing is likely to appear when the four leading firms account for 50 to 80 percent of the market. L. Weiss, “The Concentration-Profits Relationship and Antitrust,” in Goldschmid et al., (ed.)
Although the effect on the structure of an industry of the impediment to entry of new capacity provided by the small size of the market cannot be predicted unambiguously, because it depends on other factors such as the degree to which the oligopolists collude and on the goal that the industry sets itself in terms of its time horizon for profit maximization, it nonetheless has an important influence on the structure, behavior and efficiency of many small markets. The essential difference among firms in monopolistic, oligopolistic and competitive markets is the discretion and incentives they have to behave anti-competitively.

Given the above analysis, an important question is whether if concentration is permitted or encouraged to increase, will increases in the realization of plant scale economies follow. The answer depends on all the above surveyed factors: height of barriers to entry, seller concentration, competition policy and the ability and desire of sellers to collude. If sellers are willing to invest in scale economies, investing in large plants or plant expansions and competing vigorously on the price dimension among others to absorb the attendant output increments, high seller concentration is an essential precondition of such a market structure. If, on the other hand, sellers accept accustomed market shares and avoid expansionary moves which upset the status-quo but defend their traditional shares by expanding in pace with demand growth, dynamics will exist under which high concentration encourages the achievement of scale economies while fragmentation discourages it. Given a tight oligopolistic structure, large capacity expansions are more apt to be undertaken in relatively large markets than in small.

1.4 Consequence: High Levels of Foreign Ownership

Demsetz finds higher profits not for all the firms in a concentrated market but only for those with the highest market shares. This implies, he argues, that they are simply earning the rewards of higher efficiency. Harold Demsetz, “Two Systems of Belief About Monopoly,” in Goldschmid, ibid, at p. 164. However, it may still be debated whether the failure of the more efficient firms to expand and thus drive prices down towards more competitive levels is not itself an indication of non-competitiveness. Also, it might be that the smaller firms are not less efficient, or even if they are less efficient their lower profits are also supra-competitive.

Eastman and Stykolt, supra, note 65, p. 18-21.
It might be expected that control of an industry will naturally accrue to residents, due to the special advantages enjoyed by local businessmen such as familiarity with law and custom and local business ties. However, as studies have shown, many small markets exhibit a phenomenon of higher degrees of foreign control than do larger markets. This signifies that in such markets foreign ownership and control is based on the presence of some comparative advantage that foreign firms possess over local entrepreneurs, sufficiently important to compensate for the natural business advantages of residents.

First, the larger the firm scale, the less likely is it that a small firm reaches the low point on the firm’s long-run average cost curve and the more likely that larger firm-scale operation is necessary to achieve available economies of firm scale. Such economies include, *inter alia*, capital market economies, R&D economies, and marketing economies. It follows that the relative attractiveness of entering a small market with large firm-scale MES would be greater for a large firm than for a small one. Affiliation with foreign firms may help to overcome the disadvantage created by sub-optimal scale plants by exhausting economies of firm scale. Second, the barrier to additions of capacity formed by controls over techniques of production is likely to be higher for independent producers than for affiliates of foreign firms, because the latter are the principal holders of patents owing to earlier technological development and economies of scale in R&D. Foreign owners of patents are more likely to make them available to their own affiliates than to licensed independents. This is sometimes induced by the necessity of foreign

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157 For example, a study regarding the total assets and revenues of foreign-controlled corporations in Canada for 1988, indicates that foreign-controlled assets accounted for almost 19 percent of total assets while foreign-controlled revenues accounted for around 25 percent of total revenues. Statistics Canada *Corporations an Labor Unions Returns Act, Part I: Corporations*, Report for 1988, Cat. No. 61-210 (Ottawa: Minister of Supply and Services Canada, 1991) p. 20. See also West, *supra*, note 56, p. 12-5 and studies cited there.
159 Marketing advantages can be exploited if tastes of consumers in the two jurisdictions are alike. For example, subsidiaries or affiliates of U.S. firms may have an advantage over independent firms because of the considerable exposure of Canadian consumers to American advertising expenditures. The cultural similarity is sufficient to permit the successful extension of American advertisements to Canada, which requires little or no adaptation, which, in turn, implies that the marginal costs of additional advertising are low.
corporations to establish affiliates in some countries in order to safeguard their patent rights. Other incentives for establishing foreign subsidiaries include tax incentives, etc. Some of these cost advantages can also be exploited by import of foreign firms into the small market instead of establishing subsidiaries in the small market. Yet foreign import is sometimes blocked by high tariffs and other forms of trade protection. High levels of trade protection into many small economies which existed in the past can partially explain the high levels of foreign ownership observed in small economies.

Foreign control can take one of two forms: acquisition of control of existing domestic firms, or the creation of new firms in the domestic market. In the first case, large firms can increase the income earning ability of a small domestic enterprise by incorporating it in a larger complex and giving it access to the advantages of larger firm scale. Such conduct also preserves the typically close interdependence of firms and has the least effect on prices and industry structure. In the second case, on the other hand, the entry of a foreign firm affects the price and output equilibrium of the industry and thus the choice of entry and capacity is determined by the factors surveyed in section 1.3.2 above.

In a domestic market which is closed to foreign trade, foreign control may possess many advantages to the market, assuming, of course, that a monopoly will not be created. First, it allows firms to exploit firm scale economies, and thus to lower their costs. Accordingly, higher levels of productive and allocative efficiency will be achieved. As economic theory suggests, the foreign-controlled firm will have a lower optimal collusive price if its marginal costs are indeed lower than other oligopolists. The local firms will adopt this lower collusive price since otherwise they may lose sales to the foreign firm. While not all these cost advantages will be passed on to consumers, some of them will. Enforcement of antidumping laws might also reduce prices in domestic markets to foreign price levels. Second, foreign control will tend to limit fringe existence. This is especially important in a small market, where fringe entry is smaller and thus diseconomies of low

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160 Eastman and Stykolt, supra, note 65, p. 29.
161 Scherer and Ross, supra, note 6, p. 239.
162 The dominance of a firm(s) with cost advantage in a Forchheimer or Stackelberg leader follower model improves market performance and lowers prices compared with the absence of such a leader. Scherer and Ross, supra, note 6, p. 225; Gil, supra, note 134, p. 36-7.
scale are greater and cost levels are usually higher than in larger markets, *ceteris paribus*. Accordingly, market performance and consumer welfare may improve due to foreign firms' existence. Third, the existence of foreign firms benefits a small market by the accessibility to technology innovations. Since R&D levels in small economies are usually low, and licensing agreements suffer from many imperfections, affiliation with foreign firms might be the only way, or at least the most profitable way, to introduce new innovations into the domestic market. The introduction of new technologies benefits the domestic market in several ways, including, *inter alia,* the introduction of domestic workers to new techniques and technologies, elevating the small country's prospects for its own future innovations, and limiting oligopolistic coordination if it introduces heterogeneity in costs or in products. Finally, it might ease domestic access to export markets due to reciprocity. As will be elaborated in the next chapter, such access improves performance by enlarging the relevant market and by enabling the attainment of economies of scale. While in some industries it may help to sustain the level of concentration by making it more difficult for domestic firms to enter and survive in them and by importing the oligopolistic structure of industries abroad, this is rarely the case.

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164 Canada has one of the lowest rates of research and development expenditure, on per capita basis, of western industrialized nations, and Canadian R & D expenditures are concentrated in the hands of very few large firms. In 1978 over 90% of the patents in force in Canada were held abroad. RCCC, *supra,* note 6, p. 57. Empirical evidence also indicates that Canada's R&D expenditure relative to its gross domestic product was approximately half the ratio of Japan, Germany and the U.S. Statistics Canada, *Industrial Research and Development, 1992 Intentions* (Ottawa, Minister of Industry, Science and Technology, 1992). This research also indicates that in 1990 25 firms accounted for almost half of the R&D performed and that seven industries accounted for 54 percent of the R&D expenditures. See also other studies cited by West, *supra,* note 56, p. 65-9. For an extended discussion of R&D levels in small economies see section 1.5 below.


166 RCCC, *supra,* note 6, chapter 8.

167 Empirical work done by Baldwin and Gorecki suggests that sub-optimal plant scale and excessive product diversity within a plant are not a consequence of foreign ownership, but rather of high tariffs in conjunction with a small domestic market. They also found that foreign ownership does not have a negative effect on relative Canada/U.S. efficiency in the manufacturing sector; rather, if anything, it has a positive effect. John R. Baldwin and Paul K. Gorecki, *The Role of Scale in Canada-U.S. Productivity Differences in the Manufacturing Sector,* 1970-9 (Toronto: University of Toronto Press, 1986).
Despite its apparent and admitted beneficial aspects, foreign ownership is, in many countries, considered to constitute some sort of threat. Arguments against foreign ownership focus on the dependence on capital and technology from abroad which creates an argued ability of foreign-controlled firms to subvert the course of government in the interests of alien powers. It is also argued that foreign ownership reduces demand for the labor services supplied by domestic skilled and professional workers: By importing managers, by using the services of management consulting firms located abroad, by centralizing R&D at head office abroad, and by other measures that increase the efficiency of a foreign firm's total operations, they reduce the demand for business services in the domestic market.\footnote{Eastman and Stykolt, \textit{supra}, note 65, p. 4.} In addition, some of the producer surplus may benefit foreign shareholders and not domestic welfare. While such arguments have some merit, it seems that the benefits of foreign ownership in a small, closed economy may far outweigh its costs.

1.5 Economic Performance of a Small Economy: The Basic Conflict Among Productive, Allocative and Dynamic Efficiency

The size of an economy influences all the aspects of the Structure- Conduct-Performance model. As observed in previous sections, the small scale of the market creates high degrees of seller concentration both on industrial and aggregate levels, and in some situations induces firms to operate below production MES levels. It also raises entry barriers in the market. Industrial concentration, in turn, creates monopolistic structures in which firms price supra-competitively and have incentives to abuse their monopoly power. Alternatively, it creates oligopolistic markets in which firms have incentives to engage in collusive behavior which may lead to high prices as well as to sub-optimal levels of production. All the above factors affect industry performance which involves, \textit{inter alia}, economic efficiency, price, and product quality. In terms of total social welfare, economic efficiency is composed of three elements: allocative efficiency, productive
efficiency, and dynamic efficiency. Allocative efficiency refers to the economy-wide allocation of resources and its impact on particular structures and practices in particular industries. Ideally, the allocation of resources should be an accurate reflection of real, relative resource costs of producing the goods or services in each sector of the economy, and of the relative utility or satisfaction to each consuming unit of the various goods and services which are available. Productive efficiency addresses the question of whether any given level of output is being produced at least cost, or alternatively whether any given quantum of inputs is producing the maximum possible output. Dynamic efficiency focuses on the question of whether appropriate incentives exist to increase productivity and to engage in innovative activity over time that may yield cheaper or better goods for consumers. The small size of the market affects all three types of efficiency.

The biggest impediment to efficiency is created by scale economies, which create a trade-off among all of its three elements. Assuming similar basic conditions such as production technologies and elasticity of consumer demand in all markets, the size of the market limits the number of firms which can operate efficiently in the market. If a given number of firms can operate efficiently in the market, productive efficiency requires that the market contain only this given number of firms, all operating at efficient productive levels. The efficiency of firms depends not only on the size and inner-diversity of their plants in relation to the lowest point on the long-run average cost curve, but also on the number of plants operated by the firm, because of the existence of economies that are external to plants but internal to firms, and also on the location of these firms in the market. The aggregate effect on the average cost curve of all these economies of scale, which imply real cost savings, should be taken into account in determining the number of efficient firms that can operate in the market, even if it means that firms will operate at sub-optimal levels of production due to high transportation costs or other factors which affect productive efficiency. Accordingly, in a small market, producer concentration should be higher than in larger markets since fewer MES plants and firms can be supported by the market due to lower levels of consumer demand.

169 Bruce Dunlop, David McQueen, and Michael J. Trebilcock, Canadian Competition Policy—A Legal and Economic Analysis (Toronto: Canada Law Book Inc., 1987) at 63.
At the same time, productive efficiency imperatives often cause industrial concentration in a small market to be high enough in many manufacturing industries to allow some market power to be realized. Efficiency can be adversely affected by patterns of market behavior to which producers in monopolistic or highly concentrated industries are prone. The evils of monopoly have long been recognized. These include, *inter alia*, monopoly pricing and low output levels, X-inefficiency and the costs of rent seeking behavior. Under an oligopolistic structure, given a small market with high levels of protection from outside competitors (both artificial and natural), domestic producers compete only with each other under conditions of interdependence determined, primarily, by the size of the market (number of MES plants) and entry barriers. The actions of producers impinge directly on each other and as a result collusive behavior is widespread. Collusive behavior has many adverse effects on productivity and resource allocation: prices are likely to be above minimum costs of an efficient plant; it may enable inefficiently small competitors to enter the market beneath the fixed-price umbrella; capacity is allowed to expand in the wrong locations or in increments that are too small to exhaust scale economies; and various other forms of non-price competition that drain resources are encouraged. Under both structures firms also have incentives to engage in exclusionary conduct. The resulting structure leads to higher profits and, in many cases, higher costs. This, in turn, creates adverse effect on inter-industry resource allocation, or *allocative inefficiency*. Results of studies support the hypothesis that increased industrial concentration is associated with greater price-cost and profit margins, all other variables held constant. Even if concentration led to productive efficiency, most cost savings

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170 A study conducted by Caves *et al.* found that in a sample of matched industries in the U.S. and in Canada, the largest four firms hold market shares of 47 percent higher in Canada than in the U.S. Caves *et al.*, *supra*, note 54, p. 370.
172 J.H. Young showed that Canadian prices for final manufactured goods range from about 80 to 150 percent of U.S. prices, though mostly falling in the range from 100 to 120 percent. J.H. Young, *Canadian Commercial Policy*, (Queen’s Printer, 1957) Appendix A. See also West, *supra*, note 56, p. 53-6 and studies cited there. Harry Bloch concluded that, in addition to high concentration, high levels of protection (natural or artificial) were necessary for firms to increase their price-cost margins. Harry Bloch, “Prices, Costs, and Profits in Canadian Manufacturing: The Influence of Tariffs and Concentration,” (1974) 7 *Canadian Journal of Economics* 594.
from improved efficiency would probably not be passed along to consumers either through lower prices or through higher-quality products or improved service.

In addition, market size and structure affects dynamic efficiency which involves research and development expenditures designed to create new products and processes as well as technology transfers. Technological change has long been recognized as an important feature of efficiency: Innovations serve to lower production costs, which, in turn, may serve to enhance allocative efficiency within society by freeing resources for use in other industries, may enhance the quality of the products, and may enhance the competitiveness and comparative advantage of the innovative firm. A misallocation of resources stemming from an oligopoly may be quickly overcome by rapid technological change from innovation. Innovations are mostly important for domestic products not produced abroad (due to differences in tastes, cultural traits, etc.), or which are produced abroad in small quantities, since the only firms which have strong incentives to innovate with regard to these products are domestic firms. However, firms in small markets exhibit extremely low levels of continuous research and development on products and processes.\textsuperscript{173} The cost disadvantage that this low level of R&D imposes on domestically owned firms is often significant.

Many empirical studies have tried to determine the relationships among market structure, firm size and technological change. Some researchers have concluded that large firm size is more conductive to innovative activity than small firm size. The essence of this argument is that market power is necessary to motivate firms to innovate.\textsuperscript{174} On the

\textsuperscript{173} See footnotes 162-3 above.

\textsuperscript{174} This argument, often labeled "the Schumpeterian Argument" (after Joseph A. Schumpeter, \textit{Capitalism, Socialism and Democracy} (New York: Harper and Row, 1950, 3rd ed.)), builds on several factors. First, the costs of innovation are so great that they can only be borne by large firms. The ability to R&D is connected to the ability of large firms to finance research activity due to larger internal cash flows. Moreover, R&D projects are risky, as well as expensive, so that only large firms can afford to maintain a balanced portfolio of R&D. Second, there are obviously some economies of scale in conducting R&D. Third, a large firm would be able to penetrate markets more rapidly with new products, and thus increase the profitability of developing a product. Fourth, because they have larger volumes of sales, large firms might have an advantage in introducing process innovations, since a new process that reduces costs by a given percentage yields greater total savings to companies producing a larger volume. However, the physical indivisibilities in the R&D function do not result in a disadvantage to the small firm if the latter can sell the rights to the innovation to other producers and, in effect, spread its costs over a larger output. The disadvantage to small firms may arise from economies of scale in R&D together with significant costs.
other hand, it is argued that large size can be a disadvantage in facilitating innovation. In a large corporation with a large administrative structure, the decision to proceed with R&D has to filter through a long chain of command, and this is said to increase the chance of an idea being rejected. A related problem involves over-organization of research in large laboratories. Most studies conclude that R&D increases more than proportionally with scale up to a certain size and then decreases as a proportion of sales. Scherer concluded that “[a] little bit of bigness...is good for invention and innovation. But beyond the threshold further bigness adds little or nothing, and it carries the danger of diminishing the effectiveness of inventive and innovative performance.” Yet, the definition of bigness used by Scherer is very large relative to a small market.

However, in a small market bigness implies high levels of industrial concentration. There is a general consensus that concentration aids innovation up to a threshold level, after which there is no further positive relationship. Scherer observes that “technological vigor” increases to the point at which the four-firm concentration ratio reached 50-55%, after which increasing concentration has a depressing effect on innovation. Accordingly, firms in concentrated, oligopolicistic industries with little fear of outside entry do not have strong incentives to innovate. Rather, they may attempt to prolong the life of their fixed

days of transacting in the rights to innovations or in R&D services per se. Finally, there may be indivisibilities in the process of adopting new technology. It may cost the same to adopt one or one hundred new machines. This is a real advantage to the large firm. However, in some cases it can be exploited by small firms through joint arrangements. A study undertaken at the Marketing Science Institute at Harvard using firm-level data reached the conclusion that R&D is more profitable for companies having large rather than small market shares and that the profitability of R&D is higher for large companies. RCCC, supra, note 6, p. 57-60; West, supra, note 56, chapter 3.


176 F.M. Scherer, Industrial Market Structure and Economic Performance, (Boston: Houghton Mifflin Company, 1st ed., 1964). The RCCC concluded that “[t]here seems to be sufficient evidence to suggest that large corporate size does confer advantages in carrying out research and development, as measured by expenditures. However, large corporate size does not seem to be a prerequisite for participation in the innovative process, and the benefits accruing to large firms seem to be confined to the later stages of the process, i.e. investment and development.” RCCC, supra, note 6, p. 57-60.

177 In the year closest to Scherer’s study, Canada had only 40 non-financial corporations with annual sales exceeding $200 million and only 68 exceeded $75 million which were caught by Scherer’s definition of bigness which impedes innovation: “up to sales levels of roughly $75 million to $200 million”. RCCC, supra, note 6, p. 59.

178 Arrow has shown that given enforceable property rights, the incentive to innovate will be smaller under conditions of monopoly than under competitive conditions. Kenneth E. Arrow, “Economic Welfare and the
assets by slowing the rate of adoption of new technology. This strategy will be successful only in a highly coordinated oligopoly with little import competition, in which all competitors openly or tacitly refrain from introducing innovations. Such firms may, however, have incentives to obtain new products and processes through licensing, since it is unlikely to disturb the pricing structure of the industry. Other factors which have proven to positively affect levels of R&D are, inter alia, high degree of foreign ownership brought about by market conditions, high product diversity within firms, and government grants. Small economies may therefore be caught between the necessity of having large firms in order to have successful R&D programs and the fact that large firms imply the existence of concentrated industries.

Thus, the size of the market yields a complex influence on market performance. Given scale economies, high concentration bears an uncertain relationship to relative efficiency because noncompetitive behavior in concentrated industries can impair it, while concentration as a response to a given state of scale economies can improve it. While the same dilemmas may be found in other economies, small market size sharpens the focus on the question of whether an economy would be better off, in general, with higher concentration to permit more efficient scales of activity, or lower concentration for better allocative efficiency through competition.

These conclusions are supported by economic research. It has been found that the smallness of a market, in the sense of a high degree of interdependence between

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Allocation of Resources for Invention," in R.R. Nelson (ed.) The Rate of Direction of Inventive Activity (Princeton: Princeton University Press, 1962). The same logic applies to an oligopolistic situation. Carl Kaysen and Donald F. Turner in Antitrust Policy: An Economic and Legal Analysis (1959) articulate the view that competition is an important, if not essential, condition for technological change in an industry and that market power is detrimental rather than helpful. Competition gives firms an incentive to innovate to defend their market positions through new products and more efficient production. It is a means to achieve at least a temporary respite from unremitting price competition.


180 Williamson, supra, note 172.
producers, is the main source of its inefficiency. As observed above, economic research has established that in practice the smallness of markets does not lead to the establishment of efficient industries, i.e. industries that minimize their costs by producing in plants of optimal scale and thus achieving lowest average costs, given prevailing input prices. Instead, such industries tend to have excessive costs of production wherever the size of the market is small in the sense that the number of plants of efficient size that could have supplied the market are few. The productivity levels of industries tend to be low where scale economies are important and protection (both artificial and natural) is high. The interdependence of firms inhibits the installation of efficient capacity wherever efficient capacity is large in terms of the domestic market available to the suppliers. A commonly found structure for an industry is thus one in which a number of firms, each of suboptimal scale, duplicated each other's outputs. Scherer et al. found that within a given industry the percentage of firms operating at efficient scale increased with the size of the market, industry concentration, the size of cost-penalties for operating below MES, and growth in demand, and decreased with transportation costs. Another study concluded that this percentage increased with export intensity and import competition and decreased with the rate of effective tariff protection (which will be discussed in the next chapter), foreign control and product differentiation. Caves reached similar conclusions.

Yet it is important to bear in mind that the overall level of productivity of an economy is influenced not only by the size of its market but also by other factors such as natural resources or high individual productivity that can compensate for at least some of the penalties of markets inadequate to sustain efficient production. As these factors are not necessarily correlated to the size of a market, this thesis takes them as a given and instead focuses on competition policy that can further enhance these advantages of an economy.

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181 Eastman and Stykolt, supra, note 65, p. 7.
182 Caves et al., supra, note 54.
183 See, for example, Eastman and Stykolt, supra, note 65.
184 Scherer's evidence before the RCCC. See RCCC, supra, note 6, p. 55.
185 RCCC, supra, note 6, p. 55.
186 Caves concluded that relative productivity is affected by the interaction of protection, scale economies, and product differentiation: Australia’s average productivity disadvantage is greatest for industries marked by substantial scale economies, large cost disadvantages of suboptimal scale production, protection (natural or artificial) and extensive structural product differentiation. Caves, supra, note 5, p. 340.
1.6 Conclusion

The small size of an economy places a handicap on its economic performance. The small number of competitors in many domestic activities means that competition is likely to be limited with the existence of disproportionately more natural monopolies, dominant firms, and oligopolies than in large economies. Their presence can be expected to have adverse impact on prices of many goods and services over and above those caused by diseconomies of scale, with knock-on effects where they are also inputs in production. Thus, small economies suffer both from the inability to realize some scale economies and from the lack of competitive conditions in many of their industries.

Trade policy, aimed at enlarging the scope of the market and introducing competition into it, and competition policy, aimed at reducing the obstacles to competition in small markets and at regulating firms' conduct in order to achieve economic efficiency, thus have a crucial role to play in a small economy. While the effects of the former are surveyed in the next chapter, the rest of the thesis will deal with the latter.
Chapter 2: The Effect of Openness to Trade on Small-Scale Market Economies

The previous chapter focused on the economic implications and consequences of smallness for a market economy. This chapter introduces an additional factor into the equation: openness to trade with other jurisdictions. International trade among industrial countries is steadily rising, as is inter-regional trade. Large parts of trade in manufacturing are intra-industry trade, in which jurisdictions sell to each other competing goods. More large firms are becoming multinational, and multinational firms based in different countries crisscross national boundaries in establishing networks of subsidiaries. Major trade agreements, such as WTO/GATT, the EC and NAFTA, which were designed to facilitate trade between countries, have been signed and implemented. All these forces throw firms based in different national markets, including those based in small scale economies, into increased competition with one another. Although small market economies may differ in their degree of openness to international or inter-regional trade, a theoretical analysis of the effects of differing degrees of such openness should improve our understanding of its effects on the performance of a market economy. As this chapter shows, openness to trade holds promise for solving some of the efficiency problems of small scale economies, but leaves others to be resolved by other methods, mainly competition policy.

The chapter is organized as follows. The first section outlines the different factors which influence the degree of openness of an economy to trade. The second section deals with the effects of export possibilities on small market economies, while the third introduces the effects of imports on such economies. The two latter analyses focus on both the impact of such openness on the importing/exporting industry and on the market economy as a whole. The fourth section summarizes the effects of openness on a small market economy. It also analyzes the role of competition policy a small and open market economy.


2 Ibid.
2.1 Factors which Influence the Degree of Openness to Trade

The degree of openness of an economy to trade is determined by a range of different factors. Geographic isolation, for one, affects the height of the costs of transporting a product from one jurisdiction to another, which act as a barrier to trade. As was elaborated in the previous chapter, transportation costs are especially influential where low priced products or high shipment cost products are involved. Geographic distance may also blockade trade of perishable products where the distance between jurisdictions is significant. Australia’s distance from major exporters, for example, is large enough to make natural protection quite substantial. Trade is also limited where producers must be in close proximity to the ultimate consumers. For example, construction and installation activities can usually be rendered on a continuous and satisfactory basis only by domestically located labor. This condition is most typical in service industries, such as retail trade, personal service establishments, the curative and other professions. Political conditions may accentuate geographic isolation both by closing certain passages to trade and by preventing trade between adjacent jurisdictions. Differing technical requirements or differing cultural preferences or tastes may also affect trade levels. For example, keyboards designed for one alphabet cannot be sold in a jurisdiction in which another alphabet is used, without incurring adjustment costs. Trade levels are also affected by domestic laws and regulations such as those regulating dumping liability, exchange

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rates, preferential treatment in government tenders for local products, and intellectual property rights protection. For example, a country which recognizes an intellectual right of a patente over his patent would most likely not allow the import of products breaching this right.

These barriers to trade are often compounded by policy choices of tariffs and other trade restrictions. As elaborated in this chapter, high levels of tariff protection impose an economic cost that consists mainly of making suboptimal scale production feasible. Concentrated industries with only moderate comparative disadvantages (in international trade) are more likely to “price up to the tariff”. In so doing, tariffs act like amplified international transportation costs. But the analogy between interregional and international trade is not perfect because the cost of the tariff typically exceeds the transportation costs for manufactured goods and because the effect of the tariff on the cost of goods movement cannot be mitigated by locating closer to the border. The first difference is quantitative, which can be increased by administrative procedures and regulations. The second difference is qualitative and does not allow merging of market boundaries by locating plants differently.

All the above factors have one major characteristic in common: they all face traders who contemplate entering into another market. In addition, trade levels may be affected by other factors which also face competing domestic producers, such as brand name recognition and concentrated market structures, which were surveyed in the previous chapter.

2.2 The Effects of Exports on a Small Market Economy

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4 Exchange rates affect both import and export levels. Assuming that the domestic currency is priced higher than its real value, foreign industries will find it more difficult to import into the domestic market and domestic producers will find it easier to export their products into foreign markets than if the rates were set at the real value of the domestic currency. If, however, the domestic currency is priced above its real value, the opposite outcome will likely occur.

5 This preference may lead, in some cases, to closed tenders, in which the government considers proposals from local producers only. Such tendering reduces, prima facie, the number of participants in the tender. The small number of potential tenderers enhances the chances of a creation of a cartel as well as its chances to be successfully enforced. A. Jacquemin and M. Slade, “Cartels, Collusion and Horizontal Merger”, in R. Schmalensee and R. Willig, Handbook of Industrial Organization (1989) p. 415, at p. 453. See also the Re Collusive Agreement among the Participants in the Bezeq Tender Decision, in Trade Restrictions, (Tel Aviv: Vaad Mehoz Tel-Aviv Yafo, 1994) vol. A, p. 80.

6 Caves, supra, note 3, p. 347.
The export of products produced in small market economies into foreign markets can solve some of the efficiency problems of such economies, explored in the previous chapter, by changing the pricing, technology and capacity decisions of firms operating in them. Accessibility to export markets has one dominant effect on the domestic market: it enlarges its scope.\(^7\) When a domestic industry can economically export abroad, the foreign export markets are added to the aggregate demand the industry faces. As emphasized in the previous chapter, the size of the market in which a firm operates is an important determinant of the size of its plant(s) and of its average costs relative to the lowest costs that could be achieved by a plant of optimal size. In cases in which the level of efficiency is low, an expansion of the market could induce the installation of equipment of larger size and the achievement of lower average costs of production by the plants in the industry.\(^8\) Expansion of demand may also change the technology choices of market players by allowing them to utilize efficient production methods that require a large output in order to be profitable.\(^9\) Accordingly, if the domestic industry can attain minimum long-run average costs below the world price by exploiting scale economies and more efficient technology, then it has a strong incentive to do so and to export in order to make higher profits since its total output would be larger and its production costs lower. A firm adding new capacity has an assurance provided by the export markets that the price of its products would not fall below the world price.\(^10\) Thus, when producers can export in substantial volume, their plant size and technology choices may be less constrained than they would be if domestic market potential alone were tapped. Eastman and Stykolt observe:\(^11\)

"The inability to exploit economies of large scale due to inefficiency of plant

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\(^7\) G. Ashoff, "Economic and Industrial Development Options for Small Third World Countries" (Occasional Paper n. 91, Berlin: German Development Institute, 1989).

\(^8\) Great Britain in the nineteenth century and Switzerland in the twentieth are only two of the more obvious examples of jurisdictions that enjoy the economies of scale in their manufacturing industries to an extent quite impossible within the limits of their home market by a very heavy reliance on export markets. E. A. G. Robinson “Introduction” in E. A. G. Robinson (ed.), *Economic Consequences of the Size of Nations* (London: MacMillan & Co. Ltd., 1960) p. xiii.


\(^10\) Caves et al., *supra*, note 1, p. 13.

size is to an important extent the consequence of small market size. Profit maximizing behavior in a small market leads to production at sub-optimal plant size. The remedy is obvious: to increase market size in order to make it most profitable to operate plants of larger scale."

The ability of domestic firms to attain scale economies through exports is especially important where scale economies extend beyond the scale of the domestic market and thus the small size of the domestic market clearly constrains production scales and raises unit costs of domestic producers. But it also affects the size and number of plants and firms in oligopolistic industries. As suggested in the previous chapter, many domestic manufacturers in small economies tend to be small, unspecialized and inefficient by international standards. They survive in the small domestic economy behind a variety of trade barriers which protect them from competition. Export opportunities may change the incentive mechanism of such firms and encourage them to expand their operations in order to exploit scale economies. In some industries exports also create opportunities for further product specialization. In addition, the ability to export where market size is small relative to efficient scale firm also favours a diminished role for of multinational enterprises which have subsidiaries in the small domestic market. Where domestic firms achieve production scale economies, foreign subsidiaries may lose some of their comparative advantage.

Export possibilities may also affect the price of domestic products, although the price might still depend on the ability of domestic producers to segregate domestic and export markets. If the exporter is constrained in the choice of its domestic price, such as by anti-dumping laws, and assuming that an exporter located in a small market has little influence on world market price, then the domestic price will usually equal the export price, as calculated according to the specific anti-dumping law. If, however, the exporter is not constrained in such a manner and the domestic market is collusive or dominated by

14 Ibid, at p. 127.
a monopolist, then the profit-maximizing strategy of the domestic firm will most likely entail charging higher prices in the small domestic market while charging world market prices in the export markets. Such discriminatory pricing can be facilitated only if cost barriers to reimport of goods are high. In the case of an oligopoly, such dumping also requires effective collusion. Nonetheless, even if domestic firms are not constrained from charging different prices in different markets, the attainment of scale economies and the lower production costs of the domestic firm may also lower the profit maximizing price of domestic firms, be it a collusive price or not.

Once one domestic firm exports its products and is able to attain scale economies, and assuming that the exporting firm can serve total domestic market demand, operation at sub-optimal levels of production would most likely not be economical for any other firm operating in the industry. If the exporting firm is constrained by anti-dumping laws, its domestic prices would be based on operation costs at scale economies, and the market would most likely be taken over by the exporter.\textsuperscript{16} But, as emphasized above, even if the exporting firm is not constrained in it pricing decisions and the industry is monopolistic or collusive, the new domestic price would most likely reflect the lower production costs of the exporter. A domestic firm which does not exploit scale economies would have much lower profit margins or, alternatively, would not be able to make any profits on its products. If, however, the exporting domestic firm cannot meet the demand of both the domestic and the foreign market, and the world price less transport costs to the relevant foreign market minus any export taxes and adaptation costs plus any export subsidies is higher than the domestic price, then the demand curve the exporters face becomes infinitely elastic since the domestic firms will then export all their products,\textsuperscript{17} and the domestic market will not be affected by such exports.

The achievement of scale economies through the export of homogenous products implies, in some cases, a monopolistic market structure or a high level of seller concentration, since where exports are feasible it is usually uneconomical to operate at

\textsuperscript{16} The outcome is a little more complicated if the industry is collusive and the price which can be charged by the exporter in the domestic market, as calculated in accordance to a specific antidumping law, is above the costs of production incurred by other domestic firms. In such situations the exporter may find it more profitable to base the prices he charges in the domestic market on a collusive level.

\textsuperscript{17} Caves \textit{et al.} supra, note 1, p. 13.
sub-optimal levels of production and the domestic market can only support a smaller number of plants. In some cases, however, the number of firms operating in the domestic market may not change, or may even be larger, where firms choose to keep the domestic status quo before exporting occurred. Concentration in exporting industries might be associated with high profit rates, where firms still collude with respect to the domestic price, although the profits would be producer’s surplus rather than monopoly rents or high production costs (unless dumping is also taking place). This outcome is less socially costly than inefficient production, for it gives rise to excess profits, a problem of income distribution, but not to waste of resources.

The above analysis assumed homogenous products. Where products are differentiated, the outcome is somewhat more complicated. Product differentiation might create market niches in the domestic market that enable small domestic firms producing differentiated products to continue to operate at sub-optimal levels and to price their products at high levels. Nonetheless, where export is possible these niches will be harder to preserve as prices of competing products will most likely be based on much lower costs of production. The higher the buyers’ elasticities of substitution between brands, the more elastic the demand curve facing the individual producer, and the higher the cost-penalties for operating at sub-optimal scales of production. In any case, it is usually more profitable to achieve scale economies through export, where possible.

The small scale of a domestic market also affects the range of products it exports. As the previous chapter indicated, the number and the range of economic activities which can feasibly be undertaken in a small economy is limited by the interaction between the size of the market served, the MES of production, and labor and supply constraints. These factors create a domestic productive structure that can specialize in a relatively narrow range of activities. This necessarily affects the narrowness of exports, which are likely to be concentrated in a small number of products and firms. Because of the disadvantages of small size, the comparative advantage of small economies can be expected to lie in natural resources, including tourism, and goods and services which

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19 Eastman and Stykolt, supra, note 11, p. 24.
20 For example, in Israel the top 100 firms produce approximately two thirds of the exported products. Dan and Bradstreet, The 100 of Dan and Bradstreet (Tel Aviv: Dan and Bradstreet (Israel) Inc., 1994).
embody some degree of human capital intensity and specialized skills. Not surprisingly, many concentrate on industries in which transportation costs are non-existent or relatively minor, such as banking (Liechtenstein, Jersey, Switzerland) and computer software research and development (Israel). The growth success of many small states strongly suggests that they have been able, to some extent, to overcome their disadvantages and to secure advantageous niche positions in the international economy.  

Firms that are unable to support optimally-sized operations when operating in the domestic market alone do not and cannot, however, always exploit scale economies by exporting into foreign markets. Several factors influence the ability and the inclination of firms in small markets to export their products. First, it may not be economical for domestic firms to export their products. The ability of domestic firms to export their products depends on the relationship between domestic production costs, on the one hand, and foreign prices as well as the costs that must be incurred in order to export, on the other. Under conditions of homogenous products, the domestic firms will be motivated to export as long as the domestic price (after producing at the aggregate level of demand), is lower than the foreign market price plus transportation costs to the markets of destination and the foreign tariff costs as well as other costs that must be incurred by the exporter in order to export its products into another market (such as exchange rates, etc.) (the “landed foreign price”). If products are not homogenous, adaptation and other costs necessary in order to overcome barriers to entry such as product differentiation are added to the landed foreign price. Thus, if the landed foreign price is not high enough, no trade will take place. In some cases, different patterns in demand of specific products and high adaptation costs may, in fact, lead to the creation of sub-markets in the domestic market where demand elasticity is low and no trade is economical.  

Foreign firms might enjoy production cost advantages over domestic firms in small economies, which may prevent export. Although many domestic firms in small

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22 One such example is the market for very large refrigerators. For many years Sweden was the only country in which there was demand for such refrigerators. F. M. Scherer and Ross, Industrial Market Structure And Economic Performance (Boston: Houghton Mifflin Company, 3rd ed., 1990), p. 137.
economies tend to be large relative to the domestic market, many firms are still too small to achieve an efficient scale of production and therefore find it difficult to compete with foreign firms at home and abroad. As was elaborated in the previous chapter, most of these cost advantages of foreign firms stem from firm scale economies, such as research and development economies and capital economies,\(^23\) learning-by-doing economies,\(^24\) and first mover economies which influence possession of know-how and advanced technologies.\(^25\) Although most of these disadvantages can be overcome once the domestic firm achieves scale economies through exports, they are present at the time the domestic firm is contemplating such a strategy. Firms which sell highly specialized products in inelastic demand with a competitive landed foreign price will be in the most favourable position to export.\(^26\) It is noteworthy that where the new output levels of the domestic firms are a small proportion of total world production, it is appropriate to assume that the variation in the world’s supply price of a commodity resulting from a change in the small market’s output is usually negligible. Accordingly, in such cases domestic producers do not take into account the effect of their enhanced output on world prices.

Second, some industries may prefer not to export in order to avoid foreign dumping duties.\(^27\) If firms are deterred from charging prices abroad that fall below the domestic prices—e.g. through anti-dumping laws—and world prices are below domestic prices, then firms may forego exportation, depending on the more profitable strategy. The decision depends, \textit{inter alia}, on the cost savings from operating at increased production levels, the profit levels that can be reaped in the export market and the profits that can be reaped at home after lowering prices to world-market prices, compared to profit levels without exports.\(^28\) However, if firms are not constrained in any way from charging different prices in domestic and export markets, they may choose to maintain the supra-competitive price that has been the result of the conduct of firms in the domestic market.

\(^{23}\) \textit{Ibid}, p. 126; Caves \textit{et al.}, \textit{supra}, note 1, p. 82; Eastman and Stykolt, \textit{supra}, note 8, p. 104.

\(^{24}\) In a small country, a foreign firm is more likely to have prior experience in the same industry than a local firm from another region within the country. This is simply because in a small country there are fewer geographic markets. A qualification is that some of the learning economies are associated with adaptation of the product specifications and marketing to the local market.

\(^{25}\) Eastman and Stykolt, \textit{supra}, note 11, p. 86.

\(^{26}\) Marcy, \textit{supra}, note 9, at p. 274.


\(^{28}\) Caves \textit{et al.}, \textit{supra}, note 1, p. 11-2.
(monopoly or oligopoly).

Third, fear of domestic firms from retaliation of leading rivals abroad may lead to respect for national spheres of influence and inward-looking attitudes. This might lead firms to view their market horizons as predominantly intra-national and, in turn, lead to plant and firm scale sacrifices.

Fourth, an industry in a small economy wishing to achieve efficient scale by exports might be vulnerable to entry barriers in the importing country, and thus face a high risk-factor involved in building efficient scale plants. Large-scale production methods require a market outlet that is large, homogenous and stable over time. These requirement may make reliance on exports risky. The uncertainties of political interventions and tariff changes, as well as the risks of the convertibility of currencies, of differing rates of inflation, and of consequential difficulties in maintaining competitive prices, are such as to make investment in exports appreciably more risky than serving the domestic market. Trade agreements provide some insurances against these disadvantages of export trade. This problem can also be partly solved if the exporter has alternative opportunities to export its products into other jurisdictions. As long as the exporter is flexible in supplying different foreign markets, this risk may be minimal.

Fifth, exports, especially when concentrated in a small number of industries and geographic destinations, expose the economy to the problems of exogenous shocks and instability in export prices and earnings and in the health of their trading partners. Because most small economies are price takers in world markets, they have little influence over their own net barter terms of trade. In addition, their dependence upon assured access to key export markets makes them very susceptible to protectionist moves by their principal trading partners. While diversification is the appropriate solution to this problem, there is only very limited potential for this in many small economies. Trade

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29 Scherer et al., supra, note 13, p. 137.
31 T. Scitovsky, "International Trade and Economic Integration as a Means of Overcoming the Disadvantages of a Small Nation," in Robinson, ibid, p. 282, at p. 284
32 This would be the case, for example, for products which are marketed through established brand-names in the foreign country but without the brand-name of the manufacturer or homogenous products which do not necessitate investments in brand images or technical features which are unique to the foreign country.
33 Armstrong and Reed, supra, note 21.
agreements can also reduce this problem.

Given the above analysis, the scales of domestic plants, profit rates, and the technology employed by domestic producers are all affected by the industry's net position in international trade. Nonetheless, exports are not a panacea for all small market imperfections. While export-expanding policies, by broadening market horizons, have a favourable impact on the incentive to build large, efficient plants and plant additions and thus can solve some of the efficiency problems of small economies, they do not necessarily solve problems of high domestic prices which result from high seller concentration and high barriers to entry.

2.3 The Effects of Imports on a Small Market Economy

Like exports, imports may also significantly affect a small market economy's performance by affecting plant-size and technology choices as well as domestic market prices. Where importation is possible, it introduces new competitors into the market and it usually sets a ceiling on the prices charged for products in the domestic market.\(^{34}\) World price plus transportation, tariff and adaptation costs as well as other costs which must be incurred in order to import into the domestic market (the "foreign delivered price"), usually create an upper limit on domestic firms' prices. In other words, where domestic production and consumption are both small relative to world production,\(^{35}\) the demand curve facing domestic producers becomes perfectly elastic at a price equal to the foreign delivered price. This, in turn, influences domestic firms' capacity choices.\(^{36}\)

Assuming homogenous products, three scenarios need to be explored. Under the first scenario, the lowest point of the long-run average cost curve for domestic firms exceeds the foreign delivered price, and the foreign producer(s) have export capacity to

\(^{34}\) Caves \textit{et al.}, \textit{supra}, note 1, p. 9-13. The effects of imports on a small economy can be analyzed using the contestable markets theory. See Armstrong and Reed, \textit{supra}, note 21.

\(^{35}\) Consumption of most products in a small market is a small proportion of total world production. The variation in the world's supply price of a commodity resulting from a change in the small market's output or demand is usually negligible. Therefore, it is appropriate to treat as perfectly elastic the foreign supply of goods, the production of which is import-competitive in the small market. Eastman and Stykolt, \textit{supra}, note 11, p. 54.

\(^{36}\) The following analysis builds, heavily, on Caves \textit{et al.}, \textit{supra}, note 1, p. 9-20.
meet total domestic demand. The whole market is then taken by imports, and the domestic market disappears.\textsuperscript{37} The price of the product in the domestic market will likely be the foreign delivered price if the world market is competitive. However, if the world market is not competitive or if other foreign firms do not import their products into the domestic market and the foreign firm becomes the sole or dominant supplier to the domestic market, it may be able to charge supra-competitive prices for its products.\textsuperscript{38} One of the consequences of such a scenario is that profits accrue outside the border.

Under the second scenario, the importer’s delivered price equals the domestic industry’s minimum total long-run average costs. Domestic producers will refrain from supra-competitive pricing, will set prices at the foreign delivered price, and will be induced to operate at efficient scales of production. If they do not do so, they will not be able to compete with imports. In this case domestic market size has no influence on plant scale or pricing decisions.\textsuperscript{39} However, the equilibrium domestic price may be above this benchmark in industries in which competing imports are small. Thus, where the foreign delivered price is inadequate to shelter suboptimal capacity domestic producers, severe disadvantages of small scale will force viable local producers to achieve efficient operating scales and lower their costs. If the domestic firms cannot export, the enlargement of production scales might imply that a lower number of firms could operate in the market.

Under the third scenario, domestic production costs are below the foreign delivered price. Imports will not flow in as long as the domestic producer(s) do not price their output at or above the foreign delivered price. For example, in cases where scale economies are so pronounced relative to the national market that there is room for only one efficient domestic producer, if the monopolist’s marginal cost curve lies in the “sheltered” area (below the foreign delivered price), the monopolist’s profit-maximizing price may lie below the foreign delivered price. No imports should occur, because the monopolist maximizes profits by supplying the whole domestic market. The excess


\textsuperscript{38} These prices will usually be lower than the costs of domestic producers. Nonetheless, they may be above these costs if high barriers to entry exist.

\textsuperscript{39} Caves \textit{et al.}, \textit{supra}, note 1, p. 13.
profits earned by the monopolist depend on the relation between his long-run marginal costs and the import price, as well as on the elasticity of domestic demand. If, however, the monopolist's marginal cost is higher for some of the demand than the foreign delivered price, then imports flow in, and no excess profits above the foreign delivered price accrue.

The above analysis implies that while the height of the domestic barriers to trade could be unrelated to the profits earned by a competitive domestic industry operating at scale economies, higher barriers could increase the profits earned by a domestic monopoly or oligopoly where firms recognize their mutual interdependence. For excess profits to accrue, an increase in a barrier must raise the foreign delivered price enough to place its intersection with the industry's demand curve above that of the demand curve's intersection with domestic firms' marginal costs of production. It also implies that plant-size choices are affected by imports. Where import prices are low, strong import competition could force producers to strive to maximum efficiency, while import-sheltered producers may become complacent, fail to rationalize existing inefficient plant structures, and accept a division of the market which inhibits large-scale investments. With low foreign delivered price, domestic producers with excess costs would be obliged to lower costs in order to survive against foreign competition; they would be larger and fewer. However, in some cases intensive import competition may demoralize domestic producers and discourage aggressive investment, or induce them to seek refuge in products where costs are less important than closeness to local market trends.

Where scale economies are substantial in relation to the domestic market, so that producers are few and perfect competition cannot prevail, the analysis is more complicated than the above analysis. Where domestic producers price their products above the foreign delivered price and the domestic market is oligopolistic, a potential foreign entrant will take into account the effect of entering the market on the domestic price, as elaborated in the previous chapter. This conjecture implies that the entrant perceives the residual demand curve to be downward sloping and raises the possibility

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40 Scherer et al., supra, note 13, p. 127.
41 Ibid, at p. 154
42 Ibid, at p. 1. See also chapter 1, above, p. --.
that his profit-maximizing scale may be lower than it would be if the market was competitive. The domestic industry might still be wasting resources by producing at inefficient scale because of the interdependence of firms. This would likely occur where costs of transportation and foreign tariff levels are high and thus prevent domestic producers from entering the international markets by exporting.\textsuperscript{43} However, high producer concentration should usually exhibit at most a weak association with excess (monopoly) profits, because potential profits may be squeezed out between high costs (diseconomies of small scale) and demand rendered elastic by import competition.\textsuperscript{44}

The story does not end, however, here. Where goods are differentiated, the concept of a single world price no longer applies. The delivered foreign price consists also of adaptation costs as well as other costs necessary in order to overcome this barrier to entry. As Caves \textit{et al.} observe, the theoretical analysis of the consequences of seller concentration, trade exposure, and market size tend to hold with differentiated products. But differentiation adds an important new functional relation between firm size and market size. In an industry where products are sheltered from trade due to high degrees of product differentiation, the profit-maximizing scales of some enterprises may be smaller than the scale that minimizes unit costs of production even if there is room for several firms large enough to exhaust the available economies of scale. The lower the buyers' elasticities of substitution between brands, the less elastic the demand curve facing the individual producer, and the less the cost-penalties for operating at sub-optimal scales of production.

The relation between the size of the national market and the size of the typical national producer depends on the mechanism that determines which brands are produced domestically and which are supplied from abroad. Four scenarios need to be explored. First, suppose that every variety of a good is produced subject to the same production function and at identical costs in each country. Only the more popular varieties of a differentiated good tend to be produced in small national markets, with specialized varieties in small demand produced only in the large national markets and exported to smaller nations. The main reason for this outcome is that between producers supplying

\textsuperscript{43} Eastman and Stykolt, \textit{supra}, note 11, p. 120.
\textsuperscript{44} Caves, \textit{supra}, note 3.
differentiated varieties to the world market, the one in the larger country still enjoys the advantage of access to more customers who can be served (by assumption) at low transportation costs within its national boundaries. Accordingly, foreign firms exporting into small economies usually do not have efficient scale problems, since these scale economies have usually already been reached by production for the foreign market or other import markets. This fact gives an important advantage to producing the least popular varieties within the largest national markets and still exploiting economies of scale. As long as the foreign landed price is below the domestic price, these products will most likely be imported and sold at a price between the foreign landed price and the former domestic price, depending on the number of firms competing to supply the domestic market. Thus, in this case substantial exposure to import competition should increase the average size of outputs of varieties of a given product in a small economy and also the sizes of its firms, if each produces one variety. High barriers, on the other hand, reduce the average scale of production while increasing the number of varieties, because the production of varieties in smaller demand becomes feasible behind the trade barrier.

Under the second scenario, the domestic industry enjoys cost advantages in producing a product over its foreign rivals. Varieties of the product can be produced domestically in competition with relatively more costly imports. Such comparative advantage need not, however, imply low average output scales, if export is possible. Sellers of differentiated products, who can export profitably, face a larger market which is likely to be more price-elastic than the domestic one. The products are likely to be priced between the cost of production and the foreign landed price, depending on the domestic market structure. If export is not possible, however, the domestic firm may lose its cost advantage if it cannot attain economies of scale.

Under the third scenario, goods do not share the same cost curve, but rather cost

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45 This discussion assumes that the importing plant still enjoys economies of scale over its total output, including the output imported into the small economy. In other words, assuming that the long-run average cost curve does not rise after the firm has produced output for its previously served markets. Otherwise, cost advantages from economies of scale would be much smaller. In some cases the additional demand in the import market allows the firm to realize such economies. Scherer and Ross, supra, note 22, p. 102-6; See also Michal Gal, Traditional Natural Monopolies in Transition: The Case of the Electricity Supply Industry (L.L.M. Thesis, University of Toronto Law School, 1996), chapter 1.

46 Caves et al., supra, note 1, p. 16.
curves differ in the output scale necessary in order to attain minimum average cost and
the small economy has a comparative disadvantage. Since the small country’s industry
cannot export its products it would tend to produce the varieties with small MES of
production and with small cost disadvantages when produced at sub-optimal scales.\textsuperscript{47}
Foreign producers would most likely produce large scale varieties for the export market,
since they usually do not encounter efficient scale problems. They would adjust the
output level according to the effect they believe this output will have on the domestic
price.

Under the fourth scenario, goods do not share the same cost curve but cost
conditions favour the small economy. Yet the varieties with the largest MESs may still
not be found among the small country’s outputs, if it cannot export profitably. Any
change that increases exposure to trade may affect the MES of the typical variety.

Again, as with exports, imports do not provide a panacea for a small market
economy’s inefficiencies. The extent to which external trade can provide an effective
escape from the penalties of smallness is limited by a number of factors. First, foreign
firms that wish to export into small markets face the additional burden of transportation
costs and often also adaptation costs and tariffs. These barriers inhibit international trade
by making it uneconomical to export into small countries if these additional costs raise
the foreign delivered price above the domestic price. The higher these additional costs
are, the more protected domestic firms are from foreign competition, and the less they are
constrained from raising domestic prices. Obviously, if such costs are high enough, the
foreign landed price might be too high to solve problems of sub-optimal scale and
interdependence. Also, local producers enjoy some inherent advantages over importers,
namely advantages in quick delivery and feasible provision of auxiliary services.

Second, importation does not provide a solution where products are not
homogenous and goods produced elsewhere in the world are considered by local buyers
to be imperfect substitutes for domestic products. Such products can be anything from

\textsuperscript{47} Caves, \textit{supra}, note 3, p. 347. Many manufacturing activities in Australia reveal relative productive
advantage in activities that are small scale and not capital intensive. This behavioral finding may have
implications for the allocation of investments in the development and adaptation of production technology.
nontraded goods—bricks and haircuts—to tradable homogenous manufactured goods for which the local producer may gain some advantage because of delivery flexibility or the provision of auxiliary services.

Third, if world demand for a product concentrates in a small economy, there might not be strong incentives for foreign firms to produce this product. Accordingly, the scale of entry of foreign firms into a market and the market price might not be reduced to competitive levels.

Fourth, entry decisions of foreign firms into the domestic market may be influenced by the effect that the foreign producers perceive their entry will have on domestic prices. Here we present only the essential elements of the argument, since it was elaborated on in the previous chapter. In an oligopolistic structure, an equilibrium is possible with all rivals selling at high prices and domestic producers producing at inefficiently small scales. The effective elasticity of demand perceived by the potential price cutter determines the likelihood of a break-down of oligopolistic consensus. The effective elasticity is presumed lower when the product is differentiated, and thus an outcome with sustained inefficient scale facilities is more likely in a differentiated oligopoly than in one producing a homogenous product. Accordingly, a high foreign delivered price of imports raises the focal point for colluding domestic oligopolists and is more likely to preserve inefficient-scale capacity in differentiated than in homogenous goods and to sustain high levels of pricing of products.48

Fifth, if foreign importers can segregate the foreign market from the domestic market, they might profit more from a discriminating strategy according to which they will charge higher prices in the domestic, non-competitive market than in their home or international markets. Although the price charged by the foreign firm will still be below the domestic firms’ price, it might well be above the foreign landed price. The exercise of market power in the supply of a particular good or service means that the small state is effectively paying an excessive price and may also be subject to price discrimination in the international market relative to other larger states, which may have knock-on effects on other industries in which the traded good or service is an intermediate input. 49

48 Caves et al., supra, note 1, p. 17-8; Eastman and Stykolt, supra, note 11, chapter 7.
49 Venables has shown that the problem can be reduced by using tariffs. In case of no domestic output a
supra-competitive price charged by the foreign firm, once it has eliminated all of its domestic competitors, can be even be higher than the price charged by domestic producers before international trade occurred. The incentives to charge supra-competitive prices in foreign markets are strengthened by the tendency of imports to a small economy to be concentrated, due to scale economies in import. A study conducted by the Israeli government for the years 1961-2 which included 80% of the products imported into Israel for trading purposes indicated that imports are very concentrated. 67% of all imports were undertaken by the leading importer in each industry. The share of the two leading importers was 79%, the three leading importers was 90%, while the share of the four leading importers was 95%. Moreover, the local monopoly was, in many cases, the exclusive importer of potentially competing products. It should be noted, however, that since the early 60's the Israeli market has been exposed to higher degrees of competing imports, and it is reasonable to assume that import concentration levels have been significantly reduced. Foreign firms enjoying a dominant position in the domestic market may also abuse their power in other ways, to the detriment of domestic producers and consumers.

Sixth, foreign producers who face a choice between importing their products into a small domestic market and establishing subsidiaries in the small industry may find the latter strategy, which was explored in the previous chapter, more profitable, assuming that the economies of multipract operation are not negated by a national boundary separating the plants under common ownership. This, in turn, may serve to reduce import competition since foreign firms may not compete with their own domestic subsidiaries. As Gilo suggests, the decision between the two strategies is influenced,

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negative specific tariff can be used to reduce the cost to the economy by reducing price towards the marginal cost. Alternatively, an ad valorem tariff combined with a production subsidy could be used to achieve the same objective. With positive domestic output, a production subsidy can be utilized in combination with a tariff to achieve the same goal. A.J. Venables, "Production Subsidies, Import Tariffs and Imperfectly Competitive Trade" in D. Greenway and P. K. M. Tharakan (eds.) Imperfect Competition and International Trade: The Policy Aspects of Intra-Industry Trade (Brighton: Wheatsheaf, 1986).

51 Michael Schefer, Industrial Organization (Tel Aviv: The Open University, 1992), at 4.3.4.1.
53 Caves et al., supra, note 1, p. 13; Eastman and Stykolt, supra, note 11, chapter 4.
54 Eastman and Stykolt, supra, note 11.
inter alia, by the following factors. First, in cases where the foreign firm decides to import its products, it may face a trade-off between realizing economies of scale at the plant level—if such economies cannot be achieved by a subsidiary—and trade barriers such as tariffs and transportation costs. The smaller the country, the more likely is the foreign producer to opt for exporting from its efficient-scale facilities abroad. Conversely, transportation costs and the small country’s tariff tilt the choice toward the establishment of a subsidiary. Second, the decision might depend on the height of the transaction and information costs of direct investment, in comparison to the variable production costs or opportunity costs (plus, of course, tariff, adaptation, and transportation costs) involved with imports. Many small economies have historically maintained high restrictive policies on both inbound trade and inbound foreign investment that introduce exogenous impediments to both options. The third factor is the influence of antidumping liability in the domestic jurisdiction, if such liability exists. This factor is taken into account if a firm contemplates importing into a foreign market at lower cost than the one charged in the home country. This threat is not present when the foreign firm establishes a subsidiary in the small country. Fourth, the foreign firm may take into account political and social forces in the small economy which might make it easier to build a plant inside a country and not confront objections that the foreign firm is putting domestic workers out of business. Fifth, the foreign firm may choose to build a plant inside the small jurisdiction from fear of “non-use” sanctions against a foreign patentee. If the small jurisdiction’s patent laws define “non-use” of the patent as absence of production of the patented product in the small country, importation alone will not secure the patent. To avoid those sanctions, the foreign firm has to license its patent to a local producer or establish a subsidiary. Also, tax reasons may influence the decision. For example, if tax rates are lower in the small country than in the foreign firm’s base jurisdiction, and assuming that the firm pays taxes only in the jurisdiction of operation, it might prefer allocating some of its operations and profits to the subsidiary located in the

55 Gilo, supra, note 30, p. 43-54.
56 Caves et al., supra, note 1, p. 83. Much of the recent discussion in the WTO over effective market access and in the OECD in negotiations over a Multilateral Agreement on Investment (MAI) have focussed less on trade restrictions than on foreign investment restrictions.
small jurisdiction. It is noteworthy that the foreign firm can combine the two options by exporting at the first stage and entering at the later stage while gradually enhancing output to a level which justifies the establishment of a minimum efficient scale plant in the small country. Such gradual enhancement of output may have less harmful effect on price and does not involve repeated investment in enhanced capacity. A local potential entrant, on the other hand, has to either enter at MES and risk retaliation of incumbents in form of a price war, or enter initially as a fringe firm at sub-optimal scale of operation.

Finally, from an economy-wide perspective, strong reliance on imports exposes the economy to the risks of exogenous shocks. So long as political independence is desired, there will be justification for keeping within domestic boundaries industries whose products are indispensable and whose whole supply might be cut off. Also, small economies may be exposed, relatively more frequently and with stronger impact, to dumping. Dumping arises when a large producer or a distributor finds itself with surplus stocks, and may decide to sell a quantity of them which is large in relation to the size of the market in the small state, perhaps at a price below the normal price there. Although such conduct is restricted, in many cases, by anti-dumping laws, the sales might take place very quickly, and one cannot recover compensation for loss caused by dumping. Re-exportation of these goods is, usually, not a viable solution.

As the above analysis indicates, imports of foreign firms play a major role in the determination of market structure and performance of a small market economy. The cost advantages usually enjoyed by these firms make them plausible entrants into a small country's markets and plausible output enhancers. Yet, similar to exports, imports are no panacea solution to the problems of small size.

2.4 The Importance of Openness to Trade of a Small Market Economy

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59 Scherer and Ross, supra, note 22, p. 395, note 159.
60 For a view that opposes the position that dumping is anti-competitive in most cases see Trebilcock and Howse, supra, note 15.
A. General

Given the above analysis, the structure and performance of a small economy are influenced by the international dimensions of the economy. Openness to trade may shape the internal organization, scale efficiency, and competitive features of an industry in a small economy, the degree of product diversity, and the ease of entry (and exit) to (and from) the industry, as well as the allocation of resources between industries, and thereby may affect overall industry performance.

Specifically, openness to trade is one of the factors which influences the competitive conditions in the domestic market by determining the range of domestic supply prices within which domestic producers compete only among themselves, as well as the domestic output levels. At prices equal to and above the foreign delivered price, domestic producers in effect operate in the world market and are usually in competition with a larger number of firms. At this range the domestic supply price cannot vary without foreign trade imports. Domestic producers have strong economic incentives to operate at efficient levels, and prices are reduced, in most cases, to the foreign landed price. At prices below that level domestic firms compete only with each other. In this range the market is the domestic market as trade barriers insulate domestic business from the stimulus of foreign competition, allowing domestic firms to operate inefficiently, by international standards, because of small scale but still to remain profitable because they can set their prices to match those of imports. At prices below this range domestic producers are again competing in the world market, this time as exporters, although they still compete only among themselves in the domestic market.

Accordingly, in some ranges of domestic supply prices, openness to trade may solve some of the efficiency problems of small economies which were explored in the previous chapter. By enlarging the market size, trade increases the size of the markets in which firms compete, decreases their interdependence, increases their size and decreases

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61 Eastman and Stykolt, supra, note 11.
62 For example, Australia’s trade protection policy in the 1970’s has been especially important in leading towards the development of the dual economy: the competitive, export-oriented mining and rural sectors on the one hand, and the protected, import-substituting industrial sector on the other. General introduction in Parry, supra, note 3, p. vii.
the incidence of multiplant firm operation. Average output scale tends to increase with exposure to trade, whether import competition or export opportunities are involved, and substantial intra-industry rationalization at the plant level comes about with free trade. Most importantly, assuming low trade barriers, scale economies might pose no problem for industries that are open to trade, because activities will be carried on either at efficient scales, with part of the output exported, or not at all. As Caves et al. suggest:

"The dilemma of optimizing between low-cost production and competitive market structures may be resolved when the industry is exposed either to import competition or to opportunities in the export market. That is, any gains in technical efficiency from shrinking the number of competitors or making other anticompetitive changes in market structure incur no offsetting cost in allocative efficiency so long as they do not lower the intensity of the industry’s exposure to trade."

Trade is thus an important driving force in a change from anachronistic and custom-laden structures to more efficient industry structures. As Trebilcock observes, the introduction of outside competition “may play a central role in promoting a market economy from the bottom-up, given the severe problems of engendering competition from the top down.” Trade also reduces the effects of the competitive temperament and established market customs which impede competition. Trade would almost certainly not only level these differences but also create upward leveling in the direction of greater industrial and commercial efficiency. In addition, trade renders competition less personal and thereby more effective.

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63 The GATT rounds of tariff reductions have, for example, undoubtedly extended markets and increased trade flows and competition in Canada. In 1990 approximately 36 percent of Canadian manufacturing production was export-oriented, 90 percent of which was to the U.S. R.S. Khemani, “Merger Policy and Small Open Economies- The Case of Canada,” in B. Dankbaar et al. (ed.), Perspectives in Industrial Organization (Dordrecht, Boston, London: Kluwer Academic Publishers, 1990) p. 216, note 3.
64 Caves et al., supra, note 1, p. 15-6.
65 Caves, supra, note 3, p. 374.
66 Ibid.
68 Scitovsky, supra, note 31, p. 285. Scitovsky observed that it is typical of many European countries that the first efficient, large-scale plant often is built to cater to the export market- not because the internal market is not large enough to provide an adequate market outlet but because this is already being catered for by old-established manufacturers whom it would be unethical to push out of the market.
Non-economic considerations might, however, limit trade. Such considerations include, *inter alia*, defense and national security considerations; national political sovereignty - minimizing economic interdependence of essential industries; short-term effects of trade such as closing domestic plants; foreign consumption of domestic natural resources; environmental effects and political considerations.

In sum, scale economies and trade barriers interact in a complex way to constrain productivity: potential productivity disadvantages increase with scale economies and with the disadvantages of suboptimal capacity as long as small size and trade protection make inefficient capacity viable.69 Trade has the potential to remedy at least some internal market imperfections, i.e. market conditions which inhibit the development of otherwise competitive indigenous activities (scale economies, significant sunk costs, poorly functioning capital markets, transportation costs).70

B. Empirical Findings

Empirical studies confirm the relative importance of trade for small economies. Foreign trade is of greater weight in the economic activity of a small economy than of a large one. As a broad generalization, the ratio of foreign trade to national income rises as the population size declines.

Imports are especially important. The proportion of imports to domestic consumption of most small economies is substantial.71 In most cases the smaller the domestic economy, the higher the ratio of imports to gross domestic product.72 In Israel, for example, import level is equal to or even exceeds the GDP, while in the U.S. it is equal to approximately 20% of the GDP. In 1993, for example, imports into the Israeli market accounted for 33.2% of the total expenditure on goods.73 This is not surprising, given that the limited range of goods that can be produced in a small economy implies

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70 Armstrong and Reed, *supra*, note 21.


that there is likely to be substantial asymmetry between the patterns of domestic output and domestic demand such that imports, both inter-industry and intra-industry, play an important role in aggregate consumption.\textsuperscript{74} This is particularly true of economies that have developed and attained fairly high levels of per capita output and consumption. For at these levels, the variety of goods demanded by ultimate consumers is far wider than that of domestic output of final products. Foreign trade also has more significant weight where a few industries in which a small economy enjoys a comparative advantage consume much of its production resources.\textsuperscript{75}

Exports of a small economy usually concentrate on a limited number of products in which the small economy enjoys a comparative advantage over its trading partners.\textsuperscript{76} This specialization in a relatively narrow range of activities further implies that the productive structure is comparatively undiversified, since there is not much room for more industries operating at large scales necessary for export markets. Empirical studies have also indicated that small economies have a tendency to concentrate their foreign trade in one or a few geographic destinations—usually large ones.\textsuperscript{77} Compared to imports, a small economy usually exports less than it imports, both in the diversity of the products and the monetary value. Israeli export levels, for example, have risen dramatically in the last 40 years. The percentage of export from total national production has risen from 3.7 in 1950, to 21.7 in 1966, 43 in 1986, and 34 in 1993.\textsuperscript{78} These findings reflect the dramatic change in the orientation of the market. Nonetheless, imports are still higher than exports.

C. The Important Role of Trade Policy
As noted above, trade levels are affected by a set of different factors such as transportation costs and the elasticity of supply of foreign sources. Nonetheless, from a policy perspective, trade policy is the single most powerful instrument which affects the degree of such openness. While geographic distances and perishability of products are

\begin{itemize}
\item Armstrong and Reed, supra, note 21.
\item Kuznets, supra, note 30, p. 18-23.
\item Knox, supra, note 70, at p. 39.
\item Robinson, supra, note 8, p. xvii.
\end{itemize}
not affected by economic policies, tariffs and other trade restrictions are. Although many other policies, such as foreign investment and intellectual property right protection policies affect trade levels in varying degrees, trade policy is specifically aimed at determining the height of artificial trade barriers which can enhance or alternatively reduce the possibility and prospects of trade among potentially competing national industry groups. Accordingly, trade policy is one of the main policy vehicles available to small economies to improve market structure and conduct. Another important tool, which may also facilitate the entry of foreign firms into the small market is the domestic policy on foreign direct investment.

A domestic tariff facing foreign firms seeking to service the domestic market via import competition may increase the market power of domestic firms due to two main reasons. First, it reduces the number of competitors in the domestic market. Second, it raises the maximum price at which domestic plants compete only among themselves and that can be charged in domestic industries by an amount equal to the height of the tariff. In other words, it raises the focal point on which oligopolistic sellers can collude. The obvious remedy is to lower the domestic tariff so as to make inefficient production unprofitable. If tariffs were removed, plants attempting to sell at prices within the range that had been tariff-protected until then would encounter foreign competition and prices would be forced down. A lowering of the tariff would also oblige producers who were operating at inadequate scales to improve the efficiency of their operations if they are to remain in existence. If they were already operating at efficient scales and could not meet import competition, this would be due to international comparative disadvantage.\(^79\) Thus, the lower tariff would necessarily be accompanied by lower domestic costs of production, lower selling costs, or lower profits. The attractiveness of such reduction is obviously increased if the reductions can be used to induce the reduction of foreign tariffs and thus open to domestic producers wider export markets in which the interdependence of firms is less.\(^80\) In addition, it would also tend to reduce the advantages of multiplant operations and foreign control.\(^81\)

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\(^79\) Eastman and Stykolt, supra, note 11, p. 22.

\(^80\) Ibid, at p. 9.

\(^81\) Ibid, at p. 24.
Foreign tariffs reduce the access of domestic producers to foreign markets, by raising the minimum price at which domestic producers can export. By impeding competition between domestic and foreign producers, they increase the interdependence of domestic producers competing against each other in the small national or local market and raise the barriers to additions in capacity. The higher the foreign tariff, the less domestic firms can sell in large world markets in which they have little influence and in which they are not inhibited in the additions to capacity they may make by their depressing impact on prices. In some situations, tariffs might be sufficiently high to discourage most attempts to capture scale economies by building export volume. The removal of foreign tariffs would increase the size of markets and tend to increase the size of plants in small markets towards the most efficient size since the range of costs within which domestic producers compete only with each other and not with foreign plants would decrease. In the absence of foreign tariffs the level of costs and prices that domestic plants would have to achieve to export and compete in the international market with highly elastic demand is lower, and hence easier to reach, than in the presence of foreign tariffs. Therefore, the removal of foreign tariffs would clearly be a potential benefit to the structure of industries in small domestic markets (assuming, of course, that foreign traders do not engage in anti-competitive conduct).

Accordingly, trade barriers which turn firms towards the domestic market and away from export markets and blockade imports have especially severe effects on the performance of industries in small economies since they act as a restraint on competitive market pressures. The problem of motivation for large-scale production is compounded by trade barriers which aggravate the economy’s problem of small scale operation. Tariff levels are especially important where transportation and adaptation costs are low. For example, given the geographic concentration of most Canadian manufacturing industry in Ontario and Quebec and the large similarity in consumption patterns, firms located in the northern United States face more or less the same transportation costs in accessing Canadian markets that face domestic Canadian producers, but can operate at large scale, since they produce for both the Canadian and U.S. markets. The tariff structure in both Canada and the U.S. therefore plays an important role in creating and preserving an
economic environment in which scale-efficient firms can survive.\textsuperscript{82}

Moreover, when an economy is constrained by government regulation and controls, contrived economic rents are created, and there are economic incentives to share these rents by obtaining favourable government decisions such as allocation of foreign currency, import permits, investment licenses, etc. Thus, human resources will be devoted to seeking rewards from the political system rather than to increasing the production of goods and services. This is likely to have a negative effect on total real growth.\textsuperscript{83}

It seems hard to justify the protection of industries in an advanced economy from competition of similar plants in foreign countries when the domestic industries are not achieving the lowest possible costs of production and marketing.\textsuperscript{84} This is especially so when more efficient techniques are employed elsewhere.\textsuperscript{85} Moreover, the welfare effects of a protectionist trade policy are highly correlated with the size of an economy.\textsuperscript{86} In the absence of trade, the small size of the market may impose severe adverse welfare effects on the domestic economy, as it has fewer opportunities for autonomous self-sustaining internal growth than do large ones. In large economies, on the other hand, the larger scale of the economy creates the conditions for effective domestic competition and thus trade effects on the domestic competitive environment are less significant (although not trivial, as witnessed by the effect of foreign competition in the U.S. in industries like the auto industry). Small economies are thus likely to be significant beneficiaries from a relatively liberal international trade regime, due to a higher impact of imports on the conduct and performance of their domestic industries as well as the relatively larger expansion of the contract opportunity set for its domestic firms than for foreign firms operating from large

\textsuperscript{82}Ibid.
\textsuperscript{83}Anne O. Krueger, "The Political Economy of the Rent-Seeking Society" (1974) 64 American Economic Review 291. In the case of Australia there are real economic rents created from exploiting natural resources. It also created artificial rents through import-substitution policies. Australia has adopted trade policies described as "all round" protectionism. Furthermore, the states of Australia regulate and control economic activity within their domain to such an extent that for many products and services there is no national market, but rather a collection of state markets. Thus there are strong economic incentives for individuals and firms to seek rewards in state capitals
\textsuperscript{84}Marcy, supra, note 9.
\textsuperscript{85}Eastman and Stykolt, supra, note 11, p. 106
\textsuperscript{86}Armstrong and Reed, supra, note 21.
economies.87

While this work is not concerned with the justifications of trade barriers, some
general remarks regarding efficiency arguments associated with tariffs should be made.
Some advocates of tariff protection argue that tariffs, by raising the delivered price of
imports, shift the demand curves for substitutes outward and increase scales of
production.88 This outcome is possible but not necessary. If the product is indeed
differentiated, then excluding imports simply makes room for more domestic substitutes
produced at small scale. What deters efficient scale production is a combination of scale
economies, differentiation of domestic from foreign producers, and (artificial or natural)
protection of domestic producers. Studies conducted in small markets have established
that the tariff has not proved successful in achieving its goal of lowering average costs of
production in manufacturing by expanding total output and increasing the size of plants
so as to exploit available economies of scale.89 Eastman and Stykolt have shown that
Canadian tariff has not led to the establishment of efficient industries, i.e. industries that
minimize their costs by producing in plants of optimal scale and thus achieve lowest
average costs, given prevailing input prices. Rather, Canadian industries tend to have
excessive costs of production wherever the size of the market is small in the sense that
the number of plants of efficient size that could have supplied the Canadian market is
few. The small size of the market which led to high degrees of interdependence of firms
inhibited the installation of efficient capacity wherever efficient capacity was large in
terms of the domestic market available to the suppliers. The scope given by the tariff to
incurring excess costs of production tended in fact to result in actual overcrowding of
industries with plants of suboptimal size.90

87 Yet this should be modified since a high degree of openness intensifies the exposure of small states to
exogenous shocks in both their imports and exports because of their position as price-takers in world
markets. In addition, their dependence upon assured access to key export markets makes them very
susceptible to protectionist moves by their principal trading partners. Armstrong and Reed, supra, note 21.
88 Industrial policy has been broadly hostile to increased imports. A traditional justification is that the goal
has been to expand the labor-intensive manufacturing sector. Formerly, the underlying motive was to
support an increased population and gain certain economies of scale in settling a continental area. Today it
aligns itself more with the goal of income redistribution. Conclusion, in Richard E. Caves and Lawrence B.
396.
89 General introduction in Parry, supra, note 3, p. 7-8; For Canada see Eastman and Stykolt, supra, note 11.
90 Eastman and Stykolt, supra, note 11, p. 7.
Others argue that tariff protects industries that otherwise would not survive. To the extent that the minimum production costs exceed the rate of tariff protection, industries would disappear without some protection due to comparative disadvantage or to inefficient market structure and behavior. Tariff protection does increase the viability of small-scale production to the degree that scale economies permit. However, resources used in the protected sectors are often not used efficiently because of the effect of the tariff on market structure.\textsuperscript{91}

\textbf{D. The Importance of Competition Policy}

Competition policy plays an important double role in small economies. Where the first-best solution of reducing trade barriers to the efficiency problems of small economies is applied, competition policy has an important role in facilitating trade by reducing private barriers to the entry of foreign importers and to the exports of products from within its boundaries which are created by the conduct of firms operating in its industries. The freer the trade, the stronger the incentives of firms to re-erect barriers and keep their historical advantage.\textsuperscript{92} For instance, competition policy can create a level playing field by ensuring that foreign firms can access the domestic market. Such access should be effective i.e. award foreign producers the right and ability to compete with domestic producers on fair and equal terms in their home markets. This involves not only the ‘formal’ right to compete in the domestic market but also the creation and enforcement of rules of conduct prohibiting anti-competitive behavior, such as abuse of monopoly power and discouraging collusive, exclusionary or predatory practices. For example, where distribution or marketing channels are limited, competition policy has an important role in ensuring that foreign importers have equal access to these channels as do domestic producers. In addition, since many transportation infrastructures are subject to scale economies, competition policy has an important role in ensuring a reasonable level of transport charges to facilitate trade. Reduction of transportation costs through competition policy has significant secondary effects throughout the economy and may

\textsuperscript{91} For a thorough analysis of the objections to free trade see Trebilcock and Howse, \textit{supra}, note 15, p. 11-14.

reduce the need for competition policy in other sectors.\textsuperscript{93} Competition policy also has an important role in preventing anti-competitive conduct of foreign firms trading in the domestic market as well as anti-competitive agreements between domestic and foreign firms which affect its markets.\textsuperscript{94} In small countries with less developed antitrust systems, the freer trade carries with it the threat that powerful firms from industrialized countries will rush in and exploit their citizens.

Where trade barriers are not reduced, however, competition policy may be a second-best alternative for regulating small and closed or semi-closed markets. As Trebilcock suggests:\textsuperscript{95}

"A liberal trade policy is a far more potent pro-competition, entry-inducing, force than domestic competition or antitrust laws in most industries... Espousing strongly protectionist trade policies simultaneously with assertive domestic competition policies, or assertive domestic competition policies simultaneously with liberal trade policies, plunges us deep into a second-best world where welfare judgements about particular competition policies or their application in particular settings often become highly problematic. In other words, a liberal trade policy and an assertive competition policy are highly imperfect substitutes."

Competition policy also plays a critical role where unrestricted exposure to international trade is not sufficient to solve its efficiency problems. International trade is important but not overwhelming in its effect on efficiency and leaves room for the domestic determinants of market power, such as high seller concentration and high entry barriers. The abolition of trade barriers does not always lead to such an enlargement of

\textsuperscript{93} Armstrong and Reed, \textit{supra}, note 21.
\textsuperscript{94} In the EC, for example, agreements made outside its borders, even if they are made in non-member states and among companies which have their headquarters outside the EC, may be unlawful if they are carried out within the EC and affect trade between member states. Case 89/85 \textit{Wood Pulp} [1988] ECR 5193. Similarly, agreements among importers and domestic firms which restrict imports are also prohibited. See, for example, \textit{Franco-Japanese Ballbearings} OF 1974 L 343 19 (agreement between the ballbearing trade associations of France and Japan under which the Japanese firms agreed to raise their prices in France to substantially the level of the French firms was found to be illegal.) See also John Temple Lang, "European Union Competition Law: Some Aspects for a Small State" in N. Emilou and D. O'Keefe (eds.) \textit{Legal Aspects of Integration in the European Union} (Kluwer Law International, 1997) 111.

markets for domestic producers that the number of competitors facing them would become infinitely large and competition would take place. The presence of significant other costs of trading means that, in some cases, plants in small economies do not compete in a larger market than the domestic market with a lesser degree of interdependence. It may well be that competing imports act like a fringe of small domestic rivals rather than a force linking domestic prices to those of the world-market, and the pro-competitive effect of participating in export markets is curbed where domestic sellers can practice price discrimination against domestic buyers. These efficiency concerns remain, as elaborated above, due to factors such as high adaptation and transportation costs, timeliness of supply, and the inherent nature of service markets. Thus, measures to reduce seller concentration, entry barriers, or firms’ opportunities to collude still hold promise for securing more efficient allocation of resources. In other words, even in a small market with liberal trade policy, competition policy has a residual, first-best role for achieving efficiency goals in the market. The remaining competition policy concerns focus, mainly, on reducing or eliminating the abuse of dominant position, and on the collusion of firms in the market.

The symbiosis between domestic competition policy and trade policy in a small market emphasizes the need for their alignment. As note above, where trade barriers are reduced, there may be less need for competition policy to place pro-efficiency pressures on domestic producers. If, by contrast, trade barriers are raised, the result may be the creation or preservation of market imperfections in the domestic economy. To offset part of this effect, a pro-competitive domestic competition policy, although a second-best remedy, may then be more strongly invoked. An interesting indicator of the interdependence between trade and competition policies may be found in the provisions of the Canadian Competition Act which enable the competition authorities to recommend the removal of customs duties which prevent or lessen competition. Section 31 of the Act, for example, empowers the Governor in Council to remove or reduce customs duties whenever, as a result of an inquiry under the Act, a judgement of a court, or a decision of the Tribunal, such trade liberalization is required for remedying anti-competitive

96 Caves, supra, note 3, p. 370.
situations. Such a trade liberalization remedy should be preferred to a conduct oriented remedy, *inter alia* because the former offers the prospect of new entry which the latter does not. However, this provision has rarely been used. In most of the instances in which the Restrictive Trade Practices Commission made suggestions to the effect of reducing trade barriers, no action was taken by the government. Other sections of the Act encourage the Tribunal to take a trade liberalizing initiative in that it is empowered to make conditional orders requiring structural remedies unless within a reasonable time custom duties have been removed, reduced or remitted or prohibitions or restrictions on imports have been reduced or removed.

Trade restrictions as well as foreign investment restrictions that are not exogenous impediments to foreign competition but are endogenous policy choices that the small economy has made, create a self-inflicted policy tension with competition policy. It is somewhat problematic for government to bring action against domestic firms for anti-competitive behavior that is a direct result of the inherent characteristics of a small market in which artificially restricted foreign competition was a significant anti-competitive factor and which could be solved through the introduction of trade. For example, in the Canadian *Atlantic Sugar case*, the Canadian market could not support more than three sugar refineries. Given that sugar is a homogenous product, it was extremely easy for the firms to collude. The Government charged them with conspiracy,

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98 The Canadian Restrictive Trade Practices Commission recommended tariff reductions in three cases. In only one of the cases the recommendation led to a reduction of 15 to 20 percent in customs duties. See Davies, Ward and Beck, *Competition Law in Canada* (New York: Matthew Bender & Co., Ltd., 1988 updated to 1997) p. 3.05[6].


100 Sections 99, 86(4) and 75(1) of the Canadian *Competition Act*. See Trebilcock, *supra*, note 93, p. 36-7. The British Monopolies and Mergers Commission also recommended the abolition of import duties in several of its investigations. (in its report on colour film the MMC recommended the abolition of import duties on colour film; in its report on cellulosic fibers it recommended a reduction of import duties on cellulosic fibers).

101 This argument is more complicated where private enforcement is possible. The government that enables private parties to seek legal remedies for anti-competitive acts that are an almost inevitable result of a non-liberal trade policy, is the same entity that adopted, and is able to change, the trade policy.

for which they were convicted, although eventually acquitted on appeal. However, the fact that the Canadian trade policy erected high trade barriers in the industry made this behavior almost inevitable. The more suitable response to such a situation would have been to lower the trade barriers. Competition policy, in such cases, is only the second-best solution. It is the first-best solution only where trade cannot take place due to factors that government policies cannot affect.
Conclusion to Part I

Market forces alone cannot achieve efficiency and progressiveness in small markets which operate, mainly, by private ordering through decentralized market exchanges, and which are characterized by high concentration levels and high barriers to entry. In the absence of appropriate regulation, market forces will not, in many cases, sustain a desirable degree and form of competitive discipline amongst firms in the economy. Even openness to trade is limited in its effect on a small market, where market conditions are such that market players are not significantly affected in their size and price choices by world markets. Where this proves to be the case, competition policy has an important role in placing pro-efficiency pressures on domestic producers. Competition policy in a small state is a critical policy instrument with respect to determining domestic market structure and conduct and the intensity of competition.

Competition policy involves the control of private economic power by determining the appropriate parameters of competitive behavior and distinguishing normally advantageous competitive behavior from anti-competitive conduct. Competition laws seek to foster the conditions necessary for a competitive marketplace in order to create an economic environment in which firms can test their entrepreneurial skills, and consumers can derive the benefits which competition can deliver. They do so by supplementing or defining the rules of the game by which competition takes place in order to ensure that potential competitors are given a fair opportunity to compete in the market. Fairness in competition means the maintenance of conditions necessary for a competitive marketplace.

The economic theory underlying competition laws is based on the long-standing belief that the market’s invisible hand and free market forces are, potentially at least, far more powerful guardians of the social welfare than any other form of regulation. Competition draws competitors into the market to remove excess profit and it stimulates the incumbents to greater efficiency; it weeds out the inefficient and concentrates production in the efficient; it determines, by the objective test of market survival, who should be permitted to produce and it assures the allocation of labor and other inputs into the lines of production in which they will make the maximum contribution to total output.
The social dynamic process of competition brings diversity, choice, freedom of trace and innovation. Accordingly, the only government planning required is the application of competition laws, directed at preserving the competitive market mechanism. Another reason for trusting competition is that there is little basis for faith that outsiders—be they government planners, judges, lawyers, or academics—possess the knowledge and the motivation required to fine-tune business behavior on behalf of consumers. A complex economy is productive precisely because each participant need deal only with a relatively small part of that world; the actions of these competitors, disciplined by competition and motivated by prospects of gain, linked together and made consistent by market prices, offer a superior method for utilizing knowledge on behalf of the consumer. It is thus assumed that market forces, guided by the limitations imposed by competition laws, will produce good results or at least better results than any of the alternatives that largely abandon reliance on market forces.\footnote{103 Dunlop et al., \textit{supra}, note 95, p. 59.}

Where competition is workable, i.e. where the conditions that enable competition to take place are present, there is little need for direct government intervention in the market place, since the market’s invisible hand will maximize social welfare. However, economic theory recognizes that in order for competition to be workable, several basic conditions have to be present that will guarantee that the long-run market equilibrium that results from rivalry will be efficient. Among the conditions stipulated are two that stand out in importance: (1) absence of monopoly in the strict technical sense that no market participant or a group of successfully conspiring firms is so large relative to the market that its production or purchase decisions affect the market price. This can be achieved by several existing or potential\footnote{104 For the contestable theory see William J. Baumol, John C. Panzar and Robert D. Willig, \textit{Contestable Markets and the Theory of Industry Structure} (San Diego: Harcourt Brace Jovanovish, 1982).} competitors which provide alternatives to the offerings of any one competitor and act as a disciplinary force to prevent the exercise of undue market power, and (2) absence of a natural monopoly conditions in the market. Accordingly, competition is effective when there is strong mutual pressure among numerous...
comparable rivals; where no one firm dominates the market and there are enough firms to assure that firms do no collude together to fix prices.\textsuperscript{105} Therefore, the workable competition model can be viewed as a central target, the results of which competition law seeks, but the conditions for which it does not take for granted.\textsuperscript{106}

It is difficult to conceptualize a role for domestic competition policy without locating it within the parameters of other and often antithetical public policies. Competition operates within a framework defined by the general law and by social conventions. A host of statutes affect or may control economic decisions.\textsuperscript{107} Many domestic policies, such as intellectual property rights, foreign ownership, subsidy and tax, licensing, and health and environmental policies set some of the ground rules for market activities and, accordingly, affect the scope for competition.\textsuperscript{108} For example, intellectual property policy may create legal monopolies for rationales that emphasize the need for long-run dynamic efficiency in the market. However, such policies are usually not designed to affect all the aspects of competition within the market, but rather to deal with one particular aspect. Further, in many cases their goals do not align with economic efficiency, which is the main goal of competition policy. Competition policy takes into account the effects of such policies in designing an overall framework in which firms operate. Given that such policies are usually taken for granted in the competition law setting, this thesis is also confined to the proper role for competition laws within such frameworks.

Structural and conduct-oriented measures enforced under the aegis of competition law can improve industrial efficiency, impair it, or simultaneously engender mixed effects. Thus, the next part of the thesis will focus on competition policies which best deal with the special characteristics of small market economies. While most of the references will be to competition laws, economic regulation will also be dealt with, where

\textsuperscript{105} Ibid, p. 51.
\textsuperscript{108} Small size may also affect optimal policies in many other fields, such as tax, intellectual property, etc. These issues are, however, beyond the scope of this thesis and will be treated as exogenous factors. For the effects of small size of optimal intellectual property see, for example, Michal S. Gal “The intersection of Competition Policy and Intellectual Property: A Small Economy’s Perspective” (paper presented at the International Antitrust Conference, Tel Aviv, November 1999).
relevant. The empirical conclusions about the structural and performance characteristics of small markets, which were explored in this part of this thesis, will be translated into competition policy choices.
Part II: Competition Policy in Small Market Economies

Introduction to Part II

Competition laws are part of the rules of business that help maintain an economic environment which maximizes welfare by determining the rules of the game by which competition takes place. The basic tool which is used to achieve this aim in market economies is the creation of an economic environment in which firms can improve their economic performance based on competition on the merit, and consumers can derive the benefits that the market can deliver. Competition laws have an important role in creating and maintaining the conditions that ensure such competition. Such rules should be premised on the natural conditions of the market in order to maximize welfare and regulate markets effectively. Where, for example, the conditions for the effective and efficient operation of competitive markets do not exist, there is a weak chance that the results produced by a competitive market would be good, without government intervention. Recognizing that we may fall short of the goal of replicating a perfectly competitive market, substantial improvements over the market performance that would have prevailed in the absence of regulation can still be achieved by seeking the regulatory framework best suited for maximizing the net benefits of the industry to society.

This Part of the thesis suggests optimal competition laws for small economies, based on their inherent market conditions, which were surveyed and analyzed in Part I above. The main assessment criteria used in this part is the ability of the regulatory method to enhance and maximize domestic economic welfare. The regulatory regime should create incentives for industries to achieve not only allocational efficiency (static) but to minimize the costs (social as well as private) of production to the extent possible; to improve efficiency as rapidly as is economical - perpetually to devote efforts to improvements in efficiency so long as the incremental costs of those efforts

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1 As noted in Chapter 2 supra, the government influences the functioning of the economy in many ways- for example, by regulating the supply and availability of money, enforcing contracts, protecting property, and providing subsidies and tariff protection. In principle, these influences, however pervasive, are intended to operate essentially at the periphery of the market affected. Their role is generally conceived as one of maintaining the institutions within whose framework the free market can continue to function. Alfred E. Kahn, The Economics of Regulation: Principles and Institutions (New York: John Wiley and sons, Inc., 1970) vol. II, at pp. 2-3.
are exceeded by the value of the cost savings thus achieved; to engage in product or service innovation with an intensity subject to the same economic test (dynamic efficiency).²

Competition policy may require the balancing of such considerations, such as allocative versus productive efficiency. For example, the cost-benefit analysis of mergers often involves a trade-off between economies of scale and scope, on the one hand, and enhancement of market power, on the other. Kahn emphasizes the major problem inherent in policies directed to maintaining competition as follows:

"Effective competition calls for a balancing-off of considerations of efficiency on the one hand and purity of rivalry on the other. In the presence of economies of integration (as of scale), the balancing has to be between permitting firms large and integrated enough to enjoy these economies and firms numerous enough and with sufficient opportunity for effective rivalry. In the presence of potential economies of intra-firm coordination, the balancing is one of cooperation on the one hand and independence of action on the other."³

This balancing is even more complicated in a small economy, due to the magnifying glass effect. Small size creates concentrated market structures that may not create a difficult choice between competitive market structures that may be too fragmented to achieve productive efficiency and concentrated ones which may reduce allocative efficiency and sometimes even productive and dynamic efficiency. The issue is most pronounced in the extreme case-where economies of scale occur at such large volumes, and costs for below minimum efficient scales of operation are so great, that small firms cannot economically survive.

The search for optimal competition laws for small economies is motivated by the fact that competition laws are general formulas, designed to "fit all" under a certain market category.⁴ Optimality is thus judged on the basis of the ability of the law to enhance welfare overall, recognizing that in the margin false positives and false negatives might exist. The magnifying glass effect of a small economy, however, moves market conditions that are unique in a large economy and thus may be treated

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³ Ibid, vol. II, p. 255. Although Kahn was writing in the context of vertical economies, his ideas have as much relevancy and force when applied to economies of scale.
⁴ Some exceptions apply, such as the treatment of natural monopolies that are vertically integrated. See Chapter 5 infra.
as marginal cases, to center stage. A small economy should thus formulate its competition policies to enhance welfare in most of its markets, based on its unique market conditions. Applying the rules of large economies to small ones without adjustments may, thus, create many cases of over-inclusiveness, as highly concentrated industries are usually judged to be rare and are caught under general prohibitions applied in cases of high levels of concentration. The costs of condemning a beneficial practice may be more enduring in many cases than the costs of failing to condemn a harmful one, because welfare losses attributable to anti-competitive practices decrease over time as rivals enter the market in response to the lure of high returns.

Clearness of rules is an additional assessment criteria. Reasonably clear rules that are consistently applied are important from an economic perspective to allow firms to assess their legal risk a priori and to adjust their competitive behavior accordingly. Uncertain rules may lead firms to restrict rivalry more than is socially desirable in an effort to avoid liability. Clear rules may also reduce the costs of administering competition policy. Joskow and Klevorick argue that uncertain standards may also lead to under-compliance, because risk-preferring firms may try to exploit uncertainty.

While some issues of small economies have received attention, other questions are still terra incognita, with no systematical attempt to answer. Such questions will be the focus of this part. In order to emphasize the unsuitability of some rules that are applied in large economies to deal with the unique issues of small economies, such rules will be explored and analyzed. It can only be in full recognition of the inherent characteristics and problems of alternative regulatory mechanisms, that we can search intelligently for the optimal competition policy. Differences may result from

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5 This is most pronounced in merger policy. See Chapter 7 infra.
different formulations of principles, but it will more often result from different meanings given to specific key words, such as abuse and anti-competitive conduct, and from different methodologies for defining markets and assessing market power.

This part is organized as follows. Chapter Three is focused on general prescriptions of competition policy, such as the goals of competition policy and the main trade-offs. The following three chapters are organized along the market structures that are prevalent in small economies—monopoly, natural monopoly, and oligopoly. Chapter 7 deals with mergers that create such market structures. Chapter 8 concludes the chapter and points to some of the implications of this thesis, such as the current trend to create a world-wide competition law and the adoption of competition laws of large economies by small ones.
Chapter 3: The General Implications of the Economic Characteristics of Small Scale Market Economies for Competition Policy

Competition policy is applied to economic situations. It should thus be carefully designed as to take into consideration the special characteristics of the market into which it is applied, in our case a small-scale market economy. Accordingly, the empirical conclusions about the structural and performance characteristics of small market economies should be translated into policy choices. This is of special importance since, as will be elaborated, the standard industrial policy models on which competition policy in many large-scale industrial countries is based should be adjusted to the special characteristics of small economies. This chapter explores the basic policy choices that need to be incorporated into competition policy in small economies, while subsequent chapters will focus on the policy choices which need to be incorporated in special market settings, namely monopoly, oligopoly and mergers. The first section focuses on the goals of competition policy in a small economy. As will be argued, a small economy cannot afford to be vague in setting its goals, but rather should set clear and determinate goals which focus on achieving economic efficiency. The second section attempts to survey in a general manner the dilemmas of competition policy which are unique, or more important, to small scale economies than to large ones as well as the basic principles that should be applied to solve these dilemmas. These principles will serve as a framework for the rest of the second part of the thesis.

It should be noted, however, that it is not assumed that competition law is the most appropriate instrumental response for each economic situation. Rather, I attempt to determine which role should be assigned to private ordering through decentralized market exchanges.

3.1 The Goals of Competition Policy in Small-Scale Economies

In a small-scale economy it is vital that the goals of competition policy be clearly, consciously, and unambiguously defined. Goals signal to market participants, as well as
to the relevant authorities, how the law should be interpreted and implemented. As will be argued in this section, while goals should always be clear, the special characteristics of small scale economies increase this need in the competition law setting. The reason is that in small scale economies striking a balance between competing goals raises particularly difficult trade-offs.

Competition policy is basically designed to protect, promote and encourage the competitive process. Since competition is not an end by itself but rather a means towards certain ends, the ultimate objectives of competition policy should also be stated. The economic goals of competition policy focus on maximizing social or consumer welfare\(^1\) through the efficient use and allocation of scarce resources, and via progressiveness in the development of new techniques and products that put these resources to better use. Competition is valued for its effectiveness as a dynamic device for controlling the allocation of society’s resources and for the enforcement of market discipline by the market pressure from alternative sources of supply and the desire to keep ahead of rivals.\(^2\) Where competition is not effective, however, alternative measures for economic efficiency and progressiveness should be implemented. At the same time, competition may be valued for other reasons that are more social and political than economic (hereinafter: social goals): it disperses wealth and opportunity,\(^3\) it limits business size,\(^4\)

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1 Consumer welfare entails maximizing consumer surplus. It is maximized when firms produce at lowest efficient cost by realizing scale and scope economies and consumers are charged prices based on such lower costs. Moreover, it involves a partial equilibrium analysis which focuses only on consumer surplus in the industry under scrutiny and disregards welfare effects elsewhere in the economy. Social welfare, on the other hand, maximizes the total of consumer and producer surplus. In so doing, it does not take into account wealth transfers from consumers to producers, based on the assumption that gains achieved in one market are released for use elsewhere. However, the deadweight losses are losses to society and have to be balanced against the gains in production efficiency which result from cost savings as well as dynamic efficiency gains. Oliver Williamson, “Economics as an Antitrust Defense Revisited” (1977) 125 U Pa L. Rev. 699. In a world in which economies of scale or scope are pervasive and product differentiation is the norm, competition policy faces tradeoffs between consumer welfare and social welfare. Thus, it is important to distinguish and to choose between the two.


4 For such non-economic goals see Judge Hand’s decision in *United States v. Aluminum Co.*, 148 F. 2d 416 (2nd Cir. 1945).
and it disperses economic and political power. The first goal focuses on distributive justice values while the latter two goals focus on the concern that large or powerful firms may unduly influence the political process and receive undue immunity or benefit from government.

While social goals may be served by a pro-competitive policy framed in economic terms, there are several reasons why competition laws should strive to serve only one master: economic efficiency. First, direct legislation is a more effective and a more appropriate method of promoting non-economic objectives. As Areeda and Turner point out, "within any plausible bounds of statutory interpretation, antitrust law can at best make only a marginal contribution to them." Thus, although several of society’s policy objectives can be affected by competitive policy, they should mainly be sought in other ways.

Second, placing goals such as the dispersion of economic and political power in the competition law domain, as well as economic efficiency and progressiveness, is likely to generate considerable dispute or confusion. Even where there is no evident conflict, injection of social goals, by broadening the proscriptions of business conduct, would multiply legal uncertainties and threaten inefficiencies not easily recognized or proved.

Third, where social goals conflict with economic efficiency, courts either cannot materially promote them or can only do so at unacceptable costs. Undeviating pursuit of wealth dispersion and small size at the expense of efficiency will be costly, due to the fact that inefficient firms will be preserved in the market, and thus the market will operate inefficiently. In addition, such protection of small firms harms consumers who, on average, are likely to be less wealthy than the owners of small businesses, especially where such businesses are protected by competition law. Moreover, such protection would have to involve the whole scope of the market since sporadic protection of small

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5 Areeda and Turner, supra, note 2, pp. 7-8. For a case acknowledging goals of preventing high concentrations of power and entrepreneurial opportunity see, for example, the U.S. case of United States v. Aluminum Co. of America 148 F. 2d 416, 428 (2nd Cir. 1945)(Recognizing “the belief that great industrial consolidations are inherently undesirable, regardless of their economic results”; Lande, “Wealth Transfers as the Original and Primary Concern of Antitrust: The Efficiency Interpretation Challenged” (1982) 34 Hastings L. J. 67, 69.


7 The following three arguments build, heavily, on ibid, pp. 13-33.

firms would make little contribution to social goals. Systematic protection, however, would impose unacceptably high economic costs on the economy. Also, competition law efforts to preserve small business units over more efficient larger rivals would often be futile without costly on-going regulation, due to the fact that these inefficient firms would not survive in a free market. If one was to seek any combination of both social and economic goals, the minimum concession to efficiency considerations would be to permit any firm, by internal growth, to reach a size large enough to achieve economies of scale or of vertical integration. Once that concession is made, efforts to preserve smaller business units by proscribing other methods of obtaining these economies are largely futile. So long as growth by internal expansion is permitted, inefficiently small firms must either expand or expire. But even if such efforts would not be futile, they would involve the courts in essentially political decision-making for which there are no appropriate legal criteria, and in a costly regulatory, supervisory role for which they are ill-equipped. Thus, the protection of competitors instead of competition would appear to be costly as well as producing arbitrary results that would make competition law unpredictable and obscure clear thought about its proper and attainable objectives.9

Moreover, there are severe limits on the ability of judicial and regulatory bodies to make sound decisions concerning complex economic issues regarding the impact of different balancing of conflicting interests. Where process values such as certainty, predictability and justicability are valued,10 possible conflicts of goals should be minimized. Moreover, judicial bodies should not be the forum to balance conflicting interests since their role is to balance the interests in the specific case and not necessarily to take into consideration the effect of their ruling on the economy as a whole.

The two last arguments have additional force where small economies are concerned. In large economies social values are served, to a very considerable extent, by the competition policies that promote economic efficiency and progressiveness.11 The goals of dispersed power and wider business opportunities are achieved, in many cases, by a competition policy which eliminates monopoly not attributable to economies of

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9 Ibid, pp. 24-29.
10 Dunlop et al., supra, note 3, p. 70.
11 Ibid, p. 23.
scale or superior skill, and which prevents those mergers, agreements, or practices which obstruct efficient competition. But even if competition policy makes concessions to social goals, the few islands of market imperfections in a largely competitive sea are not apt to have much adverse incremental impact on the distribution of income and the maintenance of small, dispersed firms.

In a small economy, on the other hand, large economies of scale relative to the size of the market are much more prevalent. Economies of scale in production or distribution reduce, by definition, the number of firms necessary to supply any given demand, and may reduce or altogether eliminate competition in the affected market. Accordingly, economic and social objectives may substantially diverge when efficiencies dictate displacement of small firms by larger business units. Although one might argue that economies in production may reduce cost and price, and hence increase demand so that the number of manufacturing firms will remain the same, this is rarely the case. Thus, promoting goals that conflict with efficiency demands a high economic price from a small economy.

Moreover, as Khemani suggests, the importance of economic efficiency as a stand-alone objective becomes highlighted in a small economy where interdependencies in the interests of various stakeholders are likely to be more significantly affected by a particular market transaction. This reality increases the probability of lobbying, rent seeking behavior, and political posturing aimed at the ‘safeguarding’ or pursuit of other objectives which a public benefit or interest criteria promotes if not facilitates. If competition policy is influenced by non-economic considerations, the risk of costly industrial policy in the guise of competition policy becomes high.

Thus, the small sized economy is less able than its larger counterparts to afford a competition policy that is prepared to sacrifice economic efficiency for other broader objectives. In small economies, even more than in large ones, social goals should be

13 Areeda and Turner argue that in the U.S. courts have given efficiency and progressiveness priority over social goals. Faced with the square choice between a competitive market structure and efficiency, individually pursued and obtained, the courts have chosen efficiency, inter alia by deciding that monopoly resting on economies of scale or obtained by “skill, foresight and industry” does not violate the antitrust
given little or no independent weight in formulating competition policy.

Unfortunately, however, this has not been the case in many small economies.\textsuperscript{14} The purpose clause of the Canadian Competition Act (section 1.1), for example, enumerates four different goals of the Act. It provides that the Act should maintain and encourage competition in Canada "in order to promote efficiency and adaptability of the Canadian economy, in order to expand opportunities for Canadian participation in world markets while at the same time recognizing the role of foreign competition in Canada, in order to ensure that small and medium sized enterprises have an equitable opportunity to participate in the Canadian economy and in order to provide consumers with competitive prices and product choices."\textsuperscript{15} Assuming that Section 1.1 is not merely a harmless statutory placebo intended to reassure all relevant political constituencies of the good intentions of the Act,\textsuperscript{16} its goals might conflict. The first, second and fourth goal may be read as emphasizing the efficiency goal. The third goal may be read as another aspect of efficiency - i.e. in order to ensure efficiency, conditions of workable competition should

\textsuperscript{14} Some small economies, however, have acknowledged the importance of economic goals for their competition policy. Australia's competition policy, for example, underwent significant microeconomic reform in the 1980's. As part of a continuing reform agenda a number of significant structural and substantive changes have been made to the antitrust regime, intended to bring increased economic focus to competition policy while maintaining its legal aspects. See also discussion of New Zealand's policy goals, infra.

\textsuperscript{15} These and other relevant sections of the Act are reproduced in Appendix A.

\textsuperscript{16} As is suggested by Dunlop et al., supra, note 3, p. 286-7.
be created, where possible, by ensuring that the number of firms operating in the market would be as large as possible. But it can also be construed as a public interest argument based on the need to ensure that small firms have an “equitable” share of economic activity, in which case it might need to be balanced against efficiency considerations in cases where efficiency requires the operation of only a small number of large firms. The second interpretation is strengthened by the argument that the legislature does not waste its words and thus would not have included this goal if it did not add to the already enumerated goals. Achieving all of the enumerated objectives simultaneously thus may be unrealistic, as several are inherently contradictory. The same is true for other jurisdictions where the goal of securing the operation of small and middle-sized firms is raised either in the language of the law itself or in judicial review.17 The Canadian courts have not, as of yet, dealt with the conflicts that may arise from the purpose provision. Instead, they use the Act’s purpose clause as a rhetorical device in order to strengthen or justify their decisions in which they seek to promote efficiency.18

Stating no goals or stating the goals too broadly or elusively may, however, also be problematic. The Israeli Restrictive Trade Practices Law (the “RTPL”),19 for example, does not include an explicit goals provision. It does, however, include several provisions which signal that the RTPL’s ultimate goal is to regulate market conduct in accordance with the “public interest”. This is also the rhetoric which was used in the RTPL’s legal history20 and which is found in many judicial writings. However, public interest is a very broad notion, elusive in meaning, which may relate to a diversity of economic as well as non-economic goals that may be sometimes inconsistent in some respects. Neither the law nor the legislative history are very illuminating about what specifically is allowed or prohibited. Legislative history usually does not discuss specific applications and thus seldom reveals legislative preferences on the difficult issues that need to be resolved. The law’s provisions do not solve possible conflicts between different goals. For example, in

18 See, for example, R. v. Kanzaki Specialty Papers Inc. (1994) 56 C.P.R. (3d) 467, 82 F.T.R. 63 (T.D.) where the court stated that “the purpose of the Act is, among other things, to maintain and encourage competition and provide consumers with competitive prices and product choices”.
20 Explanatory notes of RTPL (old version) which were published in Hatza’ot Chok 327 of 5718-1957, p. 86, at p. 91.
considering the impact of a cartel, the Board of Restrictive Trade Practices should examine its effect on the “public interest”. It should examine, \textit{inter alia}, whether there is reasonable need for a cartel in order to enhance the efficiency of production, or bring down the prices, of a particular commodity or service,\textsuperscript{21} which is necessarily an economic consideration. However, the Board may also examine whether the cartel is necessary in order to protect the continued existence of an entire industry that is of advantage to the Israeli Economy.\textsuperscript{22} These goals might conflict, as the latter does not necessarily enhance economic efficiency. Consider the case where a cartel is necessary in order to eliminate import competition, and the Board is convinced that the industry is of advantage to the Israeli economy for a non-economic reason, such as the necessity of producing the product within the borders of the country for security reasons. Nonetheless, the rhetoric used by the courts as well as the Israeli controller signals that the RTPL’s goal is mainly economic: to eliminate obstacles to market competition, which are vital to the well functioning the market,\textsuperscript{23} and to regulate the operation and creation of economic entities which possess monopoly power. However, as will be shown in the following chapters, such wide economic rhetoric, which manipulates the competition rhetoric without penetrating the underlying substance, does not necessarily limit the possible interpretation of the Law’s provisions.

Accordingly, it is vital for policy makers in a small economy not to exacerbate the hazards of setting conflicting policy goals.\textsuperscript{24} Thus, we largely confine ourselves to an economic framework in analyzing and evaluating competition policy.

It should be noted, however, that even if economic efficiency and progressiveness are the ultimate goal, they are not easily implemented. Due to the complexity of setting

\textsuperscript{21} Section 10(1) of the RTPL, 1988.
\textsuperscript{22} Section 10(5) of the RTPL, 1988.
\textsuperscript{23} The Israeli Director of Restrictive Trade Practices’ decision In the Matter of Exclusivity Agreements Between the Gas Companies and the Gas Station Operators, 28.6.1993; Supreme Court Decision Bagatz 47/83 Tur Avir (Israel) Ltd. vs. The Chairman of the Board of Trade Practices Restrictions, LT(1) 169, 178; Civic Appeal 568/89 M. Diamant (1988) Ltd. vs. Nesher Mifalei Melet Israeliim Ltd. et al.
\textsuperscript{24} Australasian decisions have explicitly recognized that consumer welfare is ultimate goal of their competition laws. See, for example, the decision of the High Court of Australia in \textit{Queensland Wire Industries Pty Ltd v. The Broken Hill Proprietary Co. Ltd} (1989) 83 ALR 577 (the object of section 49 of the \textit{Trade Practices Act} (the abuse of dominance provision) is “to protect the interests of consumers, the operation of the section being predicated on the assumption that competition is a means to that end” at 585). See also \textit{General Newspapers Pty Ltd v. Telstra Corporation} (1993) 117 ALR 629. In New Zealand see \textit{Union Shipping NZ Ltd v. Port Nelson} [1990] NZLR 5.
priorities correctly in economic settings, it is difficult, if not impossible, to create a purpose clause which will direct enforcers and market participants to a conclusive interpretation in all cases. The intermediate objectives of economic efficiency and progressiveness are composed of allocative, productive and dynamic efficiency. Whether particular industry practices involve unacceptable, anti-competitive characteristics, or acceptably competitive ones can be evaluated in terms of their impact on these three forms of efficiency. In some settings, however, all three cannot simultaneously be realized, and where this is so, competition policy faces complex economic tradeoffs. It is with these tradeoffs that the rest of the thesis is concerned.

It should also be emphasized that economic efficiency— in the form of utilization of fewer resources and lower production costs— is not always synonymous with competition. While under most market conditions competition may serve as the means towards achieving economic efficiency, under concentrated market structures justified by scale economies more competition is not necessarily conducive to efficiency. For example, conduct which exploits scale economies is efficient, although its effect on other market participants that do not or cannot enjoy such economies can be severe. In order to maximize welfare, it is vital that a small economy recognize economic efficiency as being the underlying policy objective of the promotion of competition rather than viewing competition simply as a process. This does not mean that economic efficiency and inter-firm rivalry are to be regarded as being always mutually exclusive goals. Inter-firm rivalry is one means by which economic efficiency can be improved. But there may be substantial limitations on the extent to which economic efficiency can be attained in markets characterized by large number of firms, where no one is able to reduce costs significantly by the enjoyment of scale economies.

26 Many competition laws are couched in terms of impact on competition rather than the enhancement of efficiency. See, for example, section 36 of the New Zealand Commerce Act 1986 (use of monopoly power); Sections 77(b) (exclusive dealing and tied selling) and 50 (illegal trade practices) of the of the Canadian Competition Act 1985 which require a finding of “substantially lessening of competition”. But compare to section 27 of the New Zealand Act (authorization of anti-competitive practices) which expressly requires the Commerce Commission to consider efficiencies and to section 79 of the Canadian Competition Act which makes “superior competitive performance” a relevant consideration for the Competition Tribunal when examining prevention or substantial lessening of competition in reviews of anti-competitive practices. 27 James Farmer, “The Control of Monopoly Power” (unpublished manuscript). This contrasts with the approach that entry should be encouraged— perhaps even to the extent of providing incentives or subsides to
Not all small economies have however, adopted such an approach. The New Zealand Court of Appeal, for example, emphasizes rivalry. In *Tru Tone* the court stated that “in terms of the long title the Commerce Act it is an act to promote competition in markets in New Zealand. It is based on the premise that society’s resources are best allocated in a competitive market where rivalry between firms ensures maximum efficiency in the use of resources.” This is generally interpreted as promoting rivalry, as rivalry has the potential to promote all forms of efficiency, and in particular dynamic efficiency. Australian case law adopts a similar path. The implications of such an approach can be illustrated by the New Zealand *Cellular Phone* case, which necessarily required the assessment of the relative claims of economic efficiency and the process of rivalry measured by concentration. The case arose out of a tender by the New Zealand Ministry of Commerce of 3 out of 4 radio frequencies intended for the establishment of national cellular or mobile telephone services. The fourth frequency was at the time occupied by a subsidiary of Telecom, the incumbent telephone company, which was in the process of introducing cellular technology into New Zealand. Two of the three remaining frequencies were awarded to Telecom. The other was awarded to Bell South, a large US telephone company. Under the Radio Communications Act 1989, the consent of the Commerce Commission (the New Zealand competition authority) was required to the taking up of the rights. The Commission focused on the issue whether the acquisition of the frequency would be likely to confer on Telecom the rights of a dominant position or strengthen a dominant position already held, even though it was the most efficient provider of cellular services. It thus did not authorize the award of one of the two radio frequencies to Telecom. The High Court upheld the Commission’s decision, whilst the Court of Appeals overturned it, based on the fact that public benefits exceeded the

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new entrants or, conversely, handicapping the incumbent in some way- so that rivalry becomes a fact and monopoly power is thereby eradicated. See discussion in Chapter 4.3 infra.

29 Bernie Hill and Tom Weston, “Monopolization and Telecommunications Markets In New Zealand” (unpublished manuscript) at p. 21.
30 Queensland Wire Industries Pty Ltd v. BHP Company Ltd (1988-9) 167 CLR 177. (“The object of section 46 is to protect the interests of consumers, the operation of the section being predicated on the assumption that competition is a means towards that end.)
32 Farmer, *supra*, note 27.
detriments, and its acceptance that Telecom would not abuse its dominance.\textsuperscript{33}

It should also be emphasized that efficiency should result from a market rivalry process rather than anti-competitive acts. A different approach would mean that the court is determining the very outcomes the market is supposed to produce. The court is not equipped to make these judgements. Competition policy is a limited tool only and it is not intended to override the workings of a marketplace. This was recognized by the New Zealand High Court in \textit{Port Nelson}.\textsuperscript{34} Rejecting an expert economist's theory that conduct that creates an efficient outcome can never amount to anti-competitive conduct the court said: "...the approach rather jumps over the concept of "competition" in an effort to move more directly to "efficiency". However desirable the merits of that approach as a matter of current economic theory, it carries some difficulties when the Commerce Act directs attention specifically to the more immediate concept of "competition"..."\textsuperscript{35} That is not to say that efficiency will not be the outcome of a competitive market, but it is entirely a different thing to recognize an improvement in efficiency (of any sort) and thus argue that as a consequence there is no offense. That puts the cart before the horse. The market, and not the court, is to determine the appropriate outcomes.

\textbf{3.2 The General Implications of the Economic Characteristics of Small Scale Market Economies for Competition Policy}

\textbf{1st. Implications of the Basic Dilemma Among Allocative, Productive, and Dynamic Efficiency}

The characteristics of small scale market economies create a series of basic dilemmas in the formulation of competition policy. As suggested in the first part of this thesis, a small, concentrated market may create a conflict between productive, dynamic and allocative efficiency. Many small markets have technical limits permitting only a relatively small number of efficient sellers and hence requiring a high degree of seller concentration.

\textsuperscript{33} \textit{Telecom, supra}, note 31.
\textsuperscript{34} \textit{Union Shipping NZ Ltd. v. Port Nelson Ltd.} [1990] 2 NZLR 662, at p. 702.
\textsuperscript{35} \textit{Ibid.}
Productive efficiency dictates a minimum degree of concentration in the market. The dilemma for competition policy is how to reconcile these technical constraints on the number of sellers with the assumed undesirability of a certain type of industry behavior created by such high degrees of concentration on allocative efficiency. Dynamic efficiency considerations may also come into play based on different market scenarios. Large size, up to a certain degree, may be more conducive to innovation than small size and an impliedly greater degree of competition.

One implication of the fact that in small economies efficiency considerations are heavily influenced by the relationship between minimum efficient scale and market size is that the recognition of the importance of technical efficiency is vital to market performance. Accordingly, a small economy should not pursue a policy which views high seller concentration as undesirable per se. Rather, competition policy should be sympathetic towards the enhancement of output by individual firms, through either internal growth or mergers, which allows for the exhaustion of economies of scale which were not exhausted by the previous market structure, and could not be exhausted in less anti-competitive ways. For instance, the merger of ownership of plants or firms of suboptimal size in the same market, whether national or regional, may promote the consolidation of plant or firm capacity and the eventual achievement of economies of large scale. The need to achieve economies of scale is especially important in industries with potential export markets. This, in turn, would improve efficiency and tend to reduce foreign control.

The drawback of such policy is, of course, that high levels of concentration might result in higher industry concentration or, in some industries, in absolute monopoly control. One social cost of such higher levels of concentration might be the increase in the market power of firms in the industry and with it their ability to charge prices much above costs which, in turn, decreases allocative efficiency. Higher levels of concentration are not a free good also due to the income distributions caused by increased market power, the impact that widespread cartelization can have on dampening entrepreneurial vigor, and the social and political malaise that follow from excessive concentration of economic power. How much weight one wishes to place on such costs is a question of
values. Yet the efficiency benefits from mergers and internal growth in small, sheltered markets can be sufficiently compelling in at least a subset of cases that policy makers ought not to reject these possibilities out of hand.

Accordingly, competition policy should strive to strike the optimal balance between structural efficiency and competitive vigor so that firms operate at efficient scales and pass the benefits of greater efficiency on to consumers. As Caves et al. suggested:

“Our findings do not give much support to the hypothesis that higher levels of concentration by themselves would increase efficiency...Without beating the drum for divorcement and divestiture as instruments of competition policy, one can nonetheless support policies that resist increased concentration unless international competition is tightly constraining or there is compelling and specific evidence that efficiencies in scale will result in the particular industry.”

The key questions are a matter of degree: how sizable are the benefits as compared to the drawbacks of larger size of operation. Some mergers, for example, may not lead to consolidation of production but rather to higher price through the exercise of greater market power by the newly created firm. It is an appropriate goal of public policy to prevent such mergers. Other mergers might create economies of scale while increasing the market power of the merging parties. This increase in market power, however, may be a minor consideration if oligopolistic or monopolistic conditions are already present and prices are already at high levels. To illustrate from an example used by Scherer et al., permitting a sizable horizontal merger may increase long-run production efficiency if the potential merger partners have strong respect for their mutual interdependence that they would not build full-sized new plants independently for fear of either depressing prices or carrying too heavy an excess capacity burden, or if they decline to compete on a price

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basis to accumulate longer production runs and enhance their specialization.\textsuperscript{39} Also, as Williamson has argued, a one percent across-the-board reduction in production costs more than offsets the allocative efficiency losses from an increase in prices well above one percent under nearly any plausible set of assumptions.\textsuperscript{40} Thus, when competition fails—because markets are so small in relation to MES that tight oligopoly is inevitable—permitting still higher seller concentration levels to develop can lead to more efficiency. Concentration in such situations provides a second-best solution to the plant-specific scale economies problem. Nonetheless, such mergers could alternately strengthen respect for interdependence, making specialization-increasing and competitive expansion moves all the more unlikely or dampening those competitive pressures which would have stimulated independent efficiency-seeking behavior. Similarly diverse consequences could follow the implementation of a cartel with production rationalization features.\textsuperscript{41} Another important question focuses on the nature of the economies which might be sacrificed through dissolution.

\textbf{B. The Limited Effectiveness of Structural Remedies}

Another implication of the basic dilemma of a small scale market is that productive efficiency militates against direct action to lower seller concentration where scale economies are significant. Structural remedies, such as the prevention of mergers and dissolution of monopolies by reducing concentration, will help reduce the feasibility of collusion and interdependent behavior. However, such structural measures usually imply a trade-off between enhancing competition and exploiting potential cost efficiencies that flow from minimum efficient scale of production. Moreover, structural remedies based on mere size alone might deter or prevent highly-efficient dominant firms from competing aggressively or from taking advantage of their economies of scale, their new product development or exclusive distribution arrangements.\textsuperscript{42} In addition, structural remedies may not be effective without costly on-going regulation, due to the fact that

\textsuperscript{39} Scherer \textit{et al.}, \textit{supra}, note 36, p. 388.
\textsuperscript{40} Oliver E. Williamson, "Economies as an Antitrust Defense: the Welfare Tradeoffs," (1968) 58 \textit{American Economic Review} 18.
\textsuperscript{41} Scherer \textit{et al.}, \textit{supra}, note 36, p. 388.
\textsuperscript{42} For an extensive discussion of these trade-offs see Chapter 4.1 below.
small inefficient firms would not survive in a free market and would eventually grow to larger sizes that allow them to take advantage of scale economies. Accordingly, a small market warrants a different enforcement of competition law than a large market in that behavioral measures are of much greater importance in a small market since structural measures may be very costly.43

C. The Relative Importance of Conduct Regulation
A policy of encouraging concentration of ownership of plants of sub-optimal size or lenience towards specialization agreements and high levels of concentration based on scale economies would have to be accompanied by legal rules minimizing the effect of a more concentrated market structure on industry efficiency. Competition policy in a small economy should thus pursue a policy that minimizes the undesirable economic effects of concentrated market structures and supports the dynamic, long-run market forces leading to more efficient market structures.44 A strict anti-competitive conduct-oriented policy should be applied, for example, to reduce the payoff from collusive anti-competitive behavior. Such a policy may help break oligopolistic coordination, or induce oligopolists to operate at higher levels of output and lower prices than they would have but for the legal consequences. This, in turn, will enhance allocative efficiency. Another important task of competition policy in small economies is the close regulation of monopolies, be they natural monopolies or not. Given the economic teachings which determine the incipiency of monopolies in a small market which are likely to give rise to welfare losses, and given the length of time it might take market forces to erode such monopoly power, a small economy might not be able to afford to leave the regulation of monopoly power to market forces alone. Even in cases where monopoly is not the natural result, regulation of near-monopolies that have achieved their position by buying out or suppressing competition may be beneficial.

Competition policy must particularly focus on deterring the creation and

43 New Zealand has recognized that relatively high levels of concentration had to be tolerated in the small New Zealand economy, and structural controls on market power were rejected in favour of a behavioural regime. DTI 7 October 1985.
44 See the Skeoch-McDonald Report on Dynamic Change and Accountability in a Canadian Market Economy, (Canada: Department of Consumer and Corporate Affairs, 1976)
maintenance of artificial barriers to entry and on facilitating innovation and adaptation in the form of new products and methods of production and distribution,\(^{45}\) in order to permit new firms to enter and to expand in oligopolistic or monopolistic industries and increase competition. New entrants must have the opportunity to enter a market without handicaps other than the ones arising from the fact that existing competitors have first-mover advantages such as well-established ties with consumers and skilled employees. One of the methods to achieve such a goal, which was mentioned above, is to adopt a strict anti-collusion and anti exclusionary conduct policy. A second method is the disclosure of accounting and profit information such that it would be more difficult for firms to hide areas of rapid growth or high profitability behind a protective shield of consolidated reporting. Since the basic force attracting new investment into an industry is the promise of economic profits, i.e. profits higher than those offered by alternative investment possibilities of similar risk, information regarding areas of high profitability should be disclosed so as to encourage new competing investments. A third method is by ensuring that all competitors are on the same level playing field with regard to the intermediate products and the marketing outlets they need in order to operate.

D. The Difficulty of Applying Simplistic Rules in Small Economies
An important effect of the economic conditions of small economies is that given the incipiency and efficiency effects of scale economies in a small economy, a small economy necessitates a different focus in its competition laws than a large one and cannot afford to transplant simplistic rule-of-thumb competition policies applied in many larger markets. In a large economy simplistic rules which tend to deny categorically that real benefits can come from concentration-increasing measures can have little effect on efficiency. This is due to the fact that high concentration levels are rare, and that most production takes place under conditions sufficiently competitive that the benefits from further concentration or cartelization must on average be quite small. In a small economy, however, where scale economies have a sizable effect on efficiency, it is much less clear that single-minded reliance upon competitive forces is the best policy. The assumptions which underlie such policies are in question since more competition is not always more

\(^{45}\) Caves et al. *supra*, note 38, p. 372.
conducive to the efficiency of the market. Rather, there exists a substantial array of cases in which high seller concentration could lead to larger, more efficient production. Moreover, the removal of an individual monopoly or oligopoly practice where competition does not prevail in every other market cannot be relied upon to increase community welfare (the theory of the second best). Thus, competition policy in small economies requires the balancing of competing considerations that need to build on more than intuition and simple rules of thumb that can often be used in large economies.

One prominent example of the above is the role of structural considerations as a basis for a policy towards mergers and takeovers in several large industrialized economies. Simple structural measures are commonly per se indicators of market power associated with mergers or takeovers and are deemed to provide clear rules with regard to restrictive trade practices. This simple monopolization approach is based on the proposition that the solution to the problem of economic concentration is the promotion of more competition: in any context competition is desirable and any restriction on competition is cause for concern. However, while clearly recognizing the expected effect on conduct and performance associated with high levels of concentration, concentration measures alone are not a good guide for competition policy for a small economy. Rather, measures of levels of concentration should take into account economies of scale at plant and firm level which set technical limits to the number of firms that the market can support.

Unfortunately, due to the trade-offs that competition policy faces in a small economy it may be more difficult to set general rules about structure-conduct-performance relationships which can serve as a basis for a policy. While the structure-conduct-performance model provides a useful framework for examining individual cases, it does not provide a general rule regarding the effects of particular changes in structure or particular forms of conduct on performance. To illustrate, as noted above there can be no a priori indication as to whether or not market structures which lead to an increase in seller concentration in a market are, on balance, undesirable. Thus, a fuller

46 Parry, supra, note 37, pp. 3-13.
47 Conlon, supra, note 13, p. 65.
48 Parry, supra, note 37, p. 11.
specification of a more appropriate model is called for. But this is not without difficulties. Even if a model can be properly specified, all the data required to determine properly the impacts of changes in one or another variables in the model on various elements of market performance are rarely available. Some commentators go so far as to suggest that in small economies the tasks of competition policy are seemingly insurmountable.

The enforcement of competition policy measures regarding monopoly, oligopoly and mergers is interdependent. The ability to create an effective policy which regulates monopoly or oligopoly power reflects on merger policy and other alternative policy measures. A stricter and more effective competition policy towards manifestations of market power that are clearly anti-competitive such as collusive and monopolizing behavior will enable authorities to be more lenient towards mergers and growth of firms in the market which create market power. If, on the other hand, competition policy cannot deal effectively with anti-competitive manifestations of market power, a small economy should deal directly only with the creation of market power in the first place.

E. Areas of Competition Policy which are not affected by Market Size

To be sure, the basic economic theory and basic doctrines which serve as the basis of competition policy in large economies can equally apply in small ones. Nonetheless, the small size of an economy may necessitate a more careful balance among allocative, productive and dynamic efficiency than a large one. Yet differences in size have no effect on many areas of competition policy. These include, mainly, anti-competitive practices with no or limited offsetting efficiency effects. The most striking example is the collusive conduct of a cartel which does not bring about any efficiencies by allowing its members to realize scale economies, such as the setting of a supra-competitive price. Collusive conduct should not be treated any differently in small and large economies. The size of the economy need not materially affect the policy towards collusive conduct given that such conduct is against the public interest in both economies. The same is true for abuse of dominance offenses such as predatory pricing, exclusive dealing, tying, etc.

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49 Ibid.
50 Ibid.
It is nonetheless true that the prevalence of collusive or abuse of dominance conduct in a small economies due to its high industrial concentrated levels usually necessitates a stricter enforcement policy than a large economy, and that the remedies for such conduct should usually be conduct-oriented rather than structural. Offenses such as exclusive dealing, tying, and refusal to deal may affect competition more severely in a small economy than in a large one (quantity-wise), although the nature of the effect is similar in both jurisdictions (quality-wise). To illustrate, exclusive dealing may effectively foreclose some markets for potential competitors. Where, for example, a monopolist supplier of an intermediate good undertakes not to sell its products to another manufacturer, a monopoly is effectively created in the market for the final goods, a situation tantamount to vertical integration. As many more industries in the small economy are monopolistic, exclusive dealing has stronger effects on a small economy than on a larger, less concentrated one. By a series of exclusive dealing contracts on a regional basis with major wholesalers or retailers a manufacturer in a concentrated market can make entry of new firms into the industry more difficult than otherwise, and can even drive existing firms out of the market. Exclusive dealing contracts may also serve to blockade competing imports.\footnote{Michael Schefer, “Guidelines for Legislation on Monopolies and Restrictive Practices in Small Economies” (1970) Anti-trust Bull. 781, at p. 793.} In large economies, on the other hand, the effect of exclusive dealing is usually much more limited. In large economies concentration ratios are, as a rule, considerably lower than in small economies, so that exclusive dealing by one or two leading firms will still leave to their competitors a sufficient number of uncommitted suppliers or distributors.\footnote{Ibid, at p. 795.}

It is noteworthy that some anti-competitive offenses, such as resale price maintenance, are likely to have similar effects (both qualitative and quantitative) on small and large economies alike. In the retail trade the relevant market for competition is seldom the national market (assuming that there is no clear correlation between the size of the national economy and the average size of its local markets). Thus, retail trade in small economies can be nearly as competitive as in large economies without being less efficient. Economies of scale in retail trade, in particular at the store level, are rather
limited and can be exhausted by small undertakings. Once we view resale price maintenance as anti-competitive, there is no economic reason to treat it differently in small and large economies.

F. The Relative Importance of Self-Policing Policies in Small Economies

Control of monopolies and anti-competitive conduct, like most other kinds of public administration, is subject to economies of scale in the sense that the costs of administration per head of population decrease as the size of the economy increases. The number of monopolies, mergers and cartels which require the attention of the competition authorities in a small economy is not necessarily smaller than in a large economy, since although there are fewer firms, a larger percentage of the industries is prone to be dominated by monopolies or oligopolies. Thus, the control of monopolies and anti-competitive practices may well be a more expensive task in small than large economies, in relative terms and possibly even in absolute terms. A small economy is consequently under particular pressure to economize on the control of monopolies and restrictive practices. By adopting laws that create strong incentives for market participants to act in conformity with the objectives of the law, the costs of implementing competition policy can be reduced without reducing the standard of implementation.

3.3 Conclusion

Given the above outline of goals for competition policy in small economies, the next chapters will introduce and analyze different methods to achieve the above goals. I attempt to meet the double challenge of showing what the competition authorities and courts in different economies have been doing as well as recommend what should and could be done in order to formulate and implement a coherent and efficient policy under

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53 Although resale price maintenance has been treated as a per se offense in many jurisdictions, including the U.S., in recent years some economists have challenged the view that it does not carry with it some efficiencies. See, for example, David A. Butz, "Retailers as Informed Market-Makers: Inventory Management and Resale Price Maintenance" (paper presented at the law and economic workshop at Columbia University, Sept. 29, 1997).

54 Schefter, supra, note 32, p. 795


56 Schefter, ibid, p. 798...
the existing statutes. I will provide an evaluation of the relative efficacy of the alternative provisions and remedies that are in use or that might be used, based on the extent of the welfare losses associated with a particular problem, and the amenability of the problem to correction. In a world of scarce resources, the latter criteria should take into account, *inter alia*, the cost effectiveness of delineating those cases requiring public intervention both with respect to administrative costs and the level of uncertainty and delay caused to the business community.\(^{57}\) Accordingly, the competition net should not be cast so wide as to capture practices that cannot be dealt with effectively by the competition authorities, but rather specify clear and efficient boundaries for its intervention. It should also minimize both the costs of inevitable errors of over-inclusiveness (false positive errors) and under-inclusiveness (false negative errors).\(^{58}\) It may well be that the need for the law to be reasonably administrable, predictable, and consistently enforced may in many instances dictate rules and presumptions of varying intensity, the framing of which is vital to efficient competition policy.

In addition to the theoretical implications of different policies, the analysis will take into consideration also the practical aspects regarding the enforcement of such a policy in practice, that is the institutional limitations of judicial and other relevant institutions in applying the law. Such considerations focus, *inter alia*, on the ability of the competition authorities to obtain and disseminate information, to comprehend economic arguments, and to balance competing considerations. Due to the fact that often particular facts can be understood and appraised only with the aid of numerous presumptions of varying intensity, the effect of different presumptions will be analyzed. The normative aspects of competition laws will also be analyzed.

In sum, the special characteristics of small economies increase the need for optimal competition policy. The question is how to make efficiency operational in a small economy setting through competition law. I will address this question in the following chapters.

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\(^{57}\) The process of determining whether particular conduct is harmful is subject to a considerable degree of uncertainty. The Skeoch-McDonald study, for example, questioned the ability of an agency to distinguish between the practice of price discrimination and the normal operations of a competitive market. Skeoch-McDonald study, *supra*, note 44. See also Richard Posner, *Antitrust Law* (Chicago: Chicago University Press, 1976.) ch. 8.

Chapter 4: The Regulation of Single Firm Dominance

The evils of single firm dominance have long been recognized. Market economies recognize that it is possible for market players to amass such market power that they create allocative, productive and dynamic inefficiency, as well as X-inefficiency, political-economy effects and distributive effects. Such firms may become immune, to a large degree, from the competitive process and the disciplines that the process imposes. Monopolization provisions are thus designed to prevent the abuse of undue economic power. As elaborated in Chapter 1 above, scholarly studies of different sized economies clearly show that dominant firms are not a rare phenomena in small economies (relative to the number of firms operating in the market and to the number of markets in the economy). Thus, dominance is one of the most important issues with which competition policy in small economies must deal. Moreover, as economic theory suggests, where there exists a small group of leading firms which have a large market share in the aggregate, the tacit collusion, or oligopolistic interdependence that many economists believe characterizes the relationship among leading firms in highly concentrated markets may bring about pricing and output strategies which are analogous to those employed by a dominant firm ("shared monopoly").¹ This fact is reflected in the competition laws of many jurisdictions which provide that the provisions which apply to single-firm dominance apply to shared monopoly as well.²

² See, for example, section 26(D) of the Israeli Trade Restrictive Practices Act 1988 which defines monopoly as including a collective dominance group which controls more than 50% of the market, if the Director has declared such a group to be a monopoly. Such declaration was made in Re Marketing and Selling of Vacation Units (There, the Director found that six firms which were involved in the marketing and selling of vacation units did not compete among themselves, but were controlled by the same persons and several even operated as agents for their potential competitors. The Director argued that all six firms could be seen as one concentrated group. Since they controlled more than 50% of the market, he declared them a monopoly.) England adopted a similar approach in sections 6 and 7 of the Fair Trading Act. Such approach creates a method to deal with market situations in which a small number of firms dominate the market, by coordinating their activities and not competing among themselves, although no firm alone has dominant market power. It allows the incorporation of market structures of oligopoly and duopoly under the scope of monopoly. The Canadian abuse of dominance provision (section 79 of the Competition Act 1985) also refers to control by “one or more persons” which may apply to shared control of a market. See Bruce Dunlop, David McQueen and Michael Trebilcock, Canadian Competition Policy- A Legal and
Accordingly, this chapter focuses upon the choice of policy instruments necessary to meet the challenges of markets with single firm dominance ("monopolies"). Such regulation is as significant a variable as choice of technology in determining the economic outcomes in a market. In particular, the chapter's main goal is to consider and evaluate whether different tools and emphasis are required in small markets in order to provide efficient and effective solutions to the regulatory challenges posed by such market structure.

The chapter is organized as follows. The first section defines dominant position in a market, which is a necessary threshold in all monopolization provisions. The second section analyses the regulation of mere monopoly and monopoly pricing. The third section focuses on the exclusionary conduct (and intent, where necessary) of dominant firms which constitutes an abuse of dominance.

As will be argued throughout this chapter, small economies require a different focus and emphasis in their competition laws in regulating single-firm dominance than large economies. The size of the typical market is an important factor which deserves special consideration. Although the economic theory regarding single-firm dominance on which all competition laws are based is presumed to be similar, the size of the market affects the tools that should be used in regulating such dominance. As the first section argues, the market share threshold for single-firm dominance in a small economy should be lower than that of a large one. Section two argues that costs of mere monopoly and of monopoly pricing are higher in small economies than in large ones, a fact which should not be ignored in formulating competition laws. Section three emphasizes the need for close regulation of the use of a monopolist's market power in a small economy. Natural

Economic Analysis (Toronto: Canada Law Book Inc., 1987) at p. 202. See The Director of Research and Investigation v. The Bank of Montreal et al., (1996) 68 C.P.R. (3d) 527. Competition Tribunal Consent Order CT-95/2 (20 June 1996)(Allegations of abuse of dominance were applied to a group of companies which operate a shared electronic network service that enables network participants to provide consumer-initiated electronic financial services. The case ended in a consent decree.); See the EU case of Joint Cases T-68/89, T-78/89 SIV and Others v. Commission (1992) ECR II-1403 (the Flat Glass case); The U.S. treated a cartel as one firm in Unites States v. Paramount Pictures Inc., 334 US 131 (1948) (five motion picture producers were treated as one firm because of conspiracy and thus amounted to a monopoly with 70% of the market.) Not all competition laws have, however, adopted such an approach. See, for example, New Zealand's abuse of dominance provision (section 36 of the Commerce Act 1986) which does not extend to shared monopoly. Similarly, the Australian monopolization provision (section 46 of the Trade Practices Act 1986) also does not apply to a shared monopoly. See Dowling and Dalgety Australia Ltd. (1992) A.T.P.R. 41-165 at 40, 274.
monopolies are left for the next chapter. Given the crucial economic distinction between natural and other monopolies, the former should be regulated in a different fashion from the latter, where natural monopolies come under the scope of competition laws.

4.1: Dominant Position Defined

4.1.1 Introduction

As Confucius once said, "If names are not correct, language will not be in accordance to the truth of things." Hence, the natural starting point of an analysis of single firm dominance is the introduction of the terminology ("names"). Market power is the central feature in modern competition law analysis. With limited exceptions, if a firm (or a group of firms, acting jointly) does not have dominant market power or is not likely to obtain it, its conduct is irrelevant for competition law purposes. In particular, the line between what is lawful and what is not in monopolization provisions is defined, *inter alia*, in terms of a market power threshold. Such threshold determines the boundaries within which market players can operate freely without coming under the scope of the monopolization provisions. The higher the threshold, the greater the freedom of market participants to conduct their affairs without restriction. Accordingly, how one determines whether and to which degree market power exists in particular circumstances is an important issue.

What, then, is the degree of market power, the abuse (or use for anti-competitive purposes as some competition laws suggest) of which is deemed anti-competitive? At what point does a firm’s market power exceed a threshold at which the law prevents it

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3 See, for example, Thomas G. Krattenmaker, Robert H. Lande and Steven C. Salop, "Monopoly Power and Market Power in Antitrust Law" (1987) 76 Georgetown Law Review 241. The use of a structural factor (market power) as a precondition for analyzing the competitive conduct of firms minimizes the costs of some litigation errors (over-inclusiveness) and the costs of competition law administration. Paul L. Joskow and Alvin K. Klevorick, "A Framework for Analyzing Predatory Pricing Policy" (1979) 89 Yale L. Rev. 213, at p. 225-7. The market power precondition is justified because the occasions when a firm lacking market power can engage in anti-competitive conduct which creates welfare losses are so rare that analysis of the conduct of the firm in each case is not justified.

4 It is noteworthy that in some jurisdictions, such as Australia and New Zealand, a requisite for a finding of abuse of market power is that the abuser actually use its dominant market position in order to engage in the allegedly anti-competitive conduct. In other jurisdictions, such as the EC, there is no need to prove that the alleged anti-competitive conduct was based on use of a dominant market position once such dominant position has been proven. The implications of this distinction will be analyzed in chapter 4.3.
from abusing such power? The key questions involving market power can be formulated accordingly:

1. What is market power?
2. What is the relevant market?
3. How do we determine the degree of market power in the market?
4. What is the threshold degree of market power necessary to infer a dominant position?

While the answers to the first three questions are usually not unique to one jurisdiction or another since similar analytical tools are used in order to determine their answers, the answer to the fourth question varies from one jurisdiction to another. Competition laws of different jurisdictions vary in the terminology and indicators they provide for such dominance. “Dominant position,” “monopoly power,” and “significant market power” are only some of the terms used by different competition laws which signify the degree of market power necessary for a finding of a dominant position. As will be argued below, differences in the size of markets should influence the answer to the fourth question. Where the market threshold is based on the market share of the dominant undertaking, small economies should use lower market share thresholds than larger economies, given that market elasticity of supply in markets in small economies is commonly lower than that of markets of large economies. Given that the answer to the fourth question depends on the factors which determine the answers to the first three questions, especially the two latter ones, we shall first briefly consider them.

4.1.2 Market Power

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6 For example, the methodology for defining markets follows, in many countries, that which was incorporated in the 1982 U.S. Department of Justice Merger Guidelines, reprinted in Trade Reg. Rep. (CCH). The Guidelines provide a relatively simple framework within which to organize the relevant data. The approach normally implements the “hypothetical monopolist” test, which focuses on the question whether consumers would be prepared to turn to substitute products if the price of the widgets produced by a monopolist were raised by “a small but significant amount.” This approach seems to have been generally accepted by competition law agencies and commentators around the world. It was adopted, for example, in the Canadian Merger Guidelines (Director of Investigation and Research, Competition Act, “Merger Enforcement Guidelines” (1991)), although Canadian courts have not as of yet implemented this test. The Australian competition law community, including the Trade Practices Commission and academic commentary also has generally endorsed it, although absorption by the courts has been less rapid. See Hay1994, ibid.
Market power is the ability of a firm (or a group of firms, acting jointly) to raise price above the competitive level without losing so many sales so rapidly that the price increase is unprofitable and must be rescinded. A firm with market power can profitably set prices above its costs in the short run without concern for competitors. The market power of the firm in the long-run depends on the extent of the barriers to the entry or expansion of competitors. These barriers are the technological or institutional advantages of the established firm, which enable it to raise price persistently above its minimal average cost without attracting new entry or expansion. Examples of such barriers include superior production techniques, access to limited supplies of raw materials, economies of scale, and legal barriers such as trade restrictions and licensing requirements. With low entry barriers price substantially above economic costs attracts other firms to pursue a share of those profits by entering or expanding in the market, and subsequently pushing price down toward competitive levels. Thus, dominant market power arises only when the firm enjoys some protection against rivals' entry or expansion that would erode supra-competitive prices and profits.

7 Landes and Posner, supra, note 1; F. Scherer and M. Ross, Industrial Market Structure and Economic Performance (3rd ed., 1990). It should be noted that some courts have adopted an additional test to market power which focuses on the ability to exclude competitors. (See, for example, U.S.: United States v. E.I. DuPont de Nemours & Co., 351 U.S. 377 (1956), reiterated in United States v. Grinnell Corp., 384 U.S. 563, 571 (1966) and in Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 996 no. 20 (1985); EC: Europeoinballage Corporation and Continental Can Company Inc. V. E.C. Commission [1972] C.M.L.R. (R. & Supp.) For such reading of the case see Valentine Korah, “Concept of Dominant Position Within the Meaning of Article 86”, (1980) 17 Comm. Mkt. L. Rev. 395, at p. 397). This definition of market power has created unclarity. As Landes and Posner argue in the U.S. context, the court may have been making the corollary point that any firm that has the power to raise price above competitive levels must also be able to exclude entrants; otherwise it would not be able to maintain the higher-than-competitive price. Or it might have been making the point that the firm with market power could, by reducing its price to the competitive level, exclude firms whose costs are higher than the competitive price- inefficient firms that were attracted into the market by the price umbrella that a monopoly price holds over the competitive fringe in the market. Finally, the court may have had in mind the exclusion of equally or more efficient competitors through predatory pricing or other exclusionary practices. Landes and Posner, supra, note 1, at p. 977. All three explanations are troubling, since they emphasize a behavioural aspect (excluding competition) which is not necessary in order to have market power. The court may have been referring to the fact that in order to have market power the market in which the alleged firm operates must have high barriers to entry which, by definition, exclude potential competitors from entering the market. Such barriers may exist, however, without any conduct on the part of the firm which has market power. Krattenmaker et al. suggest that the two prongs of the du Pont formulation signify two alternative and independent methods of achieving economic power. Such prongs relate to achieving supra-competitive prices by exercising either the power to control prices or the power to exclude competition. Krattenmaker et al., supra, note 3. However, their suggestion points to the methods of achieving such power or the manner in which it may be exercised and not to the definition of market power itself.

8 Notes, “Telex vs. IBM: Monopoly Pricing under Section 2 of the Sherman Act” (1975) 84 Yale L. J. 558, at 560.
4.1.3 The Relevant Market

Competition law analysis usually begin with the definition of a relevant market. The delineation of the relevant market is important because it is only in reference to the supply or acquisition of some defined goods or services that a firm's market power can be assessed. Such definition focuses both on the product market and the geographic scope of the market. The test is basically one of substitutability, both in terms of supply and demand of the products in the market. Thus, a market is the arena within which significant substitution in consumption or production occurs. A narrow or a broad definition of a relevant market affects the analysis of a dominant position. If the market is defined too narrowly then almost every firm will have large market shares in its area of operation. If it is defined too broadly, firms with low market shares may possess market power.

Should the relevant market be defined differently in small economies than in large ones? The answer is negative. The crux of the analysis, in small and large economies

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9 The traditional approach assesses four factors (substitutes in consumption, substitutes in production, output of fringe firms and entry of new competitors) to determine whether related markets should be combined with the market in question. Kaplow argues that this approach forces an all-or-nothing framework on an issue that is a matter of degree. He suggests an alternative approach, a direct adjustment approach, in which the initial impression of market power would be adjusted by the degree to which the strength of the four factors deviates from its ordinary level. Louis Kaplow, “The Accuracy of Traditional Market Analysis and a Direct Adjustment Alternative,” (1982) 95 Harv L Rev. 1817.


11 Product markets tend to be more narrowly defined in EC Article 86 cases than in U.S. Sherman Act sec. 2 cases. See Ritter, Braun and Rawlinson, EC Competition Law (Kluwer, 1991) at p. 274-5. For a narrow approach see, for example, the European case of General Motors Continental v. the Commission case 26/75 [1975] ECR 1367, [1976] 1 CMLR 95 (the relevant market was defined as the provision of official approval services for General Motors' cars in Belgium, due to the fact that legal barriers prevented free competition from cars outside Belgium. Such analysis is economically flawed, as it disregards the effects of inter-firm competition on the ability of car dealers to raise the prices of their own cars). New Zealand courts also defined a market in narrow terms in Auckland Regional Authority v. Mutual Rental Cars (Auckland Airport) Ltd. [1987] 2 N.Z.L.R. 647 (The Auckland Regional Authority limited the number of rental vehicle concessions at Auckland airport to two firms. An excluded firm contended violation of the use of dominant position provision. The court defined the market as the Auckland Airport rental-car market, and thus held that the regional authority had a dominant position in the market.)

12 Landes and Posner, supra, note 1, at p. 962. Thus, where market dominance is defined by specified market shares, such as in the Israeli Restrictive Trade Practices Act 1988, it is more important to define the relevant market with extra care. Otherwise, the Act might have a stronger bite than is necessary in order to restrain the use of dominant market power. Australian courts have recognized the interdependence between market definition and the issue of dominance. See, for example, Queensland Wire Industries Pty Ltd. v. BHP Co Ltd. (1989) 167 CLR 177, 178; 83 ALR 577,590; ATPR 40-925.
alike, is the degree of market power in a relevant market once it is defined. Of course, if markets are consistently defined narrowly, the typical market share of a firm with dominant market power will tend to be larger than in broadly defined markets, and vice versa.

Nonetheless, it is important, especially in small economies, to define markets as including current or potential imports, which are real and significant substitutes for domestic products. Given the fact that a small market may only support a small number of domestic firms, imports play an important role in constraining the market power of domestic firms, a power which should be taken into account in analyzing the market power of domestic firms. Otherwise, market shares (and, accordingly, the market

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13 Landes and Posner argue that "the choice [of a narrow or broad market definition] is largely immaterial so long as it is recognized that the market elasticity of demand varies inversely with the breadth of the market. A narrowly defined market is unobjectionable- so long as appropriately less weight is given to market shares computed in such markets." Landes and Posner. ibid, at p. 978.

14 Landes and Posner make the argument that where a foreign producer imports into a local market, all his (actual or potential) production capacity should be included in the relevant market, once he meets some specified conditions (such as requiring that the foreign producer has had non-negligible sales in the market for a continuous period of several years). They reason that if firms can sell significant quantities of the product in a given national market, they are able to sell additional units at no appreciably higher cost simply by diverting sales from one market to the other. This approach, which does not take into account potential importers, will tend to overstate market power in those cases where foreign producers do not sell in the market at present but could do so if prices were even slightly higher. See ibid, at p. 964-972. In addition, as Professor Kaplow has pointed out, the Landes-Posner conclusion depends on the product being homogenous. If products are at all differentiated, only certain classes of consumers will find the foreign products attractive at any given price level, and the Landes-Posner conclusion that all foreign production should be treated domestic sellers' market power cannot be defended. In addition, it ignores the fact that some foreign producers might have lower transportation or distribution costs than other foreign producers. Louis Kaplow, supra, note 9. See also Timothy J. Brennan, "Mistaken Elasticities and Misleading Rules" (1982) 95 Harv. L. Rev. 1849.

The traditional approach to geographical market definition directly examines the significance of transportation costs and tariffs. When these barriers are high, output of foreign firms should presumptively be excluded on the theory that any existing imports can best be explained by product differentiation. See Kaplow, ibid, at p. 1839-41.

The Israeli Tribunal declined to include imports in the relevant market in Appeal 1/89 Taasiot Electro-Himiot (Protarom) Inc., v. the Director, District Court Decisions, 1992 (3) at p. 190. The Director has, however, included imports in the relevant market in Re Request for the Director's waiver for the agreement for the creation of Poligur, in Tova Olshtein (ed.) Hegelim Iskiim, (Tel Aviv: Vaad Mehroz Tel-Aviv-Yafo, 1994) vol. A, p. 108 (the Director allowed a merger between two competing manufacturing companies which held, together, almost 90% of the Israeli market, where he was satisfied that such joint merger was necessary for the Israeli firms to compete effectively with European companies which had begun to import their products into the Israeli market). The Australian courts have included imports in the relevant market. See, for example, Tubemakers of Australia Ltd. [1988] (Tubemakers' market share was calculated as part of the market which included current imports).


15 For a detailed analysis see Chapter 2 of Part I of this thesis.
power) of domestic firms will be systematically exaggerated. Assume, for example, that a domestic firm’s market share of a product is 90%, and importers can easily import substitutable products into the domestic market. If the domestic firm tried to raise the price of its products above the competitive level, importers would enter the market and consumers would substitute toward imported products. Thus, the domestic firm’s market power would be far less than its 90% share would otherwise appear to indicate, because the ability of importers to enter the market implies high supply elasticity. Thus, it is appropriate to define the market to include both domestic producers and potential importers. This will yield a market share below 90% which will be a better (although not necessarily a highly accurate) indicator of the domestic firm’s market power.

4.1.4 The Degree of Market Power
Market power in a relevant market is a matter of degree. It is not a single quantum but rather a spectrum, ranging from the very slight to the very substantial. Competition law should be invoked only in those circumstances where market power is substantial in magnitude and durable, or likely to become so, with the exception of those categories of behavior that are regarded as per se violations. The degree of market power of a firm may be calculated by using the Lerner index, which indicates the proportional derivation of price at the firm’s profit-maximizing output from the firm’s marginal cost at that output. One method to calculate the Lerner index is based upon the residual demand

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16 As elaborated below, this problem can also be solved through supply elasticity estimates. However, given the problems of gathering such data, the market definition approach is arguably a better method to take into account the effect of foreign trade on the market power of domestic producers.

17 This example is an analogy on the one used by Posner and Landes, supra, note 1, at p. 948.


19 Of course, the degree of market power necessary to prove different violations might vary. Strong showing of market power may be required before condemning practices that can often generate efficiencies, or when analyzing practices that are anti-competitive only if certain self-correcting tendencies, presumed to be operating in most markets, fail to work. Yet we may make the presence or absence of market power irrelevant in practices whose sole purpose is to suppress competition. See Krattenmaker et al., supra, note 3, at p. 253. This chapter focuses, however, on the degree of market power necessary as a threshold for a finding of abuse of market power.
elasticity facing the firm. However, it is not likely that there will be a precise estimate of the firm’s residual demand.20

Alternatively, the Lerner index can be calculated by using three factors: market demand elasticity, supply elasticity of competing or fringe firms and the relevant firm’s market share.21 The elasticity of demand signifies the rate of substitution of consumers away from products to other products, at a given price level. The higher the substitutability, the higher the elasticity of demand and the lower the market power of the firm, *ceteris paribus*. Supply elasticity signifies the ease of entry or expansion of current or potential competitors into the market. It is based on the height of entry barriers into the relevant firm’s market. Without entry barriers a firm cannot control prices in the long run no matter how great its current market share, because potential competitors will enter and bid down the price. Supply elasticity can be low for either or both of two reasons. First, there may be some reason why firms are physically incapable of expanding output rapidly, such as economies of scale, the availability of raw materials and legal barriers such as patent trade restrictions, laws and licensing requirements. Second, as elaborated in chapter 1 above, firms may be disinclined to do so for reasons of oligopolistic interdependence. Yet the degree of supply elasticity will rarely be specified with the kind of mathematical neatness and precision that would be required to fold into some kind of overall formula.22 The third factor, market share, defines the share of the allegedly dominant firm in the relevant market. This share is usually calculated based upon share of total production, but it can also be based on other factors such as production capacity. It has been suggested that market power of a firm be computed as follows:

\[ L_i = \frac{S_i}{(E_{dm} + E_{sj}(1-S_i))} \]

where \( L_i \) is the Lerner index of firm \( i \), \( S_i \) is the market share of firm \( i \), \( E_{dm} \) is the market elasticity of demand, and \( E_{sj} \) is the elasticity of supply of competing or fringe firms.23

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21 *Ibid.* This analysis neglects, however, the relationship between market power and the interdependence of large firms in an industry. Accordingly, where the market is not characterized by a single large firm and a competitive fringe but rather by firms that act interdependently, the above formula will understate market power. Janusz A. Ordover, Alan O. Sykes, and Robert D. Willig, “Herfindahl Concentration, Rivalry, and Mergers” (1982) 95 *Harvard L. Rev.* 1857.
In their influential article, "Market Power in Antitrust Cases," Landes and Posner argue that the above formula might not be very useful since it is not likely that there will be precise estimates of elasticity of supply and of demand. Hence, they suggest a somewhat more pragmatic approach which relies on market share as the primary determinant of market power. Information of the firm's market share will normally be available and reasonably accurate. Inferences of market power will be based on a firm's market share on the assumption that the relevant elasticities are not unusually high or low. Where it can be shown that the assumption is false, appropriate adjustments can be made. Thus, for example, where demand is highly inelastic, because there are not even remotely close substitutes for the product in question, a firm's market share will tend to understate the degree of its market power, and it may be argued that a firm has dominant market power notwithstanding the fact that its market share is somewhat less than the usual benchmark. Similarly, where the supply elasticity of the remaining firms is unusually low, a given market share would signify more market power than in the usual case, and vice versa. In the extreme, if barriers to entry are very low, historical market shares have no significance at all.

The market-share-based approach to market power has encountered much criticism. One of the main criticisms points to the fact that this approach might produce highly inaccurate results, especially in differentiated product markets. Since in such markets market definition- and thus market shares in the relevant market- are necessarily based on somewhat arbitrary estimations of market boundaries, the result is necessarily inaccurate. Corrections based on supply and demand elasticities, it is said, are not easily applied. Econometric estimates of demand elasticities, when available, are argued to be

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24 For criticism of the Landes-Posner model see, for example, Richard Schmalensee, "Another Look at Market Power" (1982) 95 Harv. L. Rev. 1789; Kaplow, supra, note 9; Ordover et al., supra, note 20.
26 For such criticism see, for example, Kaplow, supra, note 9. For the value of going beyond market shares to understand the competitive positions of firms and brands in differentiated product industries see, for example, Jonathan B. Baker and Timothy F. Bresnahan, "Estimating the Residual Demand Curve Facing a Single Firm" (1988) 6 Int'l J. of Indus. Org. 283; Jonathan B. Baker and Timothy F. Bresnahan, "The Gains from Merger or Collusion in Product Differentiated Industries" (1985) 33 J. of Industrial Economics 427 (Studies conducted on the U.S. brewing industry during the 1970's showed that although market shares did not strongly distinguish Coors and Pabst, the two firms played distinct competitive roles. Coors faced few competitors while Pabst faced many. Accordingly, Coors had much larger market power than Pabst).
more informative than market shares in determining market power.\textsuperscript{27} Such estimates may not, however, always be available. Moreover, they suffer from some technical limitations.\textsuperscript{28} Other alternative proofs of market power such as excess profits also suffer from severe limitations.\textsuperscript{29} Accordingly, this chapter does not argue for the adoption of the market-share based approach. It does, however, utilize this approach since it is commonly used in most, if not all, jurisdictions.

4.1.5 The Degree of Market Power Necessary to Infer a Dominant Position

A. Theoretical Discussion

The degree of market power necessary for a firm to be said to have a dominant position in its market, i.e. the degree of market power that should be deemed potentially actionable by competition laws in single-firm violations, is of great importance. How much market power is excessive enough to warrant possible intervention under the competition laws is a question of legal policy. Nonetheless, all jurisdictions have adopted high thresholds of market power such as "significant", "dominant" or "monopoly" power.\textsuperscript{30}

Should small economies adopt lower thresholds of dominant market power than larger economies? Where the law uses open terminology which allows the courts to take into account all factors which determine market power (e.g. market share, supply elasticity and demand elasticity), there should be no difference between small and large economies, given that the factors in the equation for calculating market power will denote the different circumstance in such markets.

Nonetheless, in small economies the typical market share which will signify market dominance should be lower than in a large one, since elasticity of supply will usually be lower, given the prevalence of scale economies and oligopolistic interdependence in small economies (assuming no or only a small degree of imports is

\textsuperscript{27} Ibid.
\textsuperscript{29} See, for example, Areeda, Hovenkamp and Solow, supra, note 10, chapter 5B.
\textsuperscript{30} For a discussion of the implications of a relaxed power component see Areeda and Hovenkamp, supra, note 18, at p. 310-1.
possible). In other words, the smaller the market, the higher barriers to entry usually are (lower elasticity of supply), and therefore the lesser the constraints that potential entry places upon a firm that tries to raise price above marginal cost, and the lower the market shares necessary in order to infer dominant market power. One could imagine a sliding scale where the smaller the size of the market, *ceteris paribus*, the lower the market share which is necessary in order to find market power.

The logic behind this argument is that where entry barriers are high, the dominant firm is less constrained in its pricing behavior by potential entrants. For example, where large scale economies exist the dominant firm may be the only firm able to enjoy low production costs, while fringe firms compete with higher production costs products under the price umbrella of the dominant firm or compete with highly differentiated products.\(^{31}\)

Also, firms operating in the market acknowledge their interdependence and are more prone to follow the price leadership of a dominant firm. In addition, for the reasons stated above, in a small market current market shares are a better indicator of the market power of a firm than in a large one.

While market share can serve only as a *prima facie* indicator of market power which should not be taken alone but should also take into account other factors, in general in a small market it may be presumed that due to its small size there will not be many competing firms in the remaining parts of the market. Thus, in small economies, a given market share will usually signify more market power than in a large one, all else equal. Of course, this is true only as a general presumption, recognizing the possibility of adjustments where other factors, such as the elasticity of demand or supply, differ significantly from the typical case.

I suggest, however, a refined approach to a presumption (or even predetermined criteria) of market power based on market structure alone. Presumptions of market power should be based not only on the market share of the allegedly dominant firm in absolute terms but also on such market share relative to the market share of the largest competitors of the allegedly dominant firm. The proposed refinement is necessary especially where

\(^{31}\) This argument can be quite simply proven by using algebraic formulas. Using the Lerner index formula cited in the text above, it is simple to see that when we hold \(L_i\) (the degree of market power) and \(Ed_m\) constant and we vary \(E_s_m\), the higher \(E_s_m\) is, we need a lower \(S_i\) to offset its effect.
the threshold market share necessary for a presumption (or even predetermined criteria) of monopoly power is equal to or lower than 50%. Where two (or possibly even three where the threshold is approximately a third of the market share) firms of equal or almost equal market share compete in the market, it cannot be characterized as single-firm dominance but rather as a duopoly or an oligopoly. In such a market, assuming it comes under the scope of the monopolization provisions, the market power indicator should be adjusted to take into account the effect of interdependence between firms. Exercise of such power will tend to raise prices and thus increase the Lerner index of the dominant firm.\(^{32}\) A very fragmented competitive fringe may also well indicate stronger market power of the dominant firm.

An important issue, raised by Landes and Posner, is whether the degree of market power that should be deemed actionable should depend on the absolute size of the market (total volume of sales). Landes and Posner argue that since in small-sized markets the economic injury (which they perceive to be the deadweight loss) of a dominant firm is small due to the small amount of economic activity over which the deviation in price occurs, then the total social loss is small, and a competition law proceeding is unlikely to be cost-justified. This, they argue, is especially true when the remedy sought involves heavy administrative and disincentive costs. Thus they suggest that competition law proceedings should be initiated mainly in cases where firms have large market shares which signify strong market power. In order to preserve deterrence benefits, competition law authorities should nonetheless occasionally bring suit against a small monopolist, so that other small monopolists will be deterred, even if most cases are brought against large monopolists. This may be translated into an argument for requiring a higher threshold of market power (and, accordingly market shares) in small markets than in large ones.\(^{33}\)

While this is an interesting proposal, it raises several economic as well as non-economic difficulties. First, the proposal does not give much weight, if any, to the effects

\(^{32}\) Schmalensee, *supra*, note 23, at p. 1798. However, as noted earlier, models of oligopolistic behavior do not yield a single economic theory of oligopoly, but are capable of generating a wide range of market equilibria ranging from those that approximate competitive conditions to those which approximate monopolistic conditions, under different market conditions. See, for example, Carl Shapiro, "Theories of Oligopoly Behavior", in *Handbook of Industrial Organization* (Amsterdam: Elsevier Science Publishers, 1989) Vol. I, p. 329.

of monopoly on dynamic efficiency, or to other policy goals, such as distributional goals, where relevant. Second, if, as Landes and Posner assume, deadweight loss is the cost incurred by society from market power, then it is the firm’s sales volume, and not the size of the relevant market, which is the most direct indication of competition law intervention. Third, and more specific to small economies, as argued above the smaller the market, ceteris paribus, the lower the market share which is necessary in order to exert market power. Accordingly, the deadweight loss from a firm with a given market share of a small market will be larger than the deadweight loss from a firm with the same market share in a larger market, ceteris paribus. Thus, lower market shares in a small market will signify higher economic cost to society in a small market than in a large one and may well justify intervention. Fourth, a small economy, suffering from comparative disadvantages resulting from high barriers to entry to many of its markets should be less lenient and more efficient than a large economy in enforcing its competition laws, in order to minimize the economic loss from concentrated market structures. Thus, at most, Landes and Posner’s proposal should be applied to markets which are small relative to other markets within a small economy. Lastly, but less important, such a proposal will be difficult to implement where private parties have rights of action against a dominant firm, rights which are not bounded by the economic benefits of private litigation to society as a whole.

B. A Case-Study of Dominant Position Definitions in Different Jurisdictions

Are the approaches to market power adopted by the competition laws of small and large economies compatible with the above analysis of the degree of market power necessary to establish a dominant position in the market? As noted above, the precise point at which market power becomes substantial is hard to define. That is why most competition laws use “open” terminology, which leaves much discretion to the courts or the competition authorities. The EC and New Zealand’s competition laws require a “dominant position” in the relevant market, The U.S. Sherman Act requires “monopoly power”, the

34 Schmalensee, supra, note 23, at p. 1792.
35 Section 86 of the Treaty of Rome; Section 3(8) of New Zealand’s Commerce Act 1986.
36 Section 2 of the U.S. Sherman Act.
Canadian *Competition Act* uses terms such as "substantial or complete control [of] a class or species of business"\(^{37}\) or "major supplier of a product in a market"\(^{38}\); the Australian *Trade Practices Act* requires "significant market power."\(^{39}\) The Israeli *Trade Restrictive Practices Act* is unique in that it predefines threshold market shares which signify a "significant influence on the market"\(^{40}\).

Nonetheless, most courts usually rely on market shares which persist for some time as a primary indicator of market power, and interpret this data in each case by reference to the qualitative indicia of the market’s elasticity of demand and supply. Market share triggering figures are important since demand and supply elasticities are not easily determinable. Market shares also create administrative convenience. In addition, they signal to market participants, although without precision, which market shares create "safe harbors." Given that our analysis has indicated that the size of the market should influence the typical market share necessary to establish a dominant position, we shall attempt to identify such triggering figures.

Before we present the results of the case study, a word of caution is in place. The degree of market power which suffices to find a dominant position depends, *inter alia*, on the definition of abuse and the economic offenses which come under its scope as well as the severity of the penalties or the nature of the remedies provided. The broader the definition of dominant position (narrower market definition, lower market share), the less severe the duties imposed on the dominant firm would normally be.\(^{41}\) Dominant position should thus not be evaluated out of context. Accordingly, where necessary, the factors which merit a different emphasis in different competition laws will be emphasized.

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\(^{37}\) Section 79 of the Canadian *Competition Act 1985*, which deals with "abuse of dominant position".

\(^{38}\) Section 77(2) of the Canadian *Competition Act 1985*, which deals with exclusive dealing and tied selling.

\(^{39}\) Section 46 Of the Australian *Trade Practices Act*.

\(^{40}\) Section 26 of the Israeli *Trade Restrictive Practices Act 1988*. Although most jurisdictions do not provide predefined market share thresholds for single firm dominance, such thresholds are found in many merger guidelines. It is important to distinguish merger thresholds from dominance thresholds. In a small economy mergers and takeovers may be desirable even though they may lead to highly concentrated markets. The realization of scale economies may offset the potential adverse effects of large-scale mergers. Thus, many small economies have adopted a non-restrictive approach to merger control, with the consequence that the thresholds of market power necessary to prevent mergers are much higher than those adopted in monopolization provisions.

U.S.: “Monopoly Power”

In the U.S., which is a large economy, the monopolization provision (Section 2 of the Sherman Act) does not include more than a brief and general description of a dominant position (“monopolize…”). The development and application of the definition of dominance have been left to the judiciary. Most cases analyze market conditions to determine whether a firm has or has not monopoly power. Market share, while regarded as a most important evidentiary fact, is usually not taken alone to establish market power.

The U.S. Supreme Court has expressly stated that the “relative effect of percentage command of the market varies with the setting in which that factor is placed”. Such factors include, inter alia, the height of barriers to entry into the market, demand elasticity, market fragmentation, abnormal profits, corporate conduct, and historic trend.

Nevertheless, several presumptions for establishing ‘substantial market power’ can be inferred from the case law. In the early case of Alcoa a presumption of monopoly was found where a firm controls at least 90% of the market. Posner and Landes suggest that the 60-70% range is conventionally used in antitrust cases as the threshold for

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43 Milton Handler, Robert Pitofsky, Harvey Goldschmid and Diane Wood, Trade Regulation (Westport, NY: The Foundation Press, Inc.: 1997, rev. ed.) at p. 165. See, for example, United States v. United Shoe Machinery Corp. 110 F. Supp. 295 (D. Mass., 1953), aff’d per curiam, 347 U.S. 521 (1954) (other factors which were considered by the court included the firm’s pricing practices, the relative financial resources of the firm and its competitors, the firm’s learning advantages, the variety of products, and the fact that 90% of the largely static demand was substantially tied to the dominant firm through long term leasing contracts). See also Cargill, Inc. v. Monfort of Colo., Inc., 107 S. Ct. 484, 495 N. 17 (1986)(it is “important to examine barriers to entry into the market, because ‘without barriers to entry it would be presumably impossible to maintain supra-competitive prices for an extended time.’” (quoting Matsushita Waste Management 743 F. 2d 976, 982 (2nd Cir., 1984)); Ball Memorial Hospital Inc. v. Mutual Hospital Insurance, Inc., 784 F. 2d 1325 (7th Cir. 1986)(“The lower the barriers to entry, and the shorter the lags of new entry, the less power existing firms have. When the supply is highly elastic, existing market share does not signify power.” At p. 1335). However, very large market shares have been regarded by some courts to be of significant importance. See for example, Berkey Photo v. Eastman Kodak Co., 603 F. 2d 263, (2nd Cir., 1979) cert. Denied, 444 U.S. 1093 (1980)(the court found that Kodak’s market shares of 95% and 60-67% in respective markets signified that Kodak had “clearly reached the level of monopoly”).
44 In United States v. Aluminum Co. of America (Alcoa), 148 F. 2d. 416 (2nd Cir., 1945) Judge Learned Hand made his famous statement: “We may start with the premise that to have combined ninety percent of the producers of the ingot would have been to ‘monopolize’ the ingot market…” He further stated that even a share as high as 64% may not suffice to assume market power, while control of 33% is not sufficient for a finding of monopoly. Judge Learned Hand relied, basically, on market shares as an indicator of market power. Landes and Posner suggest, however, that Judge Hand might have realized that since he was defining the market narrowly, the market share criterion of monopoly had to be higher than if a broad definition the market had been employed. Landes and Posner, ibid, p. 979.
inferring monopoly power from market share evidence.\(^{45}\) Areeda and Hovenkamp suggest that a showing of a 70-75% market share over a period of at least five years preceding the complaint in a properly defined market protected by sufficient entry barriers is to be considered a presumptive benchmark for dominance in U.S. case law. Such presumption is strengthened or weakened by recent changes in market position.\(^{46}\) Hay suggests that in the absence of special circumstances, a market share below 50% is too low for a firm to have monopoly power.\(^{47}\) However, there are a number of cases where U.S. courts have found such special circumstances to exist.\(^{48}\)

\(^{45}\) Landes and Posner, ibid, at p. 951.

\(^{46}\) Areeda and Hovenkamp, supra, note 18, vol. IIIA, at p. 301.

\(^{47}\) Hay, supra note 5, at p. 226. See also Areeda and Hovenkamp, ibid; Domed Stadium Hotel, Inc. v. Holiday Inns, Inc., 732 F. 2d 480 (5\(^{th}\) Cir., 1984) ("the precise market share a defendant must control, absent supporting evidence of monopoly power before he is guilty of monopolization, remains undefined...Supreme Court cases, as well as cases from this court, suggest that absent special circumstances, a defendant must have a market share of at least fifty percent before he can be guilty of monopolization. Further, undisputed evidence of low market share may make monopolization an impossibility as a matter of law. Dimmit, 679 F. 2d 516, 529. Recent cases by this court hold that market shares of between seventeen and twenty five percent are legally insufficient to uphold a finding of monopolization, at least absent other compelling evidence that the defendant had monopoly power." At p. 489-90). Many courts have, similarly, declined to find monopoly where the firm possessed a market share below 50%. See, for example Cliff Food Stores v. Kroger, Inc. 417 F. 2d 203, 207 n. 2 (5\(^{th}\) Cir., 1969)("something more than 50% of the market is a prerequisite to finding a monopoly."); Times Picayune Publishing Co. v. United States of America, 345 U.S. 594 (1952) 611-2 (firm with 40% market share did not possess dominant position to establish a section 1 tying case); U.S. v. Eastman Kodak Co., 63 F. 3d 95, 109 (2\(^{nd}\) cir. 1995) (36% share of the world film market was insufficient for a finding of market power). For criticism of this case See D. Gifford, "The Damaging Impact of the Eastman Kodak Precedent Upon Product Competition: Antitrust Law in Need of Correction" (1994) 72 Wash, U.L.Q. 1507, 1522 (30% market share probably sufficient to raise in inference of market power of establishing a per se tying violation").

\(^{48}\) A close analysis of U.S. case law reveals that some courts have recognized that in special circumstances low market shares may be sufficient for a finding of market power. See, for example, Digital Equipment v. Uniq Digital Technologies, 73 F. 3d 756, 761 (7\(^{th}\) Cir., 1996)(Judge Easterbrook stated that "30% is not enough to confer substantial market power unless there are high barriers to entry," (emphasis added)); Hardy v. City Optical Inc. 39 F. 3d 765, 767 (7\(^{th}\) Cir., 1994)("30% is the "minimum market share from which the market power required to be shown at the threshold of the tying case can be inferred"); Valley Liquors, Inc. v. Renfield Importers, Ltd., 822 F. 2d 656, 667 (7\(^{th}\) Cir., 1987)("the lowest possible market share legally sufficient to sustain a finding of monopolization is between 17% and 25%"); Ringtown Wilbert Vault Wks v. Schuylkill Mem. Park, 650 F. Supp. 823, 825 (E.D. Pa., 1986)(the court held that a firm with 10% of cemetery lots in the relevant geographic market possessed market power because "land is sufficiently unique to establish the market power element of a per se tying violation"); In a recent case, FTC v. Toys r Us, Docket No. 9278, the FTC held that retailer with as little as 22% market share possessed market power in excluding competitors from buying the same products. The market share necessary for a finding of attempted monopoly was also, in many cases, lower than 50%: Rebel Oil Co., Inc. v. Atlantic Richfield Co., 51 F. 3d 1421, 1438 (9\(^{th}\) Cir., 1995)(44% market share "is sufficient as a matter of law to support a finding of market power" in an attempted monopolization case. Market power was defined to involve the ability to raise prices or restrict output, and not simply to exclude competitors); Domed Stadium Hotel, Inc. v. Holiday Inns, Inc., 732 F. 2d 480, 490 (5\(^{th}\) Cir., 1984) ("a share of less than the fifty percent generally required for actual monopolization may support a claim for attempted
EC: "Dominant Position"

By way of comparison, the degree of market power that suffices to make a firm dominant in the EC is distinctly less than the degree required in U.S. monopolization cases. Article 86 of the Treaty of Rome refers to "dominant position", which has been interpreted in the influential Continental Can decision as "the power to behave independently, which puts [the dominant firms] in a position to act without taking into account their competitors, purchasers and suppliers." The Commission referred to the evidence necessary to establish such position by stating that "[firms are in a dominant] position when, because of their share of the market, or of their share of the market combined with the availability of technical knowledge, raw materials or capital, they have the power to determine prices or control production or distribution of a significant part of the products in question." Subsequent decisions have stressed the extent to which a person is constrained by the conduct of competitors, suppliers, or purchases of goods or services in the market.

EC law does not prescribe predetermined market shares. Rather, the open-ended approach allows the Commission and the European Court of Justice to define each dominant position in accordance to the specific circumstances in the relevant market.

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monopolization if other factors such as concentration of the market, high barriers to entry, consumer demand, strength of competition, or consolidation rend in the market are present); Twin City Sport Service Inc. v. Charles O. Finley & Co., 676 F. 2d 1291, 1300-1, 1309 (9th Cir., 1982)(24% market share plus anti-competitive conduct supported finding of attempted monopolization); McDonald v. Johnson & Johnson, 537 F. Supp. 1282, 1345-6 (D.C. Minn., 1982) vacated on other grounds 722 F. 2d 1370 (8th Cir., 1984)(37% market share sufficient to prove attempted monopoly under the specific market conditions). See also Broadway Delivery Corp. v. United Parcel Service of America, Inc., 651 F. 2d 122 (2nd Cir.), cert. Denied, 454 U.S. 968 (1981)(trial court instruction precluding a finding of monopoly power where defendant's market share was less than 50% was in error but was harmless in the circumstances.) Continental Can, supra, note 7, at D. 27 para 3. See also Michelin (1985) where the concept of "dominant position" has been defined by the European Court of Justice as follows: "a position of economic strength which enables an undertaking to prevent, or at least hinder, effective competition being maintained on the relevant market by giving it power to behave to an appreciable extent independently of its competitors, customers, and ultimately its consumers."

Ibid.


52 See, for example, Tetra Pak I OJ L 272/27 [1990], for example, the Commission, referring to United Brands and the Continental Can decisions (supra, notes 51 and 7 respectively), based its finding of dominance on high market shares (91.8%), high barriers to entry resulting from: technological barriers,
Nonetheless, the European Court has a tendency to regard market share as an important consideration and may, in some cases, regard market share alone as conclusive evidence of dominance. One Commission official noted that in the absence of special circumstances, market shares between 40 and 60% are considered strong evidence of dominance. He cited *Hoffman La Roche* (47-66%), *United Brands* (40-45%), *ECS/Akzo II* (46-50%) and *Sabena* (40-50%). The ECJ, nonetheless, always examines the market shares of other firms in the market, and especially those of the largest competitors of the supposedly dominant firm. Evidence of a large market share relative to those of competitors will be a more reliable indicator of dominance than evidence of market share in absolute terms only. The EC also recognizes narrower markets in geographic and product terms than the U.S.

Although the EC is a large market, the lower thresholds for dominant position may result from the fact that the Treaty of Rome’s fundamental emphasis is on facilitating trade between member states. The promotion of competition and efficiency are important but ancillary objects of the Treaty, which take second place to the interests of market integration. Accordingly, many EC cases place emphasis on the power to exclude competitors and the equality of opportunity for commercial operators in the common market.

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53 *Hoffman La Roche*, supra note 51 ("Although the importance of the market shares may vary from one market to another the view may legitimately be taken that very large market shares are in themselves, and save in exceptional circumstances, evidence of the existence of market power." Para. 41).

54 *Ibid.*. The court observed that the market share of Roche was equal to the aggregate of the shares of its two next largest competitors, and that the market has the features of a narrow oligopolistic market. Para. 51.

55 *Ibid.*. The court observed that its market share of 40-45% of bananas was several times as large as that of its largest rival and it also pointed to some barriers to entry.


59 Tim Frazer, *Monopoly, Competition and the Law: The Regulation of Business Activity in Britain, Europe and America*, (New York, Harvester Wheatsheaf, 2nd ed., 1992), at p. 28. In *Michelin*, supra, note 49 the dominant firm was found to have market share of 57-65%, compared with shares of 4 and 8% of its main competitors. Such market shares constituted “a valid indication of Michelin’s preponderant strength in relation to its competitors.” In *Hoffman La Roche*, supra, note 51, in at least one market the dominant firm had a market share as large as the aggregate share of its two largest competitors.

Australia: "Significant Market Power"

The EC dominance test serves as the basis of both Australian and New Zealand monopolization provisions. Although the Australian Act uses a different threshold than that of the EC ("substantial market power"), Australian decisions closely approximate the common market's case law in their application of the dominance criteria. In 1986 the Trade Practices Revisions Act 1986 lowered its threshold test from "in a position substantially to control a market" to "a substantial degree of power in a market". The explanatory memorandum to the Revision Bill stated that the word substantial is not intended to require the high degree of market power entailed in the earlier test of dominance. It also defined substantial as "considerable or large degree of market power." This definition was approved by the Australian courts in Dowling v. Dalgety Australia Ltd. Section 46(3) of the Act was also amended, to incorporate a lower threshold of market power. The section provided until 1986, following the EC's Re Continental Can Co. decision, that a reference to a corporation in a position of substantial market power "includes a reference to a corporation which, by reason of its share of the market, or its share of the market combined with availability of technical knowledge, raw materials or capital, has the power to determine the price, control the production or distribution of a substantial part of the goods and services in that market." The amended section now provides that in determining market power the court "shall have regard to the extent to which the conduct of the relevant body corporate is constrained by competitors or potential competitors." Accordingly, the ultimate determinant of market power is barriers to entry. The courts have recognized, nonetheless, the importance of market share in determining the degree of market power.

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61 For a discussion of its meaning see S. G.Corones, Australian Practices Reporter (CCH looseleaf) at 3,554.
62 Queensland Wire, supra, note 12, at p. 198. See also Paterson, supra, note 60.
65 Queensland Wire, supra, note 12 ("It is only when for some reason that it is not rational or possible for new entrants to participate in the market that a firm can have market power. There must be barriers to entry" p. 583. "It is the threat of entry of a new firm or a new plant into the market which operates as the ultimate regulator of economic conduct.")
66 ibid ("A large market share may well be evidence of market power... ").
Given the problematic use of market share alone to determine dominant market position, it is not surprising that Australian courts have not indicated what is the minimum market share needed for a firm to be said to have market power. Inference from court decisions, nonetheless, may suggest conclusions based on market share. Such inferences, however, should take into account unusually high or low elasticities of demand or supply. Many Australian cases have dealt with firms with large market shares (85-100%), from which it was easily inferred that the firm possesses market power, when no special circumstances were proven.67 This fact is not surprising, given the typically small size of Australian markets. In another case a 60% market share was large enough for a finding of market power.68 A market share of 7-15% was found to indicate lack of market power.69 However, where special circumstances indicated low elasticity of demand, a one third market share was found to be sufficient to establish significant market power. In Mark Lyons Pty Ltd. v. Bursill Sportsgear Pty Ltd. the defendant was the only supplier of Salomon Alpine Ski Boots. Salomon was a market leader in the field of ski equipment and almost all retail ski shops had to stock Salomon ski boots. The Plaintiff, whose dealership had been terminated, was a Sydney-based ski equipment retailer which operated ski-shops and also organized warehouse sales of ski equipment. The court found that both Salomon and another manufacturer, Nordica, each accounted for over 30% of Australian sales. It was held that a third of the market was sufficient to satisfy the threshold test because Salomon was widely regarded as the market leader in

67 Ibid (defendant’s market share was 97% of the steel produced in Australia and 85% of the country’s steel and steel products); Warman International v. Envirotech Australia Pty Ltd. (1986) ATPR 40-714 (defendant which had 90% of the Australian slurry pump market and 84% of the Australian spare parts market found to enjoy such market power as would bring it within section 46 in the market for spare parts); MacLean and Anor v. Shell Chemicals (Australia) Pty Ltd. (1984) ATPR 40-462 (the relevant market was that for raw material cypermethrin used in the production of an insect-killing chemical product for use on sheep, and the only effective source of supply was through the respondent, which thus had 100% market share).
68 Williams v. Papersave Pty Ltd. (1987) ATPR 40-781, (1987) ATPR 40-818 (Papersave had 60% of the relevant market which was found to be the collection and treatment of waste computer paper in inner Sydney). See also Tubemakers of Australia Ltd. (The relevant market was found to be that for the supply of small diameter thin walled steel pipe and tubing in Australia. Tubemakers market share was estimated to be 67.8%, while its domestic competitors stood at 25.6% and 2%. The remainder of the market was supplied by imports. The Commission found that Tubemakers had market power. Its conclusion was based on its large market share as well as barriers to entry and given the small capacity of the market which may not be sufficiently large for alternative distributors to service the market.)
terms of innovative ideas and because 90% of Australian ski retailers found it necessary to stock Salomon ski boots.\textsuperscript{70}

New Zealand: “Dominant Position”

Section 36 of New Zealand’s \textit{Commerce Act} uses the phrase “dominant position in a market.” The concept of dominance is defined by the statute (section 3(8)) as “a position to exercise a dominant influence over the production, acquisition, supply, or price of goods or services in that market.”\textsuperscript{71} Section 3(8) provides a non-exhaustive list of factors which should be taken into account in determining whether one is in a position to exercise a dominant influence. Paragraph (a) focuses on structural determinants: market share, technical knowledge and access to materials or capital. The genesis of the list can be traced to the \textit{Continental Can} decision. The other paragraphs concern whether the alleged dominant firm faces constraints from the conduct of actual and potential competitors, suppliers and acquirers. The reference to behavioural constraints by competitive pressures is significant, since such constraints may be used to negate an inference of market dominance based on structural factors, for example, large market share. New Zealand case law implies that a market share analysis, while a logical starting point, is not regarded as determining dominance, and entry barrier considerations are important in analyzing market situations.\textsuperscript{72}

The New Zealand definition is arguably somewhat broader than the EC \textit{Continental Can} definition in that the New Zealand test is whether the firm is in a position to \textit{exercise dominant influence} over the production, acquisition, supply or price

\begin{footnotes}
\textsuperscript{70} (1987) A.T.P.R. 40-808.
\textsuperscript{71} As Hay points out, this definition is both circular and confusing. To say that a dominant position is one in which a person has dominance influence hardly advances the argument. Hay argues that a more direct way of defining market dominance “would be to define it as a situation in which a person is not significantly constrained by competitors, potential competitors, suppliers, or purchasers and then to observe that this will depend in part on the person’s market share.” Hay, \textit{supra}, note 5, at p. 227, footnote 34.
\textsuperscript{72} See \textit{Re Magnum Corp Ltd. and Dominion Breweries Ltd.} (1987) 1 NZBLC (Com) 104,073 (“While it is understandable that the presumption of dominance increases as market share rises, it is the cumulative impact of various factors that is important in determining whether or not a dominant position would be acquired or strengthened” p. 104, 089). See also \textit{Telecom Corp of NZ Ltd. v. Commission} [1992] 3 NZLR 429; \textit{Annotated Commerce Act} (Vol. I, rev’d Jan 1997) CA3.25-6; \textit{Port Nelson Ltd. v. Commission} (1996) 7 TCLR 217 (CA)(market power analysis requires “a dynamic analysis... of the market, its structure, the concentration of participants, their behavior and that expected of potential entrants, the nature of activities encompassed and general circumstances of supply to, and by, the market.”)
\end{footnotes}
of the goods or services" in a market, whereas the Continental Can test focuses on "the power to determine prices or to control production or distribution for a significant part of the goods in question." However, in economic terms the differences between the two definitions do not seem significant.\(^{73}\) The relevant legislative history seems to suggest that dominance was intended to signal a higher threshold of market power than that used in Australia. Accordingly, it should require a higher market share as the benchmark for assessing dominance (assuming the other factors such as elasticity of supply or demand apply more or less equally under either statute).\(^{74}\)

The New Zealand courts have chosen to follow, since 1992, a rigorous approach to market dominance. Prior to the 1992 Telecom case, dominance was interpreted in accordance with the economic principles set out in EC decisions.\(^{75}\) However, in Telecom the Court of Appeal adopted a dictionary definition of dominance. It emphasized that the dominant influence test sets a more rigorous threshold than previously had been the case. The Court said that it was not prepared to read "dominant" as meaning "substantial market power."\(^{76}\) In so doing, it arguably reversed a decision rendered a year previously in Electric Corp v. Goetherm Energy where it seems to have been prepared to read dominant in that way.\(^{77}\) The more recent Port Nelson decision\(^{78}\) has added confusion. The court did not consider its Telecom decision to be at variance with previous case law. It emphasized that dominance was derived from article 86 of the Treaty of Rome, and defined the threshold required by the concept of dominance as "not one that is so controlling that it is impenetrable."\(^{79}\) Such formulations introduce confusion into the definition of dominance.


\(^{74}\) Hay, supra, note 5, at p. 227-9.

\(^{75}\) See, for example, ARA V. Mutual Rental Cars (Auckland Airport) Ltd. [1987] 2 NZLR 647, 679; NZ Magic Millions Ltd. v. Wrightson Bloodstock Ltd. [1990] 1 NZLR 731, 754-5. See also Paterson, supra, note 60, at p. 271-5.

\(^{76}\) Telecom, supra, note 72.

\(^{77}\) [1992] 2 NZLR 641 at P. 648 (CA).

\(^{78}\) Port Nelson, supra, note 71.

\(^{79}\) Ibid, at p. 242.
Arguably, the New Zealand threshold for dominance is higher than that used in Australia as well as that used in the EC. 80 This high threshold is not justified by the size of the market, given that New Zealand markets are typically smaller than those of Australia, and are much smaller than those in the EC. Moreover, as will be elaborated below, the New Zealand Commerce Act incorporates an authorization process under which firms that originally come under the scope of its monopolization provision can be exempted from the application of such provisions if they comply with the conditions set forth in the Act. 81 This process enables the Commerce Commission to resolve issues ad hoc when the dominance-test net is cast too broadly, and thus mitigates some of the costs of an over-broad dominance test. Arguably, New Zealand’s rigorous and restrictive dominance test is a result of the “dictionary approach” to dominance adopted by the Court of Appeal, which unfortunately serves as a good example of the pitfalls of using “open” terminology for dominance to be interpreted by judges with little or no economic training.

Canada: “Control of Class or Species of Business”

Sections 78-9 of the Canadian Competition Act, entitled “abuse of dominant position,” adopt the term “control of a class or species of business” as the threshold for market power. “Class or species of business” was equated by the Competition Tribunal with market. “Control” was found by the Competition Tribunal to be synonymous with

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80 Not many New Zealand cases have, however, tested this proposition. See, for example, Auckland Regional Authority v. Mutual Rental Cars (Auckland Airport) Ltd. [1987] 2 NZLR 647 (the market was defined in narrow terms as the Auckland airport rental car market in which Auckland Regional Authority had 100% market share); Tru Tone Ltd. v. Festival Records Retail Marketing Ltd. (1988) 2 NZBLC 103,081 (The High Court and the Court of Appeal rejected an appeal to define a single-product market as including each album that gets onto the popular music charts. The Court saw the albums that displaced that album at the chart ratings as clear substitutes for the album in question. Thus, no market power was found); Telecom, supra, note 53 (Telecom was found by the majority of the Court of Appeal to have a dominant position in the market for mobile market, notwithstanding the fact that two more firms could enter the market, given its current position as a sole supplier in the market and its monopoly in the local telephone network); Port Nelson, ibid (Port Nelson had two powerful tugs. Although the defendant was able to get access to small tugs on an ad hoc basis, Port Nelson was found to have a dominant position in the market for tugboats. The Court reasoned that the entry of small tugs “could not be regarded as reflecting a commercially evaluated competitive entry into the particular market-rather it was perceived as a short-term expedient to meet what was believed to be a temporary and unlawful obstruction to the proposed pilotage business.” The Court’s decision can be interpreted as finding very low cross-elasticity between large and small tugs (low elasticity of demand) and thus Port Nelson had 100% or a close figure of the market share).

81 Section 27 of the New Zealand Commerce Act.
“market power,” which the Tribunal has indicated is generally accepted to mean an ability to set prices above competitive levels for a significant period of time. These formulations do not illuminate, however, the degree of market power which is necessary for a finding of a dominant position. With regard to the evidence necessary to establish “control”, the Tribunal stated that “one must ordinarily look to indicators of market power such as market share and entry barriers” and that “where the evidence does not allow the definition [of market power] to be applied directly, structural and other variables that can provide relevant information are used as proxies.” The Tribunal acknowledged the use of market share as a prima facie indicator of market power, although other considerations—such as the number of competitors in the market and their market shares, excess capacity and how easily a new firm could establish itself as a competitor—must be taken into account.

The four cases dealing with abuse of dominant position to date are also not illuminating with regard to the limits of “control,” given that all cases that came before the Tribunal involved firms with very high market shares and findings of high barriers to entry. In Nielsen, for example, the Tribunal found that “as a sole supplier of scanner data tracking services, Nielsen had prima facie market power, or control, in the market, absent some evidence that there were no barriers to entry.” The Tribunal identified three conditions that, if present, might have limited Nielsen’s market power. These were multiple suppliers, a single purchaser or a situation where the purchasers could have integrated backwards and provided their own supply. As none of these conditions were met, Nielsen was found to be “in control” of the market. In Nutrasweet, the alleged monopolist had 95% of the Canadian market and entry barriers were high. In Laidlaw

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83 Nutrasweet, ibid, at p. 28.

84 Nielsen, supra, note 81, at p. 254.

85 Nielsen, ibid (“A prima facie determination of whether a firm likely has market power can be made by considering its market share. If the share is very large, the firm will likely have market power although, of course, other considerations must be taken into account”); Laidlaw, supra, note 81, at p. 325.

86 Ibid, at p. 255.

87 Ibid.

88 Nutrasweet, supra, note 82.
the defendant's market share was in excess of 87% of its markets. While there was evidence of some competitor excess capacity and very low entry barriers, the Tribunal found that Laidlaw's practice of long-term contracts had created an artificial entry barrier into the market. High market shares and high barriers to entry were also found in the recent Tele-Direct case.\textsuperscript{89} It is thus hard to base any conclusions regarding the degree of market power necessary to establish a dominant position on existing Canadian case-law.

Although neither the Canadian Act nor its application by the courts illuminate the threshold issue, some guidance is provided by the Predatory Pricing Guidelines. Such guidelines provide that for a finding of predatory pricing, which is a violation of the abuse of dominance provision as well as an independent criminal offense, a firm must possess at least a 35% market share.\textsuperscript{90} This creates a "safe harbor" for firms with lower market shares from findings of predatory pricing behavior.

It should also be noted that Canada has a stand-alone exclusive dealing and tied selling provision which requires, as one of its conditions, a finding that these practices were engaged in "by a major supplier of a product in the market."\textsuperscript{91} This threshold seem much lower than the "control" threshold necessary for the abuse of dominance provision.

**Israel: Predefined Market Shares**

Israeli competition law is unique in that its definition of market dominance is based on predefined market shares. Section 26 of the Israeli Trade Restrictive Practices Act 1988 contains three alternative definitions for monopoly, two of which are relevant to single firm dominance. Any person, firm, or other legal entity, which satisfies one or more of the following criterions, is legally considered a monopoly:

A. Control of more than 50% of the relevant market;\textsuperscript{92}

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\textsuperscript{89} Canada (Director of Investigation and Research) v. Tele-Direct (Publications) Inc. and Tele-Direct (Services) Inc., CT-94/3 (1997) C.P.R. (3d) 1(Comp. Trib.).

\textsuperscript{90} The Director of Investigation and Research, Predatory Pricing Guidelines (1992). A similar market share threshold is found in the Director's Merger Guidelines, supra, note 6. However, as elaborated supra, such threshold is not indicative of the threshold that should be used in abuse of dominance cases.

\textsuperscript{91} Section 77(2) of the Canadian Competition Act 1986.

\textsuperscript{92} Para. 26(A) of the Israeli Trade Restrictive Practices Act 1988.}

B. Control of less than 50% of a relevant market, where the Minister of Commerce has predefined a lower share in such market which is sufficient for a finding of significant influence in that market. According to the law, the Minister of Commerce has the authority to create an irrebuttable presumption that control of more than 50% of the relevant market share is a monopoly. To prove dominance in such cases, the Minister of Commerce must first define the relevant market, calculate the firm’s market share in that market, and then decide whether it is large enough to support a finding of dominant power. Other evidence is not admissible to refute or reinforce the reference from market shares. Why has the Israeli legislator chosen the 50% as the appropriate benchmark? The explanatory memorandum to the Act stated that “experience has shown that market share of at least 50% signals control of the Israeli market.” In special cases, however, the Minister of Commerce may reduce this market share threshold for specific industries. For example, in the gas market the Minister lowered the benchmark from 50% to 30%, where due to historical reasons three almost identical firms operated in the market. In determining the significant influence of a firm in a relevant market, the Minister will likely take into account the following factors: the concentration of the market; entry barriers; profitability levels of firm operating in the market; historic inclination of market concentration; possibility of import competition; and the conduct of the firm in question.

Once a firm is found to hold a monopoly position in the market, the Israeli Trade Restrictive Practices Director (hereinafter: the Director”) may declare it a monopoly. The declaration is published in public records which are open to the public, and the firm declared a monopoly is informed of such declaration. The declaration may then be used

93 Para. 26(C) of the Israeli Trade Restrictive Practices Act 1988.
95 See Competition Law Decree (declaration of a monopoly in the gas market), 1982, K.T. 1339. Another attempt by the Director to convince the Minister of Commerce to declare a monopoly where a firm possessed less than 50% of the market share, has failed. See the Director’s suggestion to the Minister of Commerce in Re Mifalei Plada Inc., in Hegelim Iskiiim, supra, note 14, vol. 1, at p. 275 (the Director suggested that the Minister declare a monopoly where the dominant firm possessed only 45% of the market share). The Minister did not adopt this suggestion.
96 Mifalei Plada Inc., ibid.
97 Section 26 of the Israeli Trade Restrictive Practices Act 1988. Examples of declared monopolies include the following: Nesher Israeli Cement Manufacturers which controls approximately 95% of the cement market; Fenizia Glass Manufacturers Ltd, which is the only manufacturer of glass containers in Israel; Taman Paper Industries Ltd. Which holds a monopoly in manufacturing of paper bags.
as a rebuttable presumption in any subsequent legal proceedings against the monopolist.98 Once a firm is declared a monopoly it is subject to the regulatory powers of the Director which is empowered to subject its contracts to regulation by a special contracts court and require its products to meet specified standards.99 The Competition Tribunal may regulate other aspects of its conduct, such as pricing and trade conditions, if the conditions set forth in the Act are met.100 In addition, a finding of monopoly is necessary precondition for review under the abuse of dominance provisions.

The Israeli approach has several identifiable advantages. A predefined market share coupled with the Director’s declaration of monopoly create clarity and predictability. Consumers, enforcement agencies, market participants and the dominant firm are informed of the fact that the firm is considered a legal monopoly and thus is more prone to monopoly behavior and is subject to the prohibitions contained in the Act regarding the conduct of monopolies. Seen from another perspective, the predefined market share creates a “safe harbor” for firms from the application of the abuse of dominance provisions as well as from the regulatory powers of the Director. Uncertain definitions, on the other hand, may lead firms to restrict rivalry more than is socially desirable in an effort to ensure that they avoid liability.101 Over-compliance may be costly, since it leads to reductions in consumer welfare as firms abstain from some competitive initiatives. Such welfare losses take the form of higher prices and reduced output and the operation of inefficient firms.

Second, clear and calculable static market share thresholds do not leave much room for discretion by the courts or the competition authorities, which might, if having to define “open” terminology of dominance, define it considerably more broadly or narrowly than the legislature obviously intended. Many judges do not possess ex officio the economic training necessary in order to make sound judgements on the degree of

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98 Para. 43(E) and 26(A) of the Israeli Trade Restriuctive Practices Act 1988. A firm wishing to rebut the Director’s declaration should prove that its market share is below 50%, and thus the Director’s findings were factually wrong.
99 For an extended analysis of such powers see section 4.2 below.
100 Ibid.
market power, and judicial proceedings do not necessarily equip judges with all the facts necessary in order to make such judgments.

Third, in addition to minimizing demands on the competence of the courts, a clear and predictable rule also avoids institutional problems inherent in judicial rule-making, which include the following: Courts have virtually no control over the selection of issues for litigation, which can discourage the creation of efficient rules because the disputes that are litigated are not randomly selected.\textsuperscript{102} Courts are naturally focused on the facts of a specific case and the need to provide the litigants with a remedy. Because of this, and because courts rely for information upon the parties, courts may lack knowledge of the implications of their rule. Until rules develop through the process of litigation compliance costs are likely to be high.\textsuperscript{103} Moreover, it is argued that the adversary process is not an efficient vehicle to determine complex issues.\textsuperscript{104}

Fourth, monopoly power is easily inferred from data which is, in most cases, readily available. No lengthy proceedings or economic analysis are necessary in order to determine a dominant market position. Consequently, litigation costs (in the form of both judicial and legal resources required to solve complex litigation) are reduced.

An approach to market dominance which is based solely on market shares has, nonetheless, important pitfalls. First, since market share is only one of several factors that determine market power, inferences of power from share alone can be misleading.\textsuperscript{105} On the one hand, a firm might have a large market share without enjoying significant market power. Take, for example, a case where only one firm operates in the market but entry barriers are low and its potential competitors may easily enter the market, and once the

\textsuperscript{102} George Priest, "Selective Characteristics of Litigation" (1980) 9 J. Legal Stud. 399.

\textsuperscript{103} Kaplow argues that courts rarely display sensitivity towards the community's need for early development of precedents to reduce compliance costs. Accordingly, the opportunity to create a rule may be ignored, or the rule may be narrowly framed. Louis Kaplow, "Rules Versus Standards: An Economic Analysis" (1992) 42 Duke L. J. 557.

\textsuperscript{104} Neil Campbell, Husdon Janisch and Michael J. Trebilcock, "Rethinking the Role of the Competition Tribunal" (1997) Canadian Bar Review.

\textsuperscript{105} Landes and Posner, supra, note 1, at p. 947. This was also recognized in U.S. case-law. See, for example, MCI Communications Corp v. American Telephone and Telegraph Co., 708 F. 2d 1081 (7th Cir) cert denied, 104 S. Ct. 234 (1983)(the application of a market share analysis to demonstrate monopoly power may lead to incorrect conclusions, especially in regulated industries).
price goes up, they will enter the market.\textsuperscript{106} It might also be the case that even if the market can support only one firm but entry barriers are low, then competition for the market regulates the level of prices that can be set by the firm.\textsuperscript{107} Thus, exclusive and uncritical focus on market share data tends to produce an exaggerated impression of market power. In other cases, however, it might create an underestimation of market power. Suppose a firm has only 40% of a market, but demand is highly inelastic, the other firms in the market are price followers, and the elasticity of supply of the competitive fringe is low. In these circumstances, although the firm’s market share is quite low, it has in fact significant market power.\textsuperscript{108}

Second, a firm with market power might price its products at a high level, just sufficient to reduce its market share below the benchmark, possibly to avoid being labeled a monopolist (the “cellophane fallacy”).\textsuperscript{109} Such pricing creates a deadweight loss, additional to that resulting from the regular pricing tactics of a monopolist. In addition, if the other firms in the market followed the same pricing policy, the result would be a price level higher than the previous monopoly level, and with worse output effects, especially since inefficient entrants would be attracted to the market by the price umbrella held over their heads by the existing firms.

Third, a market power definition which is based on market shares alone should capture all or most of the cases that exhibit dominance. Thus, it should be based on the

\textsuperscript{106} At the extreme, the contestability theory shows that even a firm with 100% market share may have no ability to raise price or collect profits under certain specified circumstances. W. Baumol, J. Pansar and R. Willig, Contestable Markets (1982).

\textsuperscript{107} For an argument that where there is competition for the market shares provide an even weaker than usual indication of the degree of market power see, for example, Bill Bishop and Simon Bishop, “When Two is enough” (1996) 1 ECLR 3.

\textsuperscript{108} \textit{Ibid}, at p. 950. See the EC case of Tetra Pak, supra, note 52 (there the firm’s market shares (albeit significantly high-91.8\% and 89.1\% in its markets) was said to underestimate its strength, since high barriers to entry existed in the market. These entry barriers were the result of the fact that Tetra Pak possessed certain technical advantages and the fact that consumers, even when given a free choice, preferred a bundled product.

\textsuperscript{109} This fallacy was first articulated by Donald F. Turner in his seminal article “Antitrust policy and the Cellophane Case” (1956) 70 Harv. L. Rev. 281. The fallacy is based on the case of United States v. E. I. Du Pont de Nemours 351 U.S., 377 (1956). There, the Court found that at existing prices du Pont was competing actively with other flexible packaging material firms. It then concluded that both were in the same market and subsequently ruled that du Pont did not have market power in this market. The fallacy lies in the fact that a monopolist would continue to raise its prices until further price increase was restrained by competition from substitute products. Thus, the fact that competition from other packaging materials restrained further price increases does not necessarily signify the competitive price for cellophane, but could instead have been the monopoly price. See Krattenmaker et al., supra, note 3, at p. 256.
lowest denominator. However, in many cases elasticities differ significantly from the typical elasticities, thus the definition is too expansive. Such inflexible market dominance approach can distort the conduct of firms. Where the net is cast too broadly firms may refrain from engaging in efficient business moves where such moves would result in high market shares. Even if no price or conduct regulation is eventually imposed, the mere fact that a firm is subject to special regulation may alter the incentives of investors to invest in it, and may involve high avoidance costs on the part of the firm in order to rebut the presumption that the firm has monopoly power which it can abuse.

In the Israeli context it might be argued that the Director may use his declaratory powers to regulate only these firms that are likely to possess market power as well as a large market share. However, as several district courts have decided, a declaration is not constitutive. Thus, a firm may be a legal monopoly although the Director did not declare it as such.

Given the pitfalls of an approach which is based solely on market shares, on the one hand, and the paucity of quantitative data regarding elasticity of supply and demand in a given market, a better approach would use market share benchmarks as merely presumptive evidence of market power, which can be rebutted by bringing other evidence, such as the height of barriers to entry and demand substitutability. In other words, the defendant should bear the burden of rebutting an inference of market power based on market share. Another possible solution to the inflexible nature of a market-share-only approach to market power is to use “guesstimates” of elasticities in defining the relevant market in the first place. Under this approach the adjustments for elasticities come not after a market share is calculated, but when the market is defined. Israeli courts have not adopted this approach, however.

It is noteworthy that the United Kingdom Fair Trading Act 1973 which provides the power to regulate “monopoly situations” also adopts a market-structure-based

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110 T.A. 88/93, Hm. 778/93 (Jerusalem) Tower Air v. Sherutei Teufa, in Hahegbelim Haiskiim, supra, note 14, vol. II; HP 189/90 (Tel-Aviv) Haaretz v. SPB (not published). However, it is unclear what the Supreme Court should decide, once this issue will be dealt by it, given that the tests for finding a monopoly may in some cases be unclear and given that a monopoly may be subject to criminal penalties.

111 Landes and Posner, supra, note 1.

112 See discussion supra.
section of the Act state that a monopoly situation exists, inter alia, where at least 25% of the U.K. supply of a certain product are supplied to, or by, one person or members of one group of interconnected bodies corporate (shared monopoly). This definition is directed at market share only and takes no account of other market conditions. It is a mechanistic process requiring only sufficient market share data for its completion. The 25% figure is an arbitrary one. In the preceding monopoly legislation the market share required was one third. The retention of the one third figure would have made very little difference to the effect of legislation. Virtually all monopoly situations found to exist by the MMC have involved a market share which would have satisfied the one third threshold. However, unlike Israel, the fact that market shares do not always indicate market power is mitigated by the fact that private parties do not have private rights of action against the monopolist and that the Director General is given broad discretion in selecting which monopolies to investigate. In deciding whether to issue an investigation, the Director General takes into account other features which may indicate if the firm is, in fact, enjoying market power, such as import penetration, price and profit levels, and market conduct.114

A clear and easy-to-apply threshold is also used in many other jurisdictions where a dominant firm must take some positive steps (as distinguished from the avoidance of actions such as refusing to deal or predatory pricing). In Norway, for example, dominant domestic enterprises must submit a report of their prices to the Price Directorate. This requirement applies, inter alia, to "enterprises which produce or distribute, individually or together with affiliates, at least one quarter of the total inland production or distribution of a commodity."115 Here, the market share threshold serves to clarify, to the extent possible, which firms have to comply with the requirement, in order to reduce the risks of firms which do not want to break the law by not meeting the requirement. A clear threshold also reduces the costs of over-inclusiveness and under-inclusiveness. Given that

113 Additional jurisdictions which adopted a market-share-based definition of dominance include Malta and Austria. The Maltese Competition Act 1995 defines dominant position as control over 40% of the market. Although the law allows for market analysis proof that a lower market share is sufficient for a finding of dominance, the 40% market share is an irrebuttable presumption where one would have liked to prove the opposite. In Austria, a market dominating position is defined in the law in terms of fixed supply shares. An enterprise is considered market dominating if its share of the supply of the domestic market
114 This paragraph builds, heavily, on Frazer, supra, note 59, at p. 23-4.
115 Section 34 of the Norwegian Act on Control of Prices, Profits, and Restraints of Competition.
firms have to determine whether or not they are in a dominant position (assuming there is no pre-ruling on this matter), some firms which were not intended to come under the scope of the Act would prefer to comply with its requirements in order to reduce their risk of non-compliance. Such conduct is more costly than compliance with anti-competitive conduct rules, since there usually is no social cost involved in deterring the anti-competitive conduct of firms which lack market power, while compliance may be costly if a firm takes costly positive actions to meet legal requirements not intended for it that do not create any social benefit.

4.1.6 Conclusion
The legal concept of monopoly is not restricted to the pure case of one firm controlling 100 percent of the market, but may include a dominant firm facing a fringe of smaller competitors or even one smaller competitor. The important factor, which all competition laws strive to formulate, is the existence of power to raise prices above the competitive level for a significant period of time.

There is no correct formulation of market dominance. Such formulation depends, *inter alia*, on the definition of abuse and the economic offenses which come under the scope of the competition law as well as the severity of the penalties or the nature of the remedies provided. Thus, no specific dominant market power definition should be preferred in all cases. Nonetheless, our analysis points to differences between large and small markets. In a small economy lower market shares can imply larger market power than in a larger market, all else equal. Also, in a small market current market shares are a better indicator of the market power of a firm than in large ones.

As table 4.1 indicates, not all competition laws of small economies seem, however, to take these differences into account. While the Australian legislature has recently lowered the threshold for dominance and the Israeli law predefines the 50% market share as sufficient to establish market power, the New Zealand case law has adopted a rigid and rigorous test for dominance. Canadian case law is still unclear as to the scope of its provisions.
<table>
<thead>
<tr>
<th>Jurisdiction*</th>
<th>Dominant position Definition</th>
<th>Market power Threshold</th>
<th>Role of threshold-Mandatory or Suggestive</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.A.</td>
<td>Monopoly Power</td>
<td>Usually 70-75%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rarely below 50%</td>
<td></td>
</tr>
<tr>
<td>EC</td>
<td>Dominant position</td>
<td>40-60%</td>
<td>S</td>
</tr>
<tr>
<td>Britain</td>
<td>Monopoly</td>
<td>25%</td>
<td>M but much flexibility in process</td>
</tr>
<tr>
<td>Canada</td>
<td>Substantial control</td>
<td>87% high enough.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Predatory pricing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>guidelines-35%</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>Significant market power</td>
<td>60% large enough.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7-15% too low</td>
<td></td>
</tr>
<tr>
<td>New Zealand</td>
<td>Dominant position</td>
<td>Higher than in</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Australia and the EC</td>
<td></td>
</tr>
<tr>
<td>Israel</td>
<td>Significant influence on the</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>market</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malta</td>
<td>Dominant position</td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>Cyprus</td>
<td>Dominant position</td>
<td>Follow the EC</td>
<td>S</td>
</tr>
</tbody>
</table>

*Jurisdictions are listed by size order

Table 4.1: Market Power Thresholds Regulatory measures in different jurisdictions

It is interesting to note that all small jurisdictions surveyed above (Canada, Australia, New Zealand and Israel) have amended their monopolization provisions since 1985. This may signify the realization of the importance of effective monopolization provisions to small economies. It may also signify that the law in this area is still in its formative stages.

Market power analysis begins at a point where the monopolist has acquired market power; it does not address directly the question of how it acquired it. But the underlying assumption is that the monopolist’s eventual objective will be to use its market power to charge higher prices. This section focused on the issue of the degree of market power which is characterized as monopoly power in the legal sense. The next section analyses the regulation of mere monopoly. Section three focuses on the types of conduct, engaged in by a dominant firm, which are deemed by competition laws to be anti-competitive or that are very costly to society.
It should be noted that some jurisdictions also prohibit the establishment or acquisition of market power through anti-competitive conduct. In such cases, market power is not a necessary threshold. Rather, the market power test is used to establish the success or the probability of success of the exclusionary strategy. Nonetheless, as Krattenmaker et al. argue, in such cases market share has an independent significance, as it might indicate stronger incentives to engage in exclusionary conduct. The greater the disparity in market shares between the firm seeking to raise its rival’s costs and the rivals’ market shares, the greater the firm’s anticipated reward from achieving a higher price for its output. Hence, such a firm would be willing to spend more in attempting to exclude rivals to gain power over price. It follows that, in evaluating an excluding firm’s ability to outbid its rivals for the right to exclude them, the excluding firm’s relative market share usually provides a helpful gauge. In addition, high market shares might provide useful information about the ability of firms to engage in successful exclusionary practices. For example, it might signify the relative bargaining power of the alleged monopolist over input suppliers in bidding for exclusionary rights.

4.2 Regulation of Mere Monopoly

4.2.1 Introduction
Continued dominance of an industry by a single firm that has obtained and maintained its monopoly position by lawful means (“mere monopoly”) has long posed difficult questions for competition law. Single firm dominance, whatever its origin, commonly results in economic as well as non-economic evils. Such evils include, but are not limited to, allocative inefficiency resulting from monopoly pricing and output decisions, the

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116 As does the U.S. Sherman Act. Article 86 of the Treaty of Rome, however, requires dominance as a prerequisite of illegal conduct. Yet, further strengthening of such position may be an abuse. See, for example, Tetra Pak I, supra, note 52 (“The strengthening of the position of an undertaking may be an abuse and prohibited under Article 86 of the Treaty regardless of the means and procedures by which it was achieved if it has the effect [of damaging consumers directly or indirectly, if there is no objective justification for its actions” Ground 46).
117 Krattenmaker et al., supra, note 3, at p. 255.
118 Ibid, at p. 259.
119 The monopolist’s power over price is inherent in the definition of dominance, given that market power is measured by the extent to which price can be elevated above the competitive level. New Zealand’s Court of Appeal Telecom decision was highly criticized for not acknowledging the economic incentives of a
potential for productive inefficiency, limited product selection, and the costs of rent-seeking behavior. Large firms may also be able to exert political influence on legislatures beyond their absolute size. These costs do not necessarily flow from, or are accompanied by, exclusionary or predatory conduct and thus cannot be reached by conventional conduct-based regulation. Rather, the monopolist's decisions that lack an anti-competitive element are in essence identical to those of firms operating in a competitive industry. For example, all firms set price and output at the profit maximizing level. In a monopoly situation these prices are above marginal cost and thus affect economic efficiency. But such monopoly pricing is simply a rational exploitation of the profit potential of current market structure, obtained and maintained lawfully. As noted in Chapter 1 above, a large percentage of firms in small economies have market power.

Accordingly, one of the most important debates regarding monopolized markets involves the regulation of mere monopoly per se, that is, without need of proof of anti-competitive conduct or intent. Instead, the law is triggered by predetermined market structure factors such as the size and the market share of the dominant firm or by firm performance variables. The premise of "no fault" regulatory propositions is that there is no wrongdoing worthy of condemnation, but that the government is acting merely to correct a socially costly market imperfection. The focus is on the harm to consumers rather than to competition. Nonetheless, it makes no economic sense to regulate mere monopoly unless one can be sure that such regulation would not alter socially desirable behavior of firms or would be too costly. The weight of the various arguments for and

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120 For an extended overview of these costs see Chapter 1 supra.
121 As will be elaborated below, some jurisdictions treat certain forms of monopoly pricing, output and other trade terms as anti-competitive conduct.
122 Economic theory provides several models of pricing strategy for the profit-maximizing monopoly firm. These include umbrella, limit pricing and credible threat pricing. The actual strategy followed by the dominant firm will depend, inter alia, on the structural characteristics of a given market such as the height of barriers to entry into the market, and may combine elements from all three models. This chapter focuses on umbrella pricing while the next chapter deals with alternative pricing strategies.
123 Donald Turner raised this argument with regard to oligopolistic markets. See Donald F. Turner, "The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusal to Deal" (1962) 75 Harvard Law Review 655, at p. 666.
124 Similar debates and dilemmas arise in oligopolistic markets, in which firms are more prone to engage in collusive conduct than under a competitive market structure. See Chapter 6 infra.
against such regulation eventually depends on the relative efficiency of alternative arrangements, such as leaving the regulation of monopoly to market forces. The considerations and trade-offs involved in mere monopoly regulation are reviewed in this chapter.

Regulation of mere monopoly, while attempting to solve the problems caused by market structure, has some serious drawbacks. The most important drawbacks involve an unfavorable effect on the dynamic incentives of firms to innovate and to engage in competition that could eventually lead to single-firm dominance, and the potential inefficiency of a court-ordered remedy. Two main remedial alternatives involve structural solutions in the form of break-up of the monopoly into smaller units which would compete in the market, and the regulation of monopoly pricing and other trade terms. These remedies are substitutes rather than complements; the efficacy of one affects, inversely, the need for the other. Proponents of the market restructuring solution point to the inefficiency of market forces to erode persistent market power. Opponents base their objections *inter alia* on the inability of the courts to break-up firms economically and efficiently. Monopoly regulation, while dealing with some of the most recognized evils of monopoly, is a highly problematic solution, given the practical and technical problems involved in its application. Moreover, in interfering in the market process regulation also distorts the price signals in the market which are essential to the effective functioning of the market’s self-regulating mechanism.

In some jurisdictions certain trade conditions, such as monopoly pricing, are treated as anti-competitive. The difference between such a policy and a "no fault" policy is that under the latter there is no wrongdoing worthy of condemnation. By contrast, under the former policy certain types of monopoly conduct are assumed to be anti-competitive, mainly due to their effect on consumers rather than on competitors. The considerations involved in conduct regulation under abuse of dominant position provisions are similar, in many respects, to the ones involved in structure-based rules and are also surveyed in this chapter.

The size of the market influences the approach that should be taken towards the regulation of mere monopoly. As this chapter shows, small economies should consider regulating monopoly *per se* more seriously than large ones, given that some of the
assumptions against regulating monopoly in large economies do not hold or have limited weight in small economies. Also, market size influences the choice of remedial tools. For example, the costs of dissolution of monopolies might be much higher in a small economy than in a large one. Scale economies are more commonly lost and there may be little or no efficiency gains where structural solutions can only create alternative market structures (duopoly or oligopoly) which are also prone to anti-competitive conduct. Accordingly, conduct regulation is a much more important tool in small economies. It is thus not surprising that many small economies adopt conduct regulation of mere monopoly.

It is also argued that the regulation of mere monopoly depends, in practice, on the availability and effectiveness of other regulatory tools, such as the regulation of the creation of monopoly power as distinguished from the abuse of such power, to deal with market phenomena.

The chapter proceeds as follows. Section two describes the various considerations on which the decision whether to regulate mere monopoly rests. Section three analyzes the effect of the size of the economy on the applicability and on the relative weight of such considerations. Section four presents and analyses the different solutions available to deal with monopoly per se. The diversity of solutions adopted by different jurisdictions creates an interesting case-study. Solutions range from no regulation at all to the adoption of highly interventionary structural and regulatory solutions. Since in some jurisdictions theory and practical application diverge, practical application is also analyzed, where relevant.

4.2.2 Conventional Economic Considerations for Dealing with Mere Monopoly

The social costs of any monopoly are often independent of the manner in which the monopoly was historically achieved or of its current engagement in predatory or exclusionary conduct. Even an innocently obtained monopoly can and likely will produce monopoly pricing, and even dominant firms that do not engage in anti-competitive conduct may produce social losses that far exceed any gains. Why, then, not regulate mere monopoly? This section examines the basic considerations on which the policy
towards mere monopoly usually rests.\textsuperscript{125} It is the relative weight given to each of these considerations which ultimately determines the position taken towards mere monopoly. As the next section shows, although these considerations are relevant to both large and small economies, their relative weight changes with the size of the economy. This, in turn, may lead to the adoption of different regulatory solutions in different sized economies.

The first consideration involves the costs to society from dominance. Whether regulation is justified depends, primarily, on the nature of the adverse consequences that result from a given level of market power. The Dead Weight Loss ("DWL"), which is measurable and quantifiable, serves many economists as an approximation of such costs. The DWL signifies the amount by which the decrease in consumer surplus exceeds the increase in profit by the monopolist. It is the dollar cost to society of the monopolist’s decision to restrict output and to price above the competitive level.\textsuperscript{126} The DWL is affected by the divergence of market price from marginal cost and the variance in the number of consumers purchasing the product at the current price from those who would have purchased it at marginal cost. The total DWL to society equals the DWL of all dominant firms. Clearly, it is affected not only by the number or percentage of firms that are dominant but also by the extent of their market power. In addition to this static cost, dynamic effects must also be taken into account. These include X-inefficiency and resources wasted in the process of trying to obtain or maintain a monopoly position.\textsuperscript{127} Regulation of mere monopoly attempts to reduce at least some of these costs of dominance.

Regulation of monopoly as such involves, nevertheless, important trade-offs and practical problems. Thus, an important consideration focuses on the perceived strength of...
the self-correcting powers of the market in the absence of restrictive practices. Economic theory asserts that in markets where competitive conditions may develop, monopoly power, if not abused in order to create artificial barriers to entry, will tend to attract new firms into the market that seek to enjoy the high profits enjoyed in the industry. Such new entry, or the fear of it, will erode or contain the monopolist's power to enhance prices, to lead the non-innovative quiet life, or otherwise to use its market power. This will occur until price is set at a competitive level and firms cannot enjoy higher-than-competitive profits.

Competition is thus seen as a dynamic process which may sometimes contain the seeds of its own short-termed destruction but also contains the seeds for the revival of competition in the long run. There is a tendency to dominance, as the more efficient or otherwise successful firms increase their market power at the expense of other firms. But at the same time, such market power in itself stimulates competition in the market with the possibility that the monopoly power will be eroded over time by the revival of existing competitors or by the arrival of new ones. The dominant firm will thus be unable to exercise its monopoly power over any substantial period unless it is the most efficient firm operating in the market.¹²⁸

Some economists place significant emphasis on the ability of market forces to deal effectively with monopolies. One of the most vehement opponents of a no-fault monopoly approach is Professor (now Judge) Bork. Bork argues that ignoring the route by which size was achieved is a fundamental error since inferences about the economic effects of market power properly flow from the origins of such power.¹²⁹ The maintenance of size against the eroding forces of the market over a long period of time does not indicate market failure, but rather it indicates either an absence of restriction of output or superior efficiency, or both.¹³⁰

¹²⁸ Tim Fraser, Monopoly, Competition and the Law: The Regulation of Business Activity in Britain, Europe and America (New York, Harvester Wheatsheaf, 2nd ed., 1992), at p. 57. The force of competition was described as the process of creative destruction by Joseph A. Schumpeter, Capitalism, Socialism, and Democracy (Harper Bros., 1942).


¹³⁰ For a similar belief in the market test see John S. McGee, "Efficiency and Economies of Scale," in Harvey Goldschmid et al. (eds.) Industrial Concentration: The New Learning (Boston: little, Brown and Co., 1974) at p. 54.
Such arguments ignore possible market failures that do not allow market forces to perform their self-correcting task efficiently and expeditiously. There might be several reasons for the persistence of market power which seems indestructible by market forces, other than superior performance. The market may exhibit large scale or scope economies that can only economically support one efficient-sized firm (a natural monopoly situation). But even where the market can economically support more than one efficiently-sized firm high entry barriers might prevent the erosion of monopoly power for unacceptably long periods of time. Such barriers might include first-mover advantages, learning curves, network externalities, etc. Thus, concentration once achieved may not be easily undone in short periods of time, especially once the industry has reached an advanced stage of development. The firm may then remain dominant despite the lack of continuing superior performance. Furthermore, dominance does not necessarily imply prior or existing superiority on any absolute scale. It might well be that existing and potential rivals, on whom the responsibility for the self-policing function devolves, may have been inept, especially during the critical formative stages of an industry’s development, or are currently inept.

Yet, even if market forces cannot efficiently erode existing market power, mere monopoly regulation involves serious trade-offs. First and foremost, restraining monopolists that achieved their position solely by fair and vigorous competition from fully exploiting their potential of monopoly power distorts the incentives of firms to be more efficient or to create superior products in order to become or to remain a monopoly

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131 Such situations will be dealt with separately in Chapter 5 infra.
132 Several studies conducted by economists have found that there is little reason to believe that in the U.S. dominance is generally the outcome of a full realization of economies of scale or of other efficiencies. See, for example, F.M. Scherer et al., The Economics of Multiplant Operation: An International Comparison Study (Cambridge, Mass.: Harvard University Press, 1975).
133 For example, network externalities might prevent new, efficient firms from eroding the market power of a firm or a group of firms that enjoy first-mover advantages and a large customer base.
134 The potential entrant into a mature industry must not only raise capital sufficient to finance plant and equipment at an efficient scale, but must also have sufficient resources to cover start-up costs (e.g. creating reputation, lack of know-how and learning-by-doing) which, in a mature industry, may be considerable. Oliver E. Williamson, “Dominant Firms and the Monopoly Problem: Market Failure Considerations” (1972) 85 Harv. L. Rev. 1512, at p. 1520. For a view that market power cannot be easily eroded see also William G. Shepherd, “Dim Prospects: Effective Competition in Telecommunications, Railroads, and Electricity” (1997) The Antitrust Bull. 151.
135 Williamson, ibid.
(the “disincentive effect”). The effect might be impaired innovative performances, low levels of research and development, and productive inefficiency. Firms approaching the anti-monopoly rule threshold may have incentives to hold back by foregoing opportunities that allow them to achieve further advantage from their abilities.

The question is how likely and how significant this disincentive effect may be. Areeda and Hovenkamp suggest that the answer depends primarily on the nature of the market and the position of the firm in it at the time highly successful competitive strategies are identified or implemented. Generally, the greater effect the competitive conduct has on gaining a monopoly position, the greater the disincentive to engage in such conduct. There also exists a positive correlation between the potency of the remedies provided by the anti-monopoly rule and the disincentive effect. But even if the competitive move would subject the firm to an anti-monopoly rule, several mitigating factors still exist. First, inevitable delays in attacking and remedying a monopoly may guarantee the firm a considerable gain from any monopoly. Second, deliberate reduction of research and development enhances the risk of an even greater loss in market position. Third, competition in the capital market, operating through the takeover mechanism, serves as a check on inefficient practices. Several ways have been suggested to mitigate this disincentive effect. First, relief against mere monopoly may be deferred until it is apparent that market forces cannot eradicate it. This would minimize any disincentive effect by allowing the firm to retain the supra-competitive profits earned before its monopoly position is detected and remedied while at the same time allowing market forces to perform their role, where possible. Yet such lag may not be a complete answer to the problem. In the first place,

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136 This was acknowledged by courts and competition agencies. See, for example, the U.S. case of Dawson Chemical Co. v. Rohm & Haas Co., 448 U.S. 176 (1980)(The right to exploit by charging what the market will bear may be seen as the reward for invention and the incentive for future inventions). See also the decision of the British Monopolies and Mergers Commission in Tampons (1986)(price regulation “may discourage investment, innovation, and new entry that would otherwise be expected both to reduce future prices and to improve the range of goods and services available to the public.”).

137 Turner, supra, note 109.


139 Williamson, supra, note 134.

140 Turner, supra, note 123, at p. 1220. Williamson, ibid. This suggestion is similar to the regulatory-lag idea in rate-of return regulation. See, for example, Alfred F. Kahn, The Economics of Regulation: Principles and Institutions (New York: John Wiley and sons, Inc., 1970).
it is an inadvertent method of injecting a profit incentive. While it permits supranormal profits to be obtained, there is no express recognition that they are legitimate and acceptable as a method of encouraging a monopolist to improve its performance. More important, one cannot be sure that the opportunity provided by the regulatory lag to obtain monopoly profits is sufficient to avoid serious disincentive effects, albeit those effects might be even greater were there no such lag.\textsuperscript{141} It is thus of great importance to set timeliness of intervention clearly and correctly.

Another suggested method is the limiting of relief to remedies that would neither deprive the innocent monopolist of the legitimate fruits of its efforts nor penalize it through criminal charges or private damages. In dissolution the monopolist is deprived only of the "monopoly value" of the assets both transferred and retained, since it receives the proceeds of the sale or the stock ownership in the new firms. Similarly, under a regime of mere monopoly conduct regulation the monopolist suffers only the loss of monopoly profits. This method has some drawbacks since even prospective equitable remedies might be feared by market players, particularly if corrective action might mistakenly deprive firms of the very efficiencies that produce their success. Once the court sets out to remedy the situation the monopolist might find itself restructured or regulated to the point where its remaining power and profitability are less than they were before the competitive move that precipitated the action. Also, if violations are not easily detectable this limited remedy would not efficiently deter future violations. In addition, the firm may fear that once an attack is mounted, discovery and trial might unearth past reprehensible behavior and thus expose it to more serious sanctions, such as criminal convictions and damages. Although such discovery has some positive side effects by unearthing anti-competitive conduct, it nonetheless enhances the disincentive effect, especially where anti-competitive conduct is not clearly defined.

Regulation might also affect the pricing behavior of the dominant firm. The emerging dominant firm faces a choice between alternative profit streams. It can choose the profit stream associated with continued dominance and accept the prospect of lower short-run profits; or it can engage in aggressive monopoly pricing so as to realize greater short-run profits in order to create a decline in its market share below threshold levels or

\footnote{\textsuperscript{141} Areeda and Kaplow, \textit{supra}, note 125, at p. 556.}
in order to reap as much profit as it can before is it dissolved or regulated.\textsuperscript{142} Anti-monopoly rules create incentives for firms to choose the latter strategy. This induces resource misallocation.\textsuperscript{143} If the other firms in the market followed the same pricing policy, the result would be a price level higher than the previous monopoly level, and with worse output effects, especially since inefficient firms which have not succeeded in eroding the dominant firm’s market power in the first place, would be attracted to the market by the price umbrella held over their heads by the existing firms.\textsuperscript{144} The same considerations that apply to the disincentive effect, analyzed above, apply here as well.

Once we view competition as a process in which firms are urged to take part and compete, regulation of mere monopoly may also be seen as an inequitable denial of earned rewards. This problem was recognized in the American case of Alcoa: “the (Sherman) Act does not mean to condemn the resultant of those very forces which it is its prime object to foster: finis opus coronat. The successful competitor, having been urged to compete, must not be turned upon when he wins.”\textsuperscript{145} Yet the question again becomes how high are the profits that the dominant firm earns before and after it is subject to the anti-monopoly rule.

Another factor, although of less significance, which affects the regulation of mere monopoly involves the circular effects of a structure-based policy towards monopoly on the enforcement of other competition law violations. Since it is widely believed that dominance not based on economic superiority ought not to be permitted to continue indefinitely, if such monopoly is not regulated two adverse effects may result. First, as Turner has pointed out, the inability to deal effectively with established monopoly results sometimes in excessive expansion of anti-merger enforcement. Were the enforcement agencies and courts better able to “correct undue concentration as it appears, there would be less need to prevent mergers which present only remote possibilities of anti-competitive consequences.”\textsuperscript{146} Strong anti-merger policy is not costless. It might divert incentives to merge into incentives to invest inefficiently in internal growth or to

\textsuperscript{142} Turner, supra, note 123, at p. 1221.
\textsuperscript{143} Williamson, supra, note 134.
\textsuperscript{145} Alcoa supra, note 44, at p. 430.
\textsuperscript{146} Turner, supra, note 123, at p. 1213-5.
conglomerate. It might also prevent mergers that might have had pro-competitive effects. Second, the lack of a structural approach may also create incentives for competition law agencies to invest more resources than they otherwise would in order to detect conduct violations and for courts to grant harsher remedies than they otherwise would for such violations. Attention is focused on whether certain anti-competitive practices were employed, and not on whether the conduct could reasonably have led to the dominance.\textsuperscript{147}

Regulation also imposes \textit{direct administrative costs} upon the regulator and the regulated firm. The regulator's costs include, \textit{inter alia}, the costs of maintaining a regulatory agency, the costs of obtaining the necessary information and evaluating it, and the costs of regulatory proceedings. The regulated firm's costs include the costs of participating in the regulatory proceedings.

An additional and highly significant consideration in regulating mere monopoly involves the \textit{efficacy of government intervention}. Government intervention is wasteful where it cannot or does not improve economic performance sufficiently to offset the costs of regulation. The efficacy of government intervention depends, of course, on the mode of intervention. Intervention proposals focus on two main options: (1) restructuring of the industry by dissolution of the dominant firm, or (2) conduct regulation. While a structural solution attempts to eliminate the dominance problem, monopoly regulation usually attempts to solve only the resource allocation problems created by monopoly. No remedy is, however, water tight. Both remedies involve additional considerations to those outlined above.

\textbf{A. Further Considerations in Structural Remedies}

Structural remedies combat monopoly by restructuring the dominant firm so that after its implementation at least two viable competitors will, it is hoped, compete in the market. Their main benefit lies in creating conditions under which market forces can operate to

\textsuperscript{147} Williamson, \textit{supra}, note 134, at pp. 1515-6. In the U.S. it has been argued that some of the cases brought against monopolies under this heading were structural in nature, in that there was no real linkage between the anti-competitive conduct and the size of the dominant firm. The so-called structural suits included those filed against IBM, Xerox, the leading cereal manufacturers and the oil industry.
the benefit of consumers, at least until another firm succeeds in gaining a monopoly position.  

Structural remedies are not feasible, however, where monopoly is economically inevitable or government licensed. To restructure inevitable monopoly is pointless and inefficient because there is no acceptable structural remedy. After deconcentration either some firm would expand to take advantage of the opportunity for lower costs with larger output until the market was again concentrated or the market would operate permanently at an unnecessarily high level of costs. Similarly, where dominance is based on valid, unexpired patents or on other government licenses, break-up of dominant firms is contrary to the public policy on which such intellectual property rights or licenses are based. Accordingly, structural remedies ought not to be attempted where it would be futile because no efficient remedy is possible or because it would be contrary to other policy objectives.

But even if a structural remedy is feasible, it involves both direct and indirect costs. The direct costs of restructuring include the regulation costs (time, resources) of break-up as well as the costs of inefficient or ineffective restructuring. A major drawback of restructuring involves the difficulties in recognizing the existence of and evaluating product, plant and firm economies, and in balancing the loss of such economies against the gains from a more competitive structure. Restructuring should be considered only where it is likely to improve net economic performance or serve other social objectives substantially, after the costs of restructuring are taken into account. Product and plant economies are attributable to technical factors, in which case objective engineering or often technical evidence would be required. Such evidence may be, however, controversial. Some firm economies are harder to evaluate and quantify. Moreover, as Hovenkamp argues, divestiture almost certainly understates the social value of innovation, which often creates a durable monopoly. The argument for dissolution is made even less tenable by Williamson’s observation that “it is evident that a relatively

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148 Structural remedies are nowadays not commonplace in most jurisdictions. Some exceptions exist, such as the remedies proposed by some economists in the current Microsoft case.
149 Posner, supra, note 144.
150 This section assumes that divestiture is based on efficiency considerations. Deconcentration is sometimes defended on grounds other than efficiency.
151 Areeda and Hovenkamp, supra, note 18.
modest cost reduction is usually sufficient to offset relatively large price increases.\textsuperscript{152} This means that any efficiencies associated with a firm's size are likely to outweigh restrictions of output on the social welfare scale. Nonetheless, Williamson's observation does not hold where dominance is not based on superior performance.

One method that has been proposed to overcome this problem is by including an efficiency defense in the anti-monopoly rule. Efficiency defenses might, however, be difficult to apply. Efficiency cannot easily be quantified, and it is extremely difficult to prove the exact extent of the losses that would be incurred through a proposed dissolution. Accordingly, defendants will be unlikely to carry successfully the burden of persuasion of efficiency defenses, particularly where the anti-monopoly rule suggests that cases of doubt are to be resolved in favour of the government.\textsuperscript{153} Placing the burden of proof on the government reduces the problem of inefficient restructurings. The main cost of this method is, however, that it might prevent some efficient break-ups, given that the monopolist will most likely control the relevant information.

But even if the regulator has concluded, correctly, that scale and scope economies do not justify the current size of the dominant firm, break-up of a firm into competitive and viable parts is a difficult task. In order to combat monopoly effectively the regulator must divide the firm in such a way that the monopolized product itself is subsequently produced by two or more firms selling in the same geographic market. Restructuring requires a careful division of the firm's operations and redistribution of the firm's assets, both physical and human, into coherent, internally efficient and hopefully competitive parts, a task that might be beyond the regulator's expertise and ability. This problem has led some commentators to take a skeptical view of the proposition that government dismantling of firms would result in higher output, lower costs or enhanced consumer welfare.\textsuperscript{154}

To overcome this expertise problem Williamson has suggested that the remedial decree should induce the dominant firm to divide itself into competitive parts within


\textsuperscript{153} Areeda and Hovenkamp, supra, note 18.

\textsuperscript{154} Hovenkamp argues that "to say that courts are not good at designing or engineering such breakups is a gross understatement of reality... Equitable remedies could never be applied in a fashion reliably predicted to create greater social wealth than their costs." Areeda and Hovenkamp, supra, note 18, at p. 43-6.
some reasonably short period of time. The proposed division by the firm would then be subject to judicial review to determine whether competitive requirements have been met. Only if the firm does not voluntarily divide itself into two or more viable parts within the specified period, would the government be entitled to seek a court-ordered divestiture.\footnote{Williamson, \textit{supra}, note 134.} This proposal has some benefits. The firm’s management, which presumably has the requisite expertise to efficiently redistribute the firm’s assets, will perform such a task. This also provides a gradual structural change. No immediate interruption of activity need occur, and the high transition costs that an immediate dissolution order might impose are thereby mitigated.\footnote{\textit{Ibid.}} It seems, however, that for Williamson’s proposal to be effective, the managers or owners who propose the dissolution should operate as officers of the court and have no personal objectives in the divestiture. One way to mitigate this problem is to not allow them to take part in the management or ownership of the newly constructed units. Although this might diminish the new firms’ managerial skills, advance announcement of this limitation might discourage much “strategic” divestiture, such as the creation of a new unit with a much larger comparative advantage than the other newly created unit. It is much more difficult to devise a way to prevent managers and owners from using their power to forestall divestiture or to prolong the process, especially if they know they would not be able to participate in the new firms. This problem can be mitigated by devising a scheme that will benefit managers and owners from an efficient break-up by granting them a share of the profits from the sale of the new units (higher for owners, lower for managers), which is dependent on creating two or more equally profitable units in reasonable time.

Even if the firm can effectively be broken-up, the process might be too long or too costly. Posner argues that the time an average break-up by competition courts takes is almost similar to that which takes market forces to erode most monopolies. Thus, the dismemberment of the firm might be an uneconomic remedy.\footnote{Posner, \textit{supra}, note 144, at p. 231-4.} Posner’s argument relies, however, on average tendencies which do not apply to these persistent monopolies which seem irresistible to market forces for long periods of time. Nonetheless,
dissolution is doubtlessly wasteful whenever market forces would erode the monopoly in less, the same, or even somewhat longer time.

Divestiture also creates indirect costs. The dominant firm may, in anticipation of dissolution, *undertake costly steps designed solely to make the costs of divestiture exceedingly high*, such as to engage in excessive equipment specialization. A satisfactory deterrent to such behavior is not easy to devise.\(^{158}\) This effect might be partly mitigated by the fact that the owners of the firm have incentives for the sale of the restructured firm to be as profitable as possible. It can also be reduced if the steps taken by the firm in order to raise the costs of divestiture were not regarded by the courts as obstacles to dissolution.

B. Further Considerations in Regulating the Monopolist’s Trade Conditions

Monopoly regulation strives to set the monopolist’s decisions (e.g. price, output, quality) at an economically efficient level, or at least closer to the competitive level. The role of the regulator is to set various performance variables and to intervene in the decisions of dominant firms in specific cases that do not conform to these variables. Regulation can take one of many forms. It might involve price, output and quality or other trade terms or only one of these parameters; it may create a civil or a criminal violation or might subject monopoly to regulation *per se*; regulation might apply to all strategies that deviate from a competitive benchmark or might condemn only rare occasions where the difference between the competitive benchmark and the regulated parameter is deemed excessive; regulation might be limited to the prohibition of certain acts or might permit direct regulation of conduct by setting performance and conduct variables before hand. Although these differences are appreciable, conduct regulation has many common elements.

Conduct regulation suffers from some inherent costs above and beyond those inherent in all mere monopoly regulation, reviewed above. First and foremost, monopoly pricing and output regulation *distorts the price signals in the market* and in so doing impedes the dynamic adjustment process that might restore competition in the long run. Monopoly pricing acts as a signal to other market participants that higher than usual

profits can be reaped in a certain industry. These participants may then enter the market in order to enjoy such profits and price will eventually be bid down to competitive levels. The profit maximizing price is thus necessary in order to make competitive market forces function effectively.\footnote{This has been acknowledged by courts. In the U.S. Berkey Photo case the Second Circuit Court of Appeals regarded excessive pricing as pro-competitive, in that "there is probably no better way for [a monopolist] to guarantee that its dominance will be challenged than by greedily extracting the highest price it can." \textit{Berkey, supra}, note 43.} Where high price is used as a signal of high quality,\footnote{See Benjamin Klein and Keith Leffler, "The Role of Market Forces in Assuring Contract Performance" (1981) 89 \textit{Journal of Political Economy} 615 and Carl Shapiro, "Premiums for High Quality Products as Returns to Reputation" (1983) 98 \textit{Quarterly Journal of Economics} 659.} pricing regulation also distorts such price signals to consumers.

Another major consideration focuses upon the \textit{institutional limitations of an outside agency-be it a court, competition agency or any other governmental agency- to regulate efficiently the decisions of a private firm}. The problem of optimal regulation can be viewed as a game between the firm and the regulator, where the firm is intent upon profit maximization while the regulator seeks to maximize social welfare.\footnote{Such assumption is, of course, very simplistic since it does not take into account, for example, political concerns of the government as well as non-profit objectives of managers such as enhancement of sales revenues. John Vickers and George Yarrow, \textit{Privatization - An Economic Analysis} (Cambridge, Mass.: The MIT Press, 1988), at p.79-80.} One of the main difficulties that the regulator faces in achieving optimal regulation is asymmetric information. The fact that the regulator is one step removed from the operations of the productive entity necessarily limits its access to the needed information and its ability to evaluate such information.\footnote{One way to partly combat this problem is to grant competition authorities extensive investigative powers. In some jurisdictions, such as Norway, dominant undertakings must submit each year an annual statement of accounts and a report on their activities to the competition authorities.} It seems fair to assume that most doubtful cases are resolved in the firm's favor, simply because the regulator is reluctant to displace corporate business judgments unless it seems reasonably clear that management is mistaken or dissembling. The result may be that substantial monopoly profits are obtained that never show up in the profit column of the ledger.\footnote{Vickers and Yarrow, \textit{supra}, note 161.}

Additional considerations involve the \textit{ability of the regulator to evaluate pricing, output and other trade terms} and to determine competitive benchmarks in monopolized industries. Establishing an efficient price, for example, is not a trivial undertaking. In many cases marginal cost is either theoretically indeterminate (as in the case of joint
products) or practically indeterminate. The very absence of strong competitors implies that there is no easily obtainable objective benchmark of the monopolist's performance. Where the regulator cannot easily rely on data from other markets the test of the firm's performance must be largely theoretical. Relatively moderate errors that regulatory agencies can scarcely avoid committing can render regulation quite ineffectual. If price is set too low to cover legitimate costs and to attract needed capital, service will deteriorate, necessary capital improvements will not be made, and ultimately shortages will occur. Rationing will be required in the short run and government subsidization will be required in the long run. If, on the other hand, where price is set above competitive levels output will be restricted with resultant misallocation of resources and suboptimal economic performance. Also, as the regulated conduct would be committed (or repeated) if the benefits from it exceed the costs of regulation (remedy times the probability of detection), regulation would not deter firms from engaging in the regulated conduct unless it takes away from the monopolist all the profits from his conduct and all violations are detected. This is true unless some other costs are involved in regulation (e.g. reputation). The specialized knowledge and the steep learning curve needed to regulate such conduct might thus be sufficiently important to justify a hands-off approach.

Regulation might also be limited by the institutional apparatus by which the policy is effected. Where regulatory powers are vested in the courts, judicial decrees must be tailored to what an engaged court can supervise. Turner has long argued that courts that would attempt to prevent monopoly pricing by setting lower price levels would be forced to act as public utility commissions. An injunction that would simply prohibit the defendant from further charging monopoly prices would be too vague. It would not

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164 Evidence supplied by studies of the effects of economic regulation indicates that regulation of natural monopolies produces little change in price levels. Bork, supra, note 129, at p. 181 and studies cited there. However, an Israeli study that compared the profitability of monopolies (which were defined as firms that possess at least 50% market share) with the average profitability in manufacturing industries during 1968 and 1978 reached different results. The findings indicate that regulation affects the profitability of monopolies. Between the years 1968 and 1978 the profitability of monopolies, as a percentage of their sales, declined in about 50%. The decline in profitability was the result of governmental regulation of prices. Since 1970, concentrated industries' prices were closely regulated. This had the unavoidable effect of a growing erosion of the regulated firms' profitability. Zeev Galmor, The Nature of Competition in the Israeli Market, (The Ministry of Commerce and Industry, 1982).

165 Turner, supra, note 123.
give an efficient indication for the correct set of prices that would be deemed lawful. An order requiring the monopolist to set price equal to marginal cost would be very hard to enforce, given all the factors that affect the cost function of the firm. But even if a court could determine such prices close regulation would be necessary. Given constant changes in the cost-function, the court would be forced to play a supervisory role that would ensure that such changes are reflected in the price structure. Failing to do so might allow the firm to enjoy monopoly profits, in contrast to the objective of the order. Alternatively, it might force the firm to incur competitive losses whenever there was a fall in demand or whenever costs of inputs have risen. Such judicially enforced losses are a serious determination for courts to make. Accordingly, such an order cannot be effectively enforced with good prospects for materially solving the resource allocation problems without involving the courts in a regulatory function for which they are ill-equipped.\(^\text{166}\) In addition, to control price without controlling the nature of the product permits price increases to be imposed through product variation. Thus, courts would also be involved in regulating quality.

The judiciary and a judicial process have additional shortcomings, compared to an administrative regulatory process. These include the fact that regulators may have more expertise than courts in setting efficiently the performance parameters for the firm's performance and in regulating it. Economic regulation may also be timelier than competition litigation. Since competition law litigation usually applies ex post, the monopolist's distortions might greatly affect the industry until the matter is finally resolved. In contrast, ex ante economic regulation avoids these consequences. Also, direct regulation avoids some of the procedural and proof-related obstacles inherent in litigation that may not be relevant to the economic impact of the conduct. As section four elaborates, economies have adopted a wide array of different methods in order to overcome the problems of utilizing the traditional judicial process for dealing with competition law violations in conduct regulation.

\(^{166}\) The AT&T consent decree, by which the U.S. antitrust authorities attempted to regulate AT&T by structural changes and on-going monitoring of its interconnection contracts, was highly criticized for the on-going monitoring role that the antitrust court attempted to play. See, for example, Gerald W. Brock, Telecommunication Policy for the Information Age- From Monopoly to Competition (Cambridge, Mass.: Harvard University Press, 1994), at p. 230-1.
At bottom, condemning or regulating mere monopoly involves serious trade-offs between conflicting considerations. The debate centers, mainly, on the perceived costs of monopoly, the relative effect of the self-correcting tendencies of the market, the magnitude of the disincentive effects, and the costs of government intervention. I now turn to the effect of the size of the economy on such considerations. As the next section argues, despite its limitations, structure-based approaches towards mere monopoly should not easily be dismissed in small economies.

4.2.3 The Effect of the Size of the Economy on the Comparative Weight of Conflicting Considerations

The size of the economy affects the comparative weight of some of the considerations that determine whether to regulate mere monopoly. First and foremost, the market’s self-correcting tendencies are more pronounced in large economies than in small ones. In large economies such tendencies are believed to deal effectively with most non-natural monopolies. This, however, cannot as easily be said of small economies. In small economies market conditions are such that the self-correcting forces of the market have a much more limited effect. Barriers to entry into many industries are high (given economies of scale and firm interdependence) and the market cannot as easily be relied upon to erode a dominant position. In the extreme, where the market can only support one firm, a natural monopoly, erosion of existing power is almost impossible. An entrant will properly make the calculation of what profits will be after entry, rather than before, and will perceive that with one more minimum scale firm in the market the addition to supply will be such as to reduce prices to a point where profits cannot be earned. That is a quite common situation in small economies. But even if the market can support more than one firm, the dynamic process may be slow and it may take market forces a long time to erode existing monopoly power given high entry barriers. Dominance,

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167 See section 4.2.4 A below analyzing U.S. case law.
168 Natural monopolies are dealt with separately in Chapter 5 infra.
169 The size of the market may also affect the concentration of supplementary markets such as distribution and finance. This, in turn, might create entry barriers. See chapter 1 above. When transportation costs into
however, may not necessarily be a result of superior performance. It might be determined by financial stability, by first-mover advantages, or by other factors that do not necessarily signify superior performance.

Second, the effects of single firm dominance on a small economy might be much more pronounced than on a large one. To be sure, a large economy may suffer a larger economic impact of dominance, in absolute terms, than a small one, given that the effect of dominance is based on both the rarity of monopoly as well as on the extent of market power. But the prevalence of dominance in a larger number of industries in a small economy due to the lower tendency of market forces to erode dominance may create a much more significant proportional impact of market power.

Third, the impact of the disincentive effect created by an anti-monopoly rule on small economies differs from its effect on large ones, although it is difficult to determine its general direction. On the one hand, the more concentrated a market, the greater the possibility that discovery and exploitation of a competitive advantage might lead to a monopoly, and the likelier the firm is to be cautious about seeking or exploiting such advantages if mere monopoly is regulated. Hence the greater possibility that an anti-monopoly rule would have a stronger deterrent effect on small, concentrated economies that in a large one in which it remains unlikely, as a matter of general probability, that most competitive moves not involving a patentable invention will produce monopoly. On the other hand, given the prevalence of scale economies in small economies, dominant positions might be unavoidable with or without engaging in competitive moves. In such cases, anti-monopoly rules have no effect on the firms’ engagement in additional competitive moves. Accordingly, it seems that a further categorization of small economies is in order. In very small economies the unavoidability of dominant position will dominate, while in larger ones the disincentive effect will. Similar considerations apply with regard to the distortion of price signals by conduct regulation.

the small economy or into some of its regions or industries are high, domestic firms might be able to enjoy locational rents. For competition policy purposes, however, such rents should not be treated differently from other sources of comparative advantage that do not result from anti-competitive conduct, such as the control of a scarce resource or superior technology.

170 Areeda and Hovenkamp, supra, note 18. See also Turner, supra, note 123, at p. 1216.
Given the above considerations, a small economy requires a more thorough analysis of proposals to deal with mere monopoly under competition laws. Such issues cannot be brushed aside under the assumption that market forces will take their course in due time. Government intervention might be required if monopoly costs are to be reduced.

The size of the economy also affects the remedies for mere monopoly. Structural solutions typically have a more limited applicability in small economies than in large ones. The efficiency of dissolution depends, primarily, on the ability of the industry to thereafter perform in a more competitive manner and thus realize allocative efficiency gains. In many industries in small economies dissolution will not necessarily achieve such results. Given the prevalence of scale economies, such break-up may involve non-negligible trade-offs between productive and allocative efficiency. In the extreme case, where the market can support only one firm and exposure to international trade is not feasible, dissolution is not a viable remedy. In many other situations break-up of dominant firms into smaller units may create a concentrated market structure (duopoly or oligopoly) which is also prone to monopolistic exploitation. Structural solutions may thus have very limited power, if at all, to contain the monopoly behavior of firms in many industries. Nonetheless, given the greater effectiveness of efficient break-up, it might be wise to make dissolution available in these cases in which it can produce efficient results.

In many situations, however, monopoly regulation might well be the only solution to dealing with the inefficiencies involved in the operation of dominant firms. This, in turn, implies that more weight should be given to conduct regulation, where structural solutions do not produce efficient results.

4.2.4 Analysis of Different Approaches to Mere Monopoly

Generally speaking, there are three main methods for dealing with mere monopoly. The first method, adopted *inter alia* by the U.S. and Canada, is to refrain from regulating mere monopoly. The second method, the structural method, empowers the courts to break-up a monopoly or to regulate it where specified market structure or firm performance preconditions are met which do not require proof of anti-competitive
conduct or intent of the monopolist. Remedies for no-fault monopoly rules vary considerably. Some jurisdictions empower competition courts to break up monopolies. Other jurisdictions, such as England and Australia, regulate the pricing and other decisions of the monopolist. Some jurisdictions, such as Israel, combine both remedies. Most jurisdictions allow for the conduct regulation of essential facilities. The third method finds abuse of dominant position where the monopolist has engaged in some monopoly pricing, output or other strategies. The conduct is directly prohibited, subject to criminal, quasi-criminal, or civil sanctions in cases of violations. Some jurisdictions, such as Australia, treat monopoly pricing as a civil offense which subjects the violator to civil fines and in some cases even to tort liability. Others, including the EC, Israel, and Malta, find a violation also where the monopolist has restricted output, quality or other trading conditions. This conduct-based method is sometimes combined with the second method.

The choice of method is based on the assumptions made with regard to the different considerations surveyed above, especially the self-correcting forces of the market and the efficacy of alternative remedies. It is also influenced by the scope of the additional regulatory powers given to the competition authorities and the courts. Where such bodies are empowered to prohibit practices that may create market power (preventing mergers, regulating attempts to monopolize by anti-competitive methods) regulation of mere monopoly is deemed less important than where the competition authorities are confined to limiting the exercise of already achieved dominance. Thus, one should also consider merger policy as well as the power to prevent dominance-creating moves. It should also be considered against the background of other existing laws besides competition laws that grant other government authorities regulatory powers.

A. Non-Interference with Mere Monopoly

i. United States: Reliance on the Market’s Self-Correcting Tendencies
The perceived strength of the market’s self-correcting tendency, the disincentive effect, and the difficulty of remediying mere monopoly, have led U.S. legislatures and courts to
refrain from prohibiting or regulating monopoly per se.\textsuperscript{171} No legislative proposal which attempted to prohibit mere monopoly has ever been adopted.\textsuperscript{172} No U.S. case has yet granted relief simply on the basis that a monopoly is persistent and not inevitable. Judicial interpretation of the \textit{Sherman Act} section 2 monopolization offense has instead focused on the presence or absence of exclusionary or predatory conduct in obtaining or in maintaining monopoly power (the behavioural approach).\textsuperscript{173}

Several court decisions have, nonetheless, come close to adopting a structural approach. Judge Hand's \textit{Alcoa} decision comes very close to suggesting that a firm may be found to have monopolized a market unlawfully simply by maintaining monopoly power for a period of time substantial enough to indicate that market forces by themselves will be unable to undo the firm's dominant position.\textsuperscript{174} The Court's suggestion in \textit{United Shoe}\textsuperscript{175} that monopoly be deemed unlawful unless the defendant proves that its monopoly is entirely due to such inevitable or praiseworthy factors as economies of scale or superior skill is also close to condemning mere monopoly, given that such a burden of proof is difficult if not an impossible one to discharge by the monopolist. Such proof cannot be based on the fact of persistence or the defense swallows the rule. It is a highly problematic defense when there are no competitors with whom to be compared.\textsuperscript{176} To be sure, however, the pure structural approach was rejected in later Supreme Court decisions that continue to require the presence of exclusionary or predatory conduct before finding illegal monopolization. Following the \textit{Grinnell} decision, dominance based on "a superior product, business acumen, or historic accident"\textsuperscript{177} does

\textsuperscript{171} With the exception of essential facilities, which are dealt with in Chapter 5 below.
\textsuperscript{172} See section 4.2.4 B below.
\textsuperscript{173} See, for example, \textit{Standard Oil Co. v. United States} 221 U.S. 1 (1911)(The Sherman Act omitted "any direct prohibition against monopoly in the concrete"); \textit{United States v. United States Steel Corp.} 251 U.S. 417 440-1 (1920)("The law does not make mere size an offense or the existence of unexerted power an offense. It, we repeat, requires overt acts, and trusts to its prohibition of them and its power to repress or punish them. It does not compel competition nor require all that is possible"); \textit{Grinnel, supra}, note 7.
\textsuperscript{174} \textit{Alcoa, supra}, note 44 (The legality test suggested that firms with monopoly power would be guilty of monopolization unless they could show that they were the unwilling possessors of such power. Such would be the case if a dominant firm "intended to put an end to existing competition, or to prevent competition from arising where none had existed." In order to escape a charge of monopolization the monopolist had to show that monopoly was "thrust upon it").
\textsuperscript{176} Areeda and Hovenkamp, supra, note 18.
\textsuperscript{177} \textit{Grinnel, supra}, note 7, at p. 571.
not constitute a violation of Section 2 of the *Sherman Act*, and the burden of proof that such conditions do not exist rests upon the plaintiff.

This conduct approach to unlawful monopolization is based, *inter alia*, on the belief in the self-correcting tendencies of the market as well as the rarity of dominance in U.S. markets. Areeda and Hovenkamp make this point as follows:

"If the law can prevent artificial barriers to such new entry, then the self-correcting forces of the marketplace will impede the attainment and maintenance of monopoly power except where the monopolist is beyond cavil because it was, or continues to be, so efficient and progressive as to out-compete all actual or potential rivals. *The rarity of the last exception and the force of the self-correcting tendency are powerfully suggested by the relative rarity of persistent single-firm domination in our major national markets.*"

Dominance, as such, is thus not considered anti-competitive. Neither are related phenomena such as large market share, which was not achieved by anti-competitive means. The outcomes of such dominance, including monopoly pricing and restricted output, are also not considered anti-competitive.

U.S. courts dealt directly with monopoly pricing in *Berkey Photo*. There, the United States Court of Appeals held that excessive pricing, although reflecting the exercise of monopoly power, is not in itself anti-competitive. It is only when monopoly

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178 *Standard Oil*, supra, note 173 ("monopoly would be inevitably prevented if an extraneous or sovereign power imposed it and no right to make unlawful contracts having a monopolistic tendency were permitted" p. 62). *United States v. American Can Co.*, 230 F. 859, 901-2 (D. Md. 1916)(Perhaps the framers of the anti-trust Act believed that if such illegitimate attempts were effectively prevented, the occasions on which it would become necessary to deal with size and power otherwise brought about would be so few and so long postponed that it might never be necessary to deal with them all.) See also Williamson, *supra*, note 134 (The conduct approach is based on the belief that "competition works- at least in the limited sense. Absent deliberate impairment of competition, actual and potential business competitors can be relied upon to perform self-policing functions by responding appropriately to opportunities for private gain. Except in circumstances in which economies of scale are large in relation to the market (the "natural monopoly" situation) or where the government itself protects monopoly through the patent system, persistent dominance of an industry but a single firm is not to be expected" at p. 1513-4.)


power has been acquired or maintained through anti-competitive means that excessive pricing will be taken to be offensive. The converse is also true: a firm that has unlawfully acquired market power is not spared from monopolization charges if it charges low prices.\textsuperscript{181} It was also decided that a monopolist does not engage in anti-competitive conduct even if by not engaging in monopoly pricing less efficient producers would have to exit the market. As Judge Posner put it in \textit{Olympia Equipment}：“a monopolist should be free to compete and should not have to exercise any special restraint or hold a price umbrella over inefficient competitors.”\textsuperscript{182} Further, \textit{United States Steel Corp.}\textsuperscript{183} suggests that a monopoly may escape condemnation of monopolization by erecting a price umbrella that allows competitors to enter and to grow.\textsuperscript{184}

This permissive approach towards monopoly pricing rests upon three traceable principles. First, if a firm prices at monopolistic levels, the high price itself may invite new entry and expanded competition and market forces will gradually erode the monopoly power.\textsuperscript{185} Second, monopoly pricing not based on anti-competitive means is seen as a reward for successful competition. The basic principle, stated clearly in \textit{Alcoa}, is that successful firms should not be penalized for their success and should be allowed to enjoy the fruits of their legally acquired superiority.\textsuperscript{186} The third principle is an inherent unwillingness to allow courts to act as business directors, substituting their own judicial decisions for those freely and expertly taken by the firms themselves.\textsuperscript{187}

Thus, a monopolist who becomes such or remains such by virtue of valid patents, force of accident, because the market cannot support more than one seller, or by virtue of “skill, foresight and industry,” is deemed lawful and is free, absent the leverage of monopoly power into related markets, to charge a monopoly price.\textsuperscript{188} The offense in

\textsuperscript{181} \textit{Alcoa, supra}, note 44 (once exclusionary practices are proven, it is no excuse for monopolizing a market that a monopoly has not been used to extract from the consumer more than a “fair” profit).

\textsuperscript{182} \textit{Olympia Equipment Leasing Co. v. Western Union Telegraph Co.} 797 F. 2d 370 (7th Cir 1986) at 375.

\textsuperscript{183} \textit{United States v. United States Steel Corp.} 251 U.S. 417 (1920).

\textsuperscript{184} As evidence that U.S. Steel had not exerted whatever power it possessed, the court cited the erosion of the company’s market share in the 10 years after its formation, and the testimony of competitors that they were not in any way restrained by the company’s prices. \textit{Ibid}, at p. 446.

\textsuperscript{185} \textit{Berkey Photo, supra}, note 43.

\textsuperscript{186} \textit{Alcoa, supra}, note 44.


\textsuperscript{188} Turner, \textit{ibid}, at p. 667.
section 2 of the Sherman act, as interpreted by the courts, is not the mere possession of monopoly power, but rather monopolization.

Nevertheless, some monopoly tactics are deemed unlawful and require U.S. courts to engage in conduct regulation. The most important example is the essential facilities doctrine that requires a monopolist controlling an essential facility to permit all firms for which use or access to such facilities is essential for commercial viability such use on a non-discriminatory basis.\(^{189}\) However, this doctrine reflects and is limited to a policy of containment. It is directed against conduct that has a measurable further impact on competitive conditions, conduct that maintains or expands existing monopoly power, or threatens the deterioration of competition in other markets.\(^{190}\)

Also, the U.S. regulatory system, although not prohibiting bigness as such, places important restrictions on the acquisition or maintenance of monopoly power. The law prevents acquisition of market power, or a dangerous probability thereof, by collusion, joint venture, or merger, absent a showing that sufficient overriding efficiencies are expected from the horizontal combination. The legality of such combinations may be judged antecedent to their formation given that it is administratively difficult to disentangle firms after they have been integrated. In addition, monopoly achieved or maintained by exclusionary or predatory means is subject to criminal sanctions, including dissolution or divestiture.

**Canada: Non Interference with Mere Monopoly**

Another jurisdiction that has adopted a behavioural approach towards monopoly is Canada. Canadian courts have no authority to break-up or regulate a monopoly where no anti-competitive conduct is found. Monopoly pricing and other trade term strategies are also not condemned \textit{per se}. Sections 78 and 79 of the Canadian \textit{Competition Act} which deal with abuse of dominant position require that for conduct to be considered as an abuse of dominant position it must be “anti-competitive conduct” (defined by case-law as predatory, disciplinary or exclusionary\(^ {191}\)) and have the effect of “preventing or lessening

\(^{189}\) For a discussion of the essential facilities doctrine see Chapter 5 below.

\(^{190}\) Turner, \textit{supra}, note 109, at p. 667.

\(^{191}\) Dunlop \textit{et al}, \textit{supra}, note 2, at p. 199. See also Nutrasweet, \textit{supra}, note 82; Nielsen, \textit{supra}, note 82; Tele-Direct, \textit{supra}, note 89.
competition.” Both conditions are not met in monopoly pricing and other trade term decisions per se. As in the U.S., access to essential facilities will most likely be regulated by the Competition Tribunal, if the essential facility is not already regulated by a direct regulator.

The behavioural approach to dominance was also adopted in many smaller economies, such as New Zealand and Australia. Recent amendments to their competition laws have, nonetheless, introduced some structure-based elements that allow for the regulation of mere monopoly in predefined situations. Such amendments may well be justified. A competition law that is based on the assumption that workable competition is technically feasible and will enhance efficiency is a limited tool. Monopolization provisions that require proof of anti-competitive conduct promote competition only where the assumption that competition, not inhibited by artificial obstacles, will allow the markets to operate unregulated, holds true. Such provisions focus, by definition, on the conduct of individual competitors rather than on market conditions that allow competition to take place in a wider sense. Yet, especially in a small economy, the issue of whether competition can take its course is not answered only by an assessment of whether competition is improved or diminished by the particular conduct under review. The anti-competitive conduct of economic agents in the market is only one in a series of factors influencing the state of competition. Given the small size of the market, a dominant position can be acquired quite easily, even without anti-competitive conduct. And once such position is acquired, it is very difficult to erode it. Thus, the non-interference approach should not be blindly adopted in small economies. As will be elaborated in the next sections, most small economies have adopted tools that regulate mere monopoly. Although in most small economies the basic doctrine is that mere monopoly.

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192 The refusal to deal provision (section 75 of the Competition Act) might also be relevant. However, its suitability to regulate monopoly rates is questionable. For example, it is not clear what the term “usual trade terms” means in the monopoly context.


194 See sections 4.2.4B and 4.2.4C below.
monopoly does not violate the law, competition authorities are empowered to regulate mere monopoly in specified circumstances.

B. Break-up or Conduct Regulation of Mere Monopoly

At the other end of the scale we find regulation of mere monopoly. Under this approach proof of intent or anti-competitive conduct is not required. Instead, regulation is based on market structure or firm performance factors. Much is assumed in the way of the governmental ability to deal effectively with monopolies and minimal weight is given to the disincentive effect. Remedies and violations vary considerably from one jurisdiction to the other, from break-up to conduct regulation. Not surprisingly, regulation of mere monopoly can be found in many small economies such as Israel, Malta, and New Zealand. Their competition laws do not focus solely on the way in which the monopoly has reached its dominant position or on its current engagement in anti-competitive conduct. In a small market such an approach would leave many dominant firms unregulated both by law and by market forces. Accordingly, many laws of small economies impose regulatory control on bigness as such. Structural remedies are surveyed followed by conduct remedies.

I. Structural Remedies for Mere Monopoly

U.S. proposals to adopt a structure-based approach
Several U.S. commentators and legislatures have proposed the adoption of a more structural approach towards dominance. The proposals attempt to fill what they perceive to be a gap in the law dealing with monopolies and other concentrated market structures which the market does not succeed in eroding in due time and which have adverse economic performance as well as non-economic consequences. Most proposals focus on structural remedies: break up of concentrated industries. Although most proposals are

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195 Some economists have advocated the adoption of conduct remedies. Walter Adams, for example, advocated the adoption of a competition law which would inter alia require the monopolist to serve all customers on reasonable and non-discriminatory terms and to pursue pricing and product policies
directed mainly at oligopolistic market structures, given the prevalence of this market structure in many U.S. industries, they also apply to single-firm dominance. Moreover, arguments for restructuring the market are strongest in the case of monopoly given that firms in oligopolistic industries are not always able to achieve the results of a monopoly and thus may be less harmful.\footnote{Calculated to achieve capacity production and full employment. Walter Adams, "Corporate Power and Economic Apologetics: A Public Policy Perspective" in Goldschmid, supra, note 130, at p. 360.}

The proposals are all based on the fact that market forces do not always succeed in eroding monopoly power which is not based on scale or scope economies or on business superiority. Many markets capable of supporting greater competition appear to obstruct new entry with barriers resulting from market conditions that competition laws cannot reprehend. The argument that structure will take care of itself relies too heavily on average tendencies. Although the market can correct dominance in most cases, aberrations can and do appear and the implied time horizon for self-policing to be efficient may be unacceptably long.\footnote{Several studies have been conducted on the dissipation of concentration in the absence of artificial barriers to entry. Yale Brozen has found that "a high level of concentration in an industry tends to dissipate by natural forces within an average period of ten years." Yale Brozen, "Bain's Concentration and Rates of Return Revisited" (1971) \textit{14 Journal of Law and Economics} 351. For criticism of this analysis see MacAvoy, McKie and Preston, "High and Stable Concentration Levels, Profitability, and Public Policy: A Response", (1971) \textit{14 J. Law and Econ.} 493. In any case, these average market tendencies that necessarily imply that in some cases dissipation periods may be longer. Williamson, supra, note 134, at p. 1514.}

Williamson's suggestion is one of the most interesting proposals. Williamson has proposed that dominance due to business acumen or historical accident should not be exempted from the \textit{Sherman Act}'s section 2 scrutiny. Where such monopolies are concerned, contrived proof of anti-competitive conduct would be made unnecessary in order to obtain relief. Williamson argues that business acumen and historical accident can be brought within the ambit of market failure analysis and that the usual presumption of government intervention where remenable market failures occur is warranted. Business acumen might refer to earlier periods in the firm's history and does
not necessarily imply superiority on any absolute scale. Likewise, historical accident can be viewed as a form of market failure, since the dominant firm may be thrust ahead of its competitors by an unusual sequence of fortuitous events.

Williamson's proposal is interesting in that it proposes a new interpretation of existing legislation (the Sherman Act) without a need for the adoption of a new legislation. Williamson acknowledges, nevertheless, some of the inherent limitations of his proposal. He concedes that government intervention is reasonable provided only that (1) the dominant firm's market position can be judged to be relatively secure and hence unlikely to be undone by the operation of unassisted market processes, and (2) an efficacious remedy can be devised. He thus argues that the courts should limit themselves to dealing with dominance based on "business acumen or historic accident" by assuming that persistent dominance is unlawful only if the industry can be judged to have reached an advanced stage of development. The dominant firm would be able to rebut the presumption of unlawful monopolization by demonstrating that its dominance was the result of economies of scale leading to natural monopoly, of the exercise of an unexpired patent, or of continuing, indivisible, absolute management superiority.

However, the proposed construction of burdens of proof will almost inevitably lead to findings of illegal monopolization. It might also be argued that in many cases superiority might not be absolute but relative. It might well be the case that the dominant firm enjoys superiority in some of its activities, but not in all. For example, it might enjoy network externalities while not necessarily producing the highest quality product. In such cases, Williamson's proposal might create unwarranted outcomes. Also, if dominance is found to be a result of default failure of other market players, there is no guarantee that dominance will not reoccur in the market, and that especially where dominance carries with it some benefits to the public the outcome will be socially optimal.

As for the remedy, Williamson discusses dissolution of the dominant firm. He argues that even if dissolution would result in transitional welfare losses, these may not be great. He would be inclined to accept them, in the expectation that a net social gain would commonly obtain from the early dissolution of the emerging dominant firm.199

199 Williamson, supra, note 134, at p. 1528. For a similar view see Turner, supra, note 123, at p. 1221.
This assumes that the industry will thereafter perform in a more competitive manner and thus realize allocative efficiency gains.

Another well-known proposal to regulate monopoly apart from any identifiable restrictive practices has been advanced by Kaysen and Turner. The proposal suggested a statute designed to identify and dissolve firms found to have unreasonable market power based on some performance tests and a type of efficiency defense. They suggest empowering an Industrial Reorganization Commission to institute civil proceedings before a new economic court. The Court would be empowered to order divestiture or other relief in order to eliminate the unreasonable market power of the presumably innocent but persistent and substantial monopoly that proves resistant to ordinary market forces. The inevitable monopoly- based on economies of scale, indivisible scarce resources, extraordinary efficiency, low prices or superior product attributable to innovation, or legal license- should, however, be exempted from attack.

Several industrial deconcentration bills that adopt a structural approach have been proposed from time to time. In 1968, for example, the majority of the White House Task Force Report on Antitrust Policy (the Neal Report) recommended adoption of a “Concentrated Industries Act”, designed to reduce concentration in any industry in which “any four of fewer firms had an aggregate market share of 70% or more during at least seven of the ten and four of the most recent five base years.” Though a type of efficiency defense was provided, it seemed unlikely to prove important. The proposed statute would empower the court to require monopoly or oligopoly firms either to divest themselves of assets or to modify their contractual relationships and methods of distribution so that no firm had a market share of more than 12 percent. The Neal Report was adopted three years later as a legislative proposal. The bill was based on a structural criteria- a stable four-firm concentration ratio of 70 percent within a 500 million-dollar market. The Department of Justice was to decide which markets to challenge, presumably on the basis

201 Areeda and Kaplow, supra, note 125, at p. 556.
202 The chair of the committee, Professor Neal, later expressed some hesitancy about the efficiency of deconcentration proposals. Phil Caldwell Neal, “On Implementing a Policy of Deconcentration”, in Goldschmid, supra, note 130, at p. 377.
203 S. 2614 92nd Cong. 1st Sess (Sept 30, 1971)
of an appraisal of economic performance and the prospective gains from restructuring. This bill, as well as other proposed bills, was not adopted by the U.S. Congress. Opponents of these bills focused, mainly, on the costliness of regulatory procedure and on the possible inefficiency of governmental relief.

Restructuring of Mere Monopoly: Israel

Israel serves as an example of a small economy in which the Competition Tribunal is empowered to break up mere monopoly, as one of several remedies in its power. Section 30 of the Restrictive Trade Practices Act 1988 states that once the Competition Tribunal finds that the existence of a monopoly harms the public in the price, quality, or quantity of a product or a service, or by unfair competition in the market, it may mandate the monopolist to take certain steps which are necessary in order to eliminate the harm.

Section 31 authorizes the Tribunal to break-up the monopoly, upon request from the Director of the Trade Restrictions Authority (the "Director"), if the harm to the public is significant and it cannot be dealt with in a less drastic alternative manner. Restructuring may be by way of transfer of some of the shares to a separate undertaking in accordance with the requests of the monopolist, by transfer of some of the monopolist's assets to a separate firm, or by any other way chosen by the Tribunal. The law does not forbid mere monopoly, but rather limits its viability or conduct (as elaborated below) if its existence harms consumers significantly.

In the ten years since the power of restructuring was granted to the Tribunal no break-up has been requested or mandated. The reasons may be threefold. First, given the expertise necessary in order to mandate an efficient break-up, the Director has been reluctant to require such a drastic measure. Second, restructuring is a remedy of last resort, to be used only when conduct regulatory measures fail to regulate the monopolist effectively. Given the extensive conduct regulatory powers of the Tribunal, surveyed below, the Director has seen no need to use the more powerful remedy of restructuring.

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204 Senator Hart's Industrial Reorganization Act: S. 1167 93rd Cong. 1st Sess (Mar 12, 1973) reintroduced as S. 1959, 94th Cong. 1st Sess. (June 17 1975)
205 For academic debates over deconcentration proposals see, for example, Goldschmid, supra, note 130.
206 Section 3 of the Israeli Trade Restrictions Act 1988.
207 Monopoly case 1/93 Director of Trade Restrictions v. Dubek Inc. et al., Trade Restrictions Tribunal (17.1.95).
Alternatively, the Director could not easily prove that less drastic measures did not regulate monopoly power effectively. Third, for restructuring to be efficient the dominant firm has to be divided into two or more viable firms without jeopardizing scale or scope economies. As noted above, in a small economy such break up may not be possible in many markets.

The Israeli approach differs from U.S. proposals in several important aspects. First, the Israeli Act requires proof of harm to the public as a prerequisite of restructuring. This difference may, however, be more procedural than substantive. U.S. proposals assume that persistent monopoly harms consumers unless the efficiency defense requirements are met. Second, U.S. proposals include an efficiency defense. This difference, too, might be more linguistic than substantive. Although the Israeli Act is worded poorly, it seems that the Director must prove not only that the level of price, output, or quality is significantly different from what it would be under more competitive conditions and cannot dealt with effectively by less drastic measures, but that the monopolist’s market power is not based on superior efficiency. Third, under most U.S. proposals restructuring is the only remedy available while under the Israeli approach dissolution is seen as a remedy of last resort. This difference is based on the different approaches taken towards conduct regulation, as elaborated in the next section. Fourth, while U.S. proposals defer relief for a specified time, the Israeli Act does not include any time frame for relief. The rationale behind U.S. proposals is to ensure that market forces cannot erode the monopolist and to minimize the disincentive effect. The Israeli approach does not seem to take these factors into account. Although restructuring is regarded as a remedy of last resort, to be implemented only after conduct regulation has been tried and failed or is initially doomed to failure, conduct regulation takes away at least some of the monopoly profits with no time limit.

The Israeli approach mitigates some of the difficulties involved in break-up by employing four methods. The first is a requirement that restructuring be based on a request filed by the Director. This ensures that requests for restructuring are reviewed by the competition authorities and provides another check to ensure that structural

208 Section 50 of the Act states that any violation of the Act constitutes a private tort. However, section 31 clearly requires that a request for dissolution be made by the Director.
remedies are applied only where they are efficient. The second mitigating factor is the requirement that restructuring be used only where the public is severely harmed. The third method is placing the onus of proof on the Director who must prove not only that the public was severely harmed by the monopolist's conduct and that dissolution can produce efficient results but also that conduct regulation has failed or is likely to fail.

The fourth factor is the requirement that restructuring be used as a remedy of last resort. However, the efficacy of this requirement is debatable. The informational problems involved in conduct regulation surely affect the ability of the Director to prove that conduct regulation is not an effective solution. The fact that the Director has not requested such a remedy might be regarded as an indication of this difficulty. At the same time, using restructuring only as a remedy of last resort also reduces the disincentive effect, although the potential for break-up is still present. Yet it might be more efficient to empower courts to restructure as a first choice while resorting to conduct regulation only if restructuring is problematic. It might also be efficient to defer regulation of any kind for a specified period.

All of the small economies surveyed except Israel have not adopted structural remedies for mere monopoly but rather have opted for conduct regulation. An important question is whether this is an efficient policy. Structural remedies produce a stronger disincentive effect than conduct regulation given that the firm will lose its dominant position and all or most of its monopoly profits are likely to be eroded. The firm's owners will receive only the market value of the separated units created by dissolution and thus will lose the premium created by market power. On the other hand, efficient restructuring provides the best remedy for dealing with mere monopoly. It not only avoids the practical problems of conduct regulation but also avoids its on-going regulatory costs by creating conditions for market forces to perform the regulatory task. Given the last consideration, it is argued that once an economy opts for regulation of mere monopoly, it should adopt structural measures to be applied where appropriate. While structural solutions may not be effective in many concentrated industries, they may be effective in others. Nonetheless, given the high costs involved in restructuring, it should be used only when it is certain that market
forces cannot erode the monopoly and where market power is substantial. Also, the disincentive effect can be reduced by deferring the relief for a specified period of time.

II. Conduct Regulation of Mere Monopoly

Another way to address the monopoly problem is by subjecting the monopoly, without need of proof of anti-competitive conduct, to conduct regulation. The high level of price, the restricted output, or other specified trading conditions constitute, in themselves, a cause for regulation. No intent or anti-competitive conduct is required in order to regulate the monopolist’s conduct. Rather, the law focuses solely on the harm to consumers. In so doing, the law creates safeguards from monopolistic activity while not condemning monopoly per se. This method assumes much in the ability of courts or government agencies to set correctly the price, output and other trade terms of the dominant firm.

Conduct regulation has been adopted in many small economies, including Malta, New Zealand, and Israel. Although all jurisdictions do not require proof of anti-competitive conduct or intent as a prerequisite to regulation, other aspects of conduct regulation diverge significantly from one jurisdiction to another (e.g. scope of conduct regulated, procedure, experience and expertise of regulators, remedy). The efficacy of conduct regulation depends, inter alia, on these factors. For example, limiting only extremely high prices reduces the disincentive effects and the distortions of price signals in the market. However, it is a limited tool in that it reduces harm to consumers only when prices are extremely high. Also, the difficulty of specifying clearly the level of price above which the monopoly pricing will be regulated might create disincentive and distortion effects above and beyond those intended by the legislature. This section analyses the comparative effect of different regulatory regimes. The examples are placed upon a continuum from the least interventionist approach to the most interventionist.

This section focuses on regulation by competition laws. Nonetheless, monopoly pricing is sometimes regulated by other laws which are usually remnants of laws which were used to regulate markets in times before or during the transition towards more
competition-oriented markets.\textsuperscript{209} Almost all jurisdictions, big and small alike, regulate the terms of service of essential facilities.\textsuperscript{210}

\textbf{Israel: Regulation of trade terms when the public is harmed}

Following a request by the Director or a consumer group, the Israeli Competition Tribunal may mandate the monopolist to take steps which are necessary in order to eliminate the current or future harm to the public resulting from the price, quantity or quality of a product or a service supplied by it.\textsuperscript{211}

The most common remedy is the issuance of decrees that regulate aspects of the monopolist’s business decisions, such as quality of service, hours of operation, and credit terms.\textsuperscript{212} The decrees contain a time limit, after which the competition authorities might engage in another investigation to determine whether to request the Tribunal to issue a similar decree or to amend the terms set in the decree to take into account new circumstances, or whether such decree is no longer necessary. In using its regulatory powers, the Tribunal may also set the monopolist’s prices. However, price regulation is used only in rare cases.\textsuperscript{213} The reason is two-fold. First, The Israeli Product and Service Surveillance Act sets maximum prices of certain products and services supplied in the Israeli market.\textsuperscript{214} Second, given the difficulties involved in setting efficient prices, it is

\textsuperscript{209} Australia’s Price Surveillance Act; Israel’s Product and Service Surveillance Act 1957 and Stable Product and Service Prices Act 1985; Cyprus still controls the prices of ten products. However, it is expected that this direct price control will soon be abolished. See George Mytides, “Competition and Consumer Protection Division,” (presented at the International conference on competition and competition law in small economies, Malta, May 23-5 1998). In past years the scope of direct price regulation by has been reduced substantially. But even in those jurisdictions that still apply price control the task is commonly transferred to the competition authorities. This indicates that most jurisdictions prefer to place price control within the larger context of competition policy rather than to consider it a separate branch of economic policy enforced by separate authorities.

\textsuperscript{210} See chapter 5 below.

\textsuperscript{211} Section 30 of the Israeli Trade Restrictions Act 1988. For the application of section 30 to future harm see Dubek, supra, note 207, at p. 15. The test which was applied in that case was “reasonable possibility of material harm to competition”.

\textsuperscript{212} See, for example, Decree under the Trade Restrictions Act - Concrete Market (Payment and supply terms) 1981, k"t 4253; Decree under the Trade Restrictions Act -Paper Market (terms for the supply and production of paper) 1981, k"t 4257.

\textsuperscript{213} Discussion with the Israeli Director dated May 26, 1998.

\textsuperscript{214} Israel’s Product and Service Surveillance Act 1957 and Stable Product and Service Prices Act 1985. The goal of these Acts is to prevent monopolistic firms from abusing their market power by setting prices above the competitive level. Dubek, supra, note 207, at p. 40-1.
avoided in most markets. The decrees should limit the monopolist’s freedom of trade only to the degree necessary to eliminate the harm to the public.215

In addition, the Director may mandate a monopolist to subject its typical contracts to the scrutiny of a special contracts court and to require that its products—whether locally produced or imported—meet the standards set in the Israeli Standards Act.216

The Israeli regulatory system is interesting in that regulation is performed by the Tribunal, albeit it must be based on a request filed by the Director or by an authorized consumer group. The judicial process faces all the obstacles enumerated in section 4.2.2.B above. Nonetheless, some of these problems are mitigated by the requirement contained in the Act that at least one of the members of the Tribunal have economic expertise and by the dominant role played by the competition authorities and by consumer groups in investigating and monitoring the conduct of monopolies. Another interesting aspect is the limitations placed on potential plaintiffs; only the Director and an authorized consumer group can file a request. By so doing, the law provides another check that conduct regulation is used only where harm to the public is appreciable. While the law does not differentiate between monopolies that can be eroded by market forces and those which cannot, the wide discretion granted to the Director and the Tribunal can be used to intervene only in markets where market forces alone cannot regulate monopoly conduct. The law’s scope of application is also unique. Its scope is very wide, applying to many aspects of the monopolist’s business decisions. The fact that the Tribunal has such extensive regulatory powers surely increases the disincentive effect. At the same time, regulation of conduct other than price can be more effective. It can combat specific practices that cannot be labeled as anti-competitive since they are not exclusionary or predatory, but harm consumers nonetheless. The disincentive effect might even be reduced if the law, as applied in practice, is less interventionist than price regulation.

215 Dubek, ibid, at p. 15.
Britain: Trade term regulation when the public is harmed

The conduct of a dominant firm is also regulated in the U.K. There, too, the emphasis is on the way in which monopoly power has been used rather than how it was acquired. The objective is to intervene in markets where it has been determined that monopoly power has been exercised in a way contrary to the public interest.

The British system differs from the traditional model of competition laws in that it is based on a highly discretionary and pragmatic administrative system.\(^{217}\) The Monopolies and Mergers Commission (MMC) investigates industries in order to determine whether a firm holds a dominant position in the market and whether this position is exploited contrary to the public interest. The process is highly expert and discretionary, involving hearings and gatherings of fact. Its findings are then reported to the Secretary of State and, where appropriate, contain recommendations for action. For example, where it finds prices or profits to be excessive it is open to it to recommend price or profit regulation.\(^{218}\) The Secretary of State may then direct the Director General of the Office of Fair Trading-whose role is to supervise and oversee competition and consumer policy in Britain- to seek undertakings from the dominant firm with a view to promoting the public interest. Failing this, an Order may be made directing the dominant firm to take, or refrain from taking, certain action. There is no participation by judicial bodies in this procedure. The MMC has wide discretion, as the law does not define the public interest and the government is unable to act against a dominant firm unless the MMC considers that the public interest has been adversely affected. This discretion is, however, limited by the inability of the MMC to initiate an investigation of industries which are not referred to it by the Director General and by the absolute discretion of the Secretary of State as to whether to follow the MMC’s recommendations. Another

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\(^{217}\) The British competition policy has recently changed to be more synchronized with the EU system. The test above refers to the previous system.

\(^{218}\) See, for example, MMC Reports on Contraceptive Sheaths (1974 and 1982)(no price competition existed and there was no likelihood of the dominant firm’s market share being eroded. As a result of the first report prices were regulated on the basis of a maximum permissible rate of return. This method of control was rejected in the second report as involving particular practical difficulties with regard to the calculation of capital costs and profit figures. Moreover, the MMC accepted that such regulation weakens the incentives to improve efficiency. Price control was therefore based on an index of input costs); Report on White Salt (1986)(price regulation was the only practicable way to break the link between the high costs of one firm and the prices of another operating in the market); Report on Opium Derivatives (1989)(MMC recommended a prohibition against any price increase for three years).
important feature is that there is no private right of action against the monopolist. However, individuals may bring suit against the monopolist based on the abuse of dominance provision of the Treaty of Rome, surveyed below.\textsuperscript{219}

**Malta: Regulating prices of essential goods or services**

Malta is another example of a small economy which regulates the conduct of mere monopoly, although only monopoly pricing. The Maltese *Competition Act* empowers the Director of the Office for Fair Competition to issue price orders prescribing the maximum price at which essential goods or services may be sold or offered.\textsuperscript{220} Within six months of its publication, the Commission reviews the price order, which is in essence an administrative tribunal with at least one economist on its panel. In the interregnum period until the time the Commission has reached its decision the order is enforced. Once the Commission finds the price order appropriate and necessary, it remains in force for a year after the Commission’s decision. In practice, the Director has used this power in order to regulate the price of products of specific monopolies, such as local beer, although such monopolies could instead be challenged under the abuse of dominance provision which prohibit excessive pricing.\textsuperscript{221}

Similar to Israel, there is a significant role both for the Director and for an administrative and expert tribunal. Yet unlike in Israel, the tribunal plays only a supervisory role while the Director plays the central role. Judicial review is exercised only after a price order is issued. The Director is given extremely wide discretion: no determination of dominance is necessary- the Director is required to focus on the essentiality of the product rather than on the firms involved. The law also does not limit the discretion of the Director as to when to issue a price order once essentiality is proven.\textsuperscript{222} Such price orders have the advantage of immediacy and of eliminating judicial obstacles. Also, the Director may use its wide discretion in order to challenge only firms whose market power cannot be eroded by market forces. On the other hand, the law

\textsuperscript{219} Frazer, *supra*, note 59, at p. 32-42. As British competition law is currently being revised, its procedures may be subject to changes.

\textsuperscript{220} Section 11 of the Maltese *Competition Act 1994*.

\textsuperscript{221} Section 9 of the Maltese *Competition Act 1994*.

\textsuperscript{222} Simonds Farsons Cisk Limited v. Acting Director of the Office for Fair Competition (Case 1/1996).
provides no guidance as to how the Director should limit the applicability of price orders. This, in turn, can create a great disincentive effect to becoming a monopolist as the Director might also use these broad powers to challenge alleged anti-competitive conduct instead of challenging firms under more suitable provisions which require a much longer and less discretionary procedure.

In addition, Malta still has a set of regulations that regulate the prices of specified products.

**New Zealand: Direct price regulation by the competition authorities**

In New Zealand it is not unlawful for a firm to be a monopolist or to achieve monopoly status by market superiority or growth. In the 1975 version of the *Commerce Act* there were provisions which enabled a court to divest firms with market power. These provisions were repealed and today at most there are provisions which prevent a firm from acquiring (or strengthening) a dominant position in a market by a merger or a business acquisition. Section 36 of the Act, dealing with the use of dominant position, does not prohibit monopoly pricing.

Price regulation is nonetheless available through a special provision in the New Zealand *Commerce Act*. Part IV of the Act enables goods or services to be placed under *direct price control* by the Commerce Commission where the Minister of Commerce determines that there is limited competition in the market and it is necessary or desirable for prices to be controlled in the interests of users, consumers or suppliers. The price orders may refer specifically or generally to goods or services and may apply to specific areas, specific characteristics of goods or services, and specific persons. Although the provision has not been used to date, it can be viewed as a threat which may constrain the pricing behavior of dominant firms.

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223 *Electricity Corporation Ltd v. Geotherm energy Limited* [1992] 2 NZLR 641 ("[section 36 of the commerce act] is not breached merely because a person in a dominant position competes. Such competition is the very matter the Act is intended to enhance." p. 646).

224 *Telecom Corporation of New Zealand Ltd v. Clear Communications Ltd.* (1995) 1 NZLR 385; *New Zealand Rail Limited v. Port Marlborough NZ Ltd.* (unreported, court of Appeal) at p. 5.
An important similarity among all jurisdictions surveyed is that the competition authorities play an important role in administering conduct regulation.225 The courts have, in most jurisdictions, a limited role, if at all. This leads to an additional similarity. All jurisdictions surveyed -except Israel- do not require a traditional judicial process in order to regulate the conduct of dominant undertakings. Rather, an administrative and highly discretionary procedure conducted by the competition authorities is adopted. By so doing, many of the institutional limitations inherent in a judicial process, such as proof-related and procedural requirements, are avoided. The competition authorities, if given sufficient resources and if staffed by expert economists, may regulate monopoly conduct as effectively as a direct regulator. Moreover, they can avoid some of the regulatory capture problems since they have a broad mandate and are not dependent on one specific industry for their existence. It is nonetheless important to set clear guidelines as to how the competition authorities should use their powers and to provide checks on the use of such power. This will both ensure the proper use of the regulatory powers and limit the disincentive effect. Yet the need for flexibility and the definitional problems in setting clear boundaries to conduct regulation have led all jurisdictions surveyed to grant the regulator broad and highly discretionary powers. The disincentive effect is also enhanced by the fact that although in most jurisdictions regulation is performed ex post- after the monopolist has engaged in the specified conduct, in none is the relief deferred in order to enable the monopolist to gain some profits from its dominant position. The disincentive effect can be at least partly reduced by limiting the parties that can request conduct regulation or by limiting the scope of regulation.

Important differences among the regimes adopted by different jurisdictions include the scope of regulation and its timeliness. Jurisdictions differ in the scope of their conduct regulation provisions. These range from application to any conduct that harms the public interest (Britain) to the regulation of price only (Malta). Timeliness of regulation also ranges widely. While in some jurisdictions the conduct of dominant firms

225 Other jurisdictions that adopt conduct regulation include Germany (section 22(4) of the Act against Restraints of Competition); Netherlands (section 24 of the Economic Competition Act); Belgium (article 14(5) of the Act on Protection against the Abuse of Economic Power). Conduct regulation is implemented through the general powers against restrictive business practices in many other jurisdictions, including Denmark, Norway, Ireland, Sweden, and Switzerland. See Market Power and the Law (A report of the Committee of Experts on Restrictive Business Practices, OECD, 1970) at p. 154-6. To update!
is regulated only after it is found that the public is harmed from the monopolist's conduct, in others regulation can be instituted beforehand, by the setting of performance or conduct variables (e.g. setting maximum prices, supplying certain buyers). Both parameters should be set by weighing their disincentive effect against their efficiency.

From an administrative perspective, some jurisdictions use a registration system in order to aid the administrative process of regulating monopolies. In Israel, for example, the Director may declare a firm a monopoly once he is convinced that it meets the definition included in the Act (50% market share or a lower market share where the Minister of Commerce has declared a lower share to be sufficient). The declaration is published in public records which are open to the public, and the firm declared a monopoly is informed of such declaration. Although the declaration, in itself, is declarative rather than constitutive, such declaration is sufficient to subject the firm to the above regulatory powers of the Director and the Competition Tribunal. In addition, the declaration may be used as a rebuttable presumption of monopoly in any legal proceedings against the monopolist, such as abuse of dominance proceedings. Other jurisdictions have adopted a system of compulsory notification and/or registration of market dominating enterprises. In some jurisdictions, such as Austria, the registration serves only for the purpose of informing the enforcement agencies and the public about the existence of market dominating enterprises. In other jurisdictions it also facilitates the control of their conduct. In Norway, for example, dominant enterprises must submit each year an annual statement of accounts and a report on their activities to the Price Directorate. The main advantage of registration systems is that the registered enterprises and the public are given clear notice of the fact that they are subject to control as market dominating enterprises. It is effective if it reveals facts of which the enforcement agencies and the public have not sufficient knowledge.

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226 Section 26 of the Israeli Trade Restrictive Practices Act 1988. Examples of declared monopolies include the following: Nesher Israeli Cement Manufacturers which controls approximately 95% of the cement market; Fenitzia Glass Manufacturers Ltd, which is the only manufacturer of glass containers in Israel; Taman Paper Industries Ltd. which holds a monopoly in manufacturing of paper bags.

227 Ibid.

228 Para. 43(E) and 26(A) of the Israeli Trade Restrictive Practices Act 1988.

229 Section 36(d) of the Austrian Cartel Act.

230 For an extended analysis of a notification system see chapter 8 below.
4.2.4.3 Trade Terms as Abuse of Dominant Position

Some jurisdictions treat certain trade terms, most commonly monopoly pricing and output strategies, as abuse of monopoly power. This position has been widely adopted by many jurisdictions following the lead of the EC, such as Malta, Cyprus, Sweden, Israel and most EC members. Like mere monopoly conduct regulation, this approach assumes much in way of the ability of courts to distinguish monopoly trade conditions from competitive ones and to set competitive terms. However, unlike mere monopoly regulation, this approach condemns certain types of conduct. The strengths as well as the weaknesses of this approach can be well illustrated by the experience of jurisdictions which have adopted this approach. The examples are placed upon a continuum from the least interventionist approach to the most interventionist. Given vague concepts of what constitutes abusive trade terms, much depends on the interpretation adopted by competition authorities and courts.

Regulation can be implicit or explicit. While many jurisdictions have adopted a provision which states clearly that certain trade terms constitute an abuse of monopoly power, in others such as Australia such regulation is a creation of case law. Implicit regulation usually applies to monopoly pricing under the abuse of dominance provisions, most commonly under refusal to deal. Although abuse of dominance provisions will be dealt with extensively in the next chapter, several observations are warranted. Abuse of dominance provisions focus on the conduct of a monopolist that is exclusionary or predatory in nature, in other words, conduct that is aimed at creating an advantage for the monopolist which is not based on natural market conditions or its superior performance. The ultimate goal of such conduct is to drive competitors out of the market or to raise rivals’ costs in order to gain power over price. Thus, monopoly pricing is the ultimate goal of such strategies. It is sometimes confused with monopoly pricing *per se*.

Most confusion arises in vertical integration cases where the monopolist is partially integrated into the competitive downstream (or upstream) market, or attempts to fully integrate into it. In constructive refusals to deal monopoly pricing of an intermediate good by a monopolist who also competes with its customers in a competitive market is aimed at forcing its competitors out of the market or at imposing a “price squeeze” which
has the effect of raising rivals’ costs. But since monopoly pricing is the expected behavior of a monopolist, refusals to deal cannot be distinguished only by the ultimate pricing conduct. Monopolistic purpose to eliminate competition or raise rivals’ costs must not be discerned from the mere charging of an excessively high price. Not all courts succeed, however, in distinguishing between the two.

EC: “Inequitable” Prices or Trading Conditions Constitute an Abuse of Power
The EC prohibits some monopoly pricing strategies and some trading conditions per se. Section 86(a) of the Treaty of Rome provides as its first example of abuse “an imposition of any inequitable...prices or of any other inequitable trading conditions...” The provision has been interpreted as prohibiting, inter alia, excessive pricing. There is no need to prove that competition has been harmed. The prohibition is thus a consumer protection measure, rather than a device to protect competition. The remedy is a civil fine which may be accompanied by an injunction. Given the effect and implications of this EC prohibition for many jurisdictions which have adopted laws based on article 86 of the Treaty of Rome or look to its case law for direction, it must be carefully analyzed.

The objection to excessive pricing or “inequitable” trading conditions is that the monopolist is using its monopoly position in order to “reap trading benefits which it would not have reaped if there had been normal and sufficiently effective competition.” It follows that the dominant firm bears special duties not to fully exploit its monopoly power or not to create too great short-run allocative inefficiency in the market. This approach takes limited account of the disincentive effect or of the fact that in the absence of high barriers to entry high prices may be regarded as pro-competitive in that they will attract new entry.

The position adopted by the EC towards monopoly pricing can be partially explained on several grounds. First, the Treaty of Rome does not apply to the acquisition of a dominant position. This, in turn, requires a stricter policy towards the consequences

231 Frank Easterbrook, “The Inevitability of Law and Economics” (1989) 1 Legal Education Rev. 3.
232 In Sirena the court said that although the price level may not be an abuse by itself, a high price may, “if unjustified by any objective criteria and if it is particularly high, be a determinative factor.” Sirena v. Eda (1971)E.C.R.69, at p. 84 [1971-3 Transfer Binder] Common Market Rep. (CCH) 8101, at 7112.
233 Frazer, supra, note 59, at p. 47.
234 United Brands, supra, note 51.
of market power, including monopoly pricing. In comparison, Section 2 of the *Sherman Act* applies both to the manner in which monopoly power was acquired and to how it is exercised. Second, the EC is less skeptical than other jurisdictions about the efficiency of regulation. Third, the prohibition builds on European fundamental dislike of bigness and on the goal of allowing "freedom to compete" to small enterprises which is found in the preamble to the *Treaty of Rome*. Although the Treaty can also be read as aiming to achieve economic efficiency, a free market economy and a desire to raise European businesses to standards capable of competing on world levels, the Commission and the European Court of Justice ("ECJ") restrain big businesses in order to assist smaller enterprises to compete.235

The legal standards applicable to unfair pricing or trading conditions are not defined by the law, and have been left to judicial interpretation. As excessive pricing is the one of the most important and debatable prohibitions, I shall focus on it. In four cases the ECJ considered the question whether the Commission was right in finding that a dominant firm had in fact maintained excessive prices and thereby abused its dominant position. In one of these cases the ECJ reversed the findings. All cases where abuse was found were "easy cases" for calculating price differences.236 Several additional monopoly pricing allegations did not reach the Court since the dominant firm agreed to reduce its prices.

Monopoly pricing was first considered by the ECJ in *General Motors.*237 Belgium had delegated to all automobile manufacturers' representatives the duty to inspect and issue certificates of conformity to all vehicles entering the country. For a short period General Motors charged a very high fee for this service, thus creating entry barriers for parallel imports from Germany. When its customers complained, GM immediately gave refunds. The Commission charged and found that GM had a dominant position in granting certificates of conformity for its automobiles crossing the Belgian border and

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235 ECLR 96.
that the high fee was an abuse of a dominant position. GM sued for annulment. On the question of abuse, the Court determined that a firm could abuse its dominant position by charging a price "which is excessive in relation to the economic value of the service provided, and which has the effect of curbing parallel imports by neutralizing the possibly more favorable level of prices applying to other sales areas in the Community, or by leading to unfair trade." In that case the excessiveness of the price was deduced from the fact that, on receiving complaints, the dominant firm had reduced it to twenty five percent of its original value. In view of GM's immediate refunds, however, the Court found no actionable abuse.

In the second case, United Brands, the court required a more sophisticated calculation of the relationship between price and economic value. United Brands sold its Chiquita bananas at widely disparate retail prices and charged different prices to ripener-distributors in different member states, based on varying national preferences, different availability of fruits, and differentials in currency. Its prices in Belgium were on average 80% higher than its prices in Ireland. Using the price in Ireland as the benchmark for a fair price, the Commission determined that higher prices were unfair and ordered it to reduce its prices by at least 15%. The Court of Justice annulled the decision since the Commission had not proved prices were excessive. The Irish prices were set at levels below cost as a means of breaking into the market, and thus could not serve as a benchmark for competitive prices.

In dictum the ECJ gave some insights into the character of the offense. First, one must determine whether the difference between cost and price is excessive. The court required the Commission to have regard to production costs in order to determine the excessiveness of prices. Local market conditions such as distribution costs and marketing should be relied on to determine the level of profit realized and whether or not the

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238 As was noted in the section concerning market definitions (section 4.1.3 supra), the EU erred in its market definition in the GM and British Leylands cases, as the market was too narrowly defined to include intra-firm competition (parallel imports) rather than inter-firm competition. The following discussion takes these market definitions, and the findings of market power based on them, as a given and discusses the tests they establish for excessive pricing assuming these findings are correct. While market definition is highly relevant to the correct economic analysis of the case, it is irrelevant to the substantive tests established for excessive pricing once market power is established, which tests are discussed in this section.

239 Ibid.

240 United Brands, supra, note 51.
differential price is capable of objective justification. If the answer is in the affirmative, then the question becomes “whether a price has been imposed which is either unfair in itself or when compared to competing products.”

The Court’s tests for excessive pricing were whether the absence of effective competition enabled the dominant firm to reap abnormal trading benefits based on the difference between selling and production costs. The Court noted that average differences between United Brands’ bananas and those of its rivals were about 7 per cent which, it concluded, “cannot automatically be regarded as excessive and consequently unfair”.

The third case is *British Leyland v. Commission.*242 The court reaffirmed the principle that a price will be excessive where it bears no reasonable relation to the economic value of the product supplied. British Leyland, a motor-vehicle manufacturer, was found to enjoy a legal administrative monopoly as a result of the applicable rules for the issue of certificates of conformity, which are required for the registration of vehicles manufactured by it in Britain. One of the allegations was that Leyland charged a high fee for granting such certificates to importers of its vehicles. Its objective was to create barriers to entry for such importation of its vehicles, especially from Belgium where they were sold for much lower prices. The allegations were based on the fact that it increased the fee for certificates for left-hand-drive vehicles from 25 pounds to 150 pounds for dealers and 100 pounds for private individuals, while continuing to charge 25 pounds for right-hand-drive vehicles. Following the Commission’s criticism of its pricing policy it introduced a uniform fee of 100 pounds for the issue of left-hand-drive vehicle certificates. Since the proceedings began it reduced its fee to 50 pounds. The ECJ found that the issuance of a certificate is a simple administrative task that does not entail significant costs. There is also no cost justification for a significant difference between the price of a left-hand-drive and a right-hand-drive vehicle. The court thereby rejected a claim to reduce the fine imposed by the Commission on Leyland.

This case is an easy case for calculating price rises. The differences between the prices charged by Leyland for its certificates (600%) and the extremely low costs of

producing the certificate posed no real problem for the Court in determining excessiveness of a price.

In some industries production costs may not be an appropriate indicator of excessive pricing. The ECJ has recently considered this problem in relation to charges levied by a copyright management society. In Tournier\textsuperscript{243} the ECJ held that where a dominant firm's charges are 'appreciably higher' than corresponding charges in other member states, that will be \textit{prima facie} evidence of abusive conduct. The difficulties experienced in making proper cross-frontier price comparisons imply, however, that future cases in this category will be brought only in circumstances of flagrant abuse.

While all cases to date deal with excessively high prices, excessively low purchase prices may also come under the scope of Article 86. The exercise of significant monopsony power on the part of dominant buyers forcing suppliers to sell at uneconomic low prices could be regarded as an abuse.

Monopoly pricing is also attacked, although indirectly, by prohibitions placed on limitations of output by dominant firms. Section 86(b) of the Treaty prohibits limiting production, markets or technical developments to the prejudice of consumers. Limitations on production might consist of the unilateral fixing of production quotas by the dominant firm, the stipulation as to maximum quantities which may be produced by a licensee under an industrial property license, etc.\textsuperscript{244}

The EC's condemnation of monopoly pricing illuminates the practical problems involved in monitoring the pricing decisions of dominant firms. Two main problems arise: determining the costs and profits of the dominant firm and determining when a price is excessive. The ECJ's treatment of both issues has been subject to criticism. On the first issue, the ECJ's willingness to accept industry accounting cost figures where the actual costs of the dominant firm could not be determined has been criticized.\textsuperscript{245} Moreover, the Court has disregarded the difficulties involved in calculating and


\textsuperscript{245} Frazer, \textit{supra}, note 59, at p. 48.
apportioning production cost figures, especially in the context of complex corporate structures with a wide product range or multinational production facilities.

On the second issue, excessiveness of price was never clearly determined. The ECJ defined a price as excessive when it has no reasonable relation to economic value. Even if the price is excessive in itself, it stated, it should be considered whether it is unfair "either in itself or as compared to competing products." All the prongs of this decision do not provide clear guidance. It is unclear where to draw the line between high and excessive price; when the value received by a dominant firm begins to be grossly disproportionate to the value given; what margin of profit should a dominant firm be allowed. Comparison to prices charged by other competitors may also not be helpful. Small or inefficient competitors might have different cost structures. Moreover, competitors might take advantage of the monopolist's price umbrella, so that comparison of the dominant firm's price with its competitor's price might be irrelevant. In the two cases where the Court has found prices to be excessive (General Motors and British Leyland) the firm had 100% of the defined market, given that both involved a legal administrative monopoly. In such cases there is often no control group or a comparator against which the price may be measured.

These formidable problems of identification and surveillance have led the Commission to devote only minimal resources to monopoly pricing cases. The Commission has acknowledged the difficulty of ascertaining in any given case whether an abusive price has been set, for "there is no objective way of establishing exactly what price covers costs plus a reasonable profit margin." However, it must be born in mind that the number and type of cases litigated does not necessarily indicate the influence the law has on the undertakings operating in the market. It might well be that the prohibition has influenced firms not to charge the highest prices they could obtain from the market. As no studies on this subject are known to the author, this issue remains speculative.

An additional problem inherent in any prohibition that resembles article 86(a) of the Treaty of Rome is that it does not distinguish between monopolies which can be

246 Singleton, supra, note 243, at p. 325.
247 Commission, Fifth Report on Competition Policy (1975), point 3: "measures to halt the abuse of dominant positions cannot be converted into systematic monitoring of prices."
eroded by market forces and those that cannot. In so doing, the law does not allow market forces to take their course. It also does not distinguish between monopolies based on superior efficiency and those that are not and thus reduces the incentives of all would-be monopolists alike. The costs of such a policy can easily outweigh its benefits, especially where the term “inequitable prices” is defined to be at any level above the competitive level. This problem is exacerbated in jurisdictions where the threshold definition of monopoly is very low and thus many firms come under the scope of the monopolistic prohibition. Thus, application of the EC approach is likely to be problematic. Adherence to a more economically oriented approach based on the effects of monopoly pricing might be more efficient. Price regulation should thus be a solution only where there is no possibility for reviving price competition among existing firms or facilitating new entry. But where the market is not permanently disabled it is likely to further remove the possibilities for the natural operation of the self-correcting market mechanism.248

An interesting attempt to solve the lack of clarity involved in monopoly pricing prohibitions has been undertaken in Malta. Malta has adopted an abuse of dominance prohibition which is taken almost verbatim from the Treaty. Its law also refers to the case law of the European Commission and the ECJ for defining further and for supplementing its provisions. The Maltese Competition Act attempts to solve the definitional problem of excessive pricing by including a non-exhaustive list of factors taken mostly from EC case law and which the Maltese Commission is obliged to consider. One factor is the relation of price to production costs. Another is the comparison of the price to prices being charged by other producers in the local market or by the same undertakings in foreign analogous markets. The Commission must also take account of “the economic or other risks associated with bringing the product into the market” and “the expected, probable or possible charges in the market for the product” as well as “the importance of the product to consumers”.249 The Maltese Commission is thus required to make an in-depth market analysis to determine excessive pricing. However, even this extensive list of factors does

248 Frazer, supra, note 59, at p. 42.
249 Section 9(5) of the Maltese Competition Act 1994.
not succeed in clarifying the concept of an "unfair price."\textsuperscript{250} Other small jurisdictions which have also adopted provisions which define unfair purchase or selling prices as a competition law violation include \textit{Israel}\textsuperscript{251} and \textit{Cyprus}.\textsuperscript{252}

\textbf{Australia: Case-law made prohibition against certain monopoly pricing strategies}\textsuperscript{253}

Australia serves as an example of a case-law made prohibition against certain monopoly pricing strategies. As in the U.S., the basic rule adopted in Australia is that the abuse of dominance provision (section 46 of the \textit{Trade Practices Act 1986}) does not condemn mere monopoly or prevent the extraction of the highest price that the market can bear.\textsuperscript{254}

Analysis of Australian case law reveals, however, a different picture. The test adopted by Australian courts to distinguish monopolistic behavior from competitive conduct in \textit{abuse of dominance cases} is whether similar conduct to that in issue could have been engaged in by a firm operating in a competitive market. It focuses on the linkage between substantial market power and the conduct complained of and is based on the assumption that any action that is uncharacteristic of a competitive firm is an unlawful exercise of market power. As the analysis below will show, this competitive environment test has been interpreted broadly enough to condemn some monopoly

\textsuperscript{250} Eugene Buttigieg, "The Notion of Dominance and the Control of Abusive Pricing Under Maltese Competition Law" (Submitted in the International Conference on Competition and Competition Law in Small Jurisdictions, Malta, May 1998).

\textsuperscript{251} Section 29A(a) of the Israeli \textit{Trade Restrictions Act 1988} provides that: "a monopolist is presumed to abuse its market power in a manner which may reduce competition or harms public policy where it sets unfair buying or selling prices for the product in monopolistic supply or demand." The Israeli example is interesting in that the legislature recently added the above provision to the existing regulatory powers provided in the Act for the regulation of mere monopoly and the regulation of unreasonable refusals to supply. The statutory explanatory memorandum states that the provision was added since experience has shown that there is a need to clarify some of the situations in which a monopolist's actions will amount to abuse of its power. However, the adopted provision goes beyond clarifying the existing prohibition on refusals to supply. Monopoly pricing does not, in itself, involve anti-competitive results. It does not protect or augment market power or extend it to other markets. Limiting the pricing freedom of the monopolist without requiring anti-competitive intent creates a new violation that did not amount in the past to a violation of the Act.

\textsuperscript{252} \textit{Cyprus Competition Act}.

\textsuperscript{253} This section draws heavily on Kathryn McMahon, "Refusals to Supply by Corporations with Substantial Market Power", (1994) 22 Australian Business Law Review 7.

\textsuperscript{254} \textit{ASX Operations Pty Ltd v. Pont Data Australia Pty Ltd.} [1991] ATPR 41-069 ("S. 46 does not strike at 'monopolists' or those in a 'monopolistic position'. Nor does it look to the attainment of a 'commercially reasonable' result...Therefore, it is no contravention of that provision by a corporation with a substantial degree of power in the market which it uses to obtain a particular price, provided that in doing so the corporation has not taken advantage of its power for the proscribed purpose" at p. 52,666)
pricing strategies *per se*. A monopoly position allows a monopolist to restrict output and increase price even if such position was obtained or is maintained without anti-competitive conduct, while in a competitive market it is assumed that a decision to price, consistent with profit maximization of the firm, is also the industry market price. Thus on the competitive environment standard setting price above the competitive market price may be treated as a misuse of market power.255

Despite statements to the contrary, in applying the competitive environment standard Australian courts have, in fact, condemned monopoly pricing *per se* in three cases where a monopolist has charged monopolistic prices to downstream firms with which it also competed. The first case is the landmark decision of the High Court of Australia in *Queensland Wire.*256 There, the alleged anti-competitive conduct was the setting of a monopolistic price for the Y-bar, which could not be easily obtained from any other source. The defendant’s stated purpose was to refuse to supply the bars, or to offer to do so at an uncompetitive price, because it wished to preserve to itself wholesaling of such bars. The Court applied the competitive environment test and found that the defendant had abused its monopoly power since in a competitive market the defendant would be highly unlikely to stand by without any effort to compete by reducing its price.257 Although the price at which the defendant should supply was not directly adverted to, the court commented that the price charged was “an excessively high price relative to other products [of the defendant]” and an “unrealistically high price,” and that Queensland Wire was not able to obtain supply at a “reasonable price.” The charging of a monopoly price thus constituted a constructive refusal to supply.258

The decision lacked an economic analysis to distinguish between a monopolistic purpose to eliminate competition or raise rivals’ costs from the mere collection of monopoly profits that might eventually attract new entry. Such analysis would involve more than the mere calculation of the competitors’ profit margin. Yet the High Court

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255 This is, however, a very simplistic application of this test. The same standard could have been applied more narrowly in that in essence both the monopolist and the firm operating in a competitive market are taking the maximum price that the market will bear. This interpretation was adopted by New Zealand courts. See, for example, *Clear*, supra, note 223.

256 *Queensland Wire*, supra, note 12.


merely deemed the high price charged by the defendant for the Y-bar to be a constructive refusal to supply with no analysis of leverage or the assessment of power gained over price. The more appropriate question to ask was what was the purpose of the refusal to sell\textsuperscript{259} and what were its economic effects.

The confusion about the imposition of monopolistic prices is also squarely presented in two other Australian decisions, \textit{O'Keefe Nominees Pty Ltd v. BP Australia Ltd}\textsuperscript{260} and \textit{ASX Operations Pty Ltd v. Pont Data Australia Pty Ltd.}\textsuperscript{261} In \textit{O'Keefe} the applicant was a wholesaler and a retailer in petroleum products who obtained bulk supplies from the respondent BP. O'Keefe supplied petroleum to independent service stations, which competed directly with service stations operated by BP and the other major oil companies. The Court found that BP had misused its substantial market power by imposing a price for its petroleum products that eroded the profit margin of O'Keefe and had the purpose of eliminating O'Keefe from the market. The proof of this purpose was established by the price itself which led to significant erosion of O'Keefe's profit margin. Yet the price itself was in accordance with guidelines published by the Trade Practices Commission in conjunction with the Prices Surveillance Authority. In addition, significant evidence of purpose was attached to subjective statements of purpose by the defendants that the major oil companies wanted the independents out of the market. There was no investigation into the purpose of the imposition of high prices. There was no consideration of the apportionment of costs between the wholesale and retail levels in order to determine what would be a \textquotedblleft fair price\textquotedblright{} or a \textquotedblleft living profit.\textquotedblright{} There was also no consideration of the relative efficiency of the retail competitors with the vertically integrated supplier or the defense of a legitimate business purpose, although the onus of proof of such considerations might have been placed on the defendant who did not raise such arguments. This focus on the competitor's profit margin for the final product can be criticized for diminishing the importance of competition analysis and the efficiencies gained from the monopolist's vertical integration at the second level of operation.\textsuperscript{262} It

\begin{footnotesize}
\begin{enumerate}
\item[259] Easterbrook, \textit{supra}, note 231.
\item[260] [1991] ATPR 41-109.
\item[261] \textit{Pont Data}, \textit{supra}, note 253.
\end{enumerate}
\end{footnotesize}
may be described as categorizing the imposition of high or monopolistic prices as a misuse of market power.\textsuperscript{263}

In *ASX Operations*, AXSO (the wholly-owned subsidiary of ASX) supplied stock exchange information to retail financial information companies such as the respondent, Pont Data, but also to its own retail services. The Court found that ASX had misused its market power *inter alia* by imposing an excessive fee structure.\textsuperscript{264} Again, there was no real attempt to examine the anti-competitive effects of the imposition of high prices. Rather, the court relied on subjective purposes and statements of intention found in internal company memoranda and affidavits. It still maintained that section 46 does not require a reasonable price nor does it prevent the extraction of the highest monopoly price.\textsuperscript{265} Yet it ultimately found that the imposition of these high prices constituted an anti-competitive purpose notwithstanding the absence of any anti-competitive analysis. The court further stated that there was insufficient evidence to constitute breach of section 45(2) dealing with contracts, arrangements or understandings that affect competition, which requires that the conduct "substantially lessen competition." The evidence demonstrated that there was vigorous and efficient competition and even an increase in competitors in the retail market, and therefore no lessening of competition. This further demonstrates the failure to examine the anti-competitive effect of the conduct under review in its analysis under section 46.

Based on the three cases surveyed above, it seems that high prices can constitute a misuse of market power merely on proof of a subjective purpose, which replaces economic considerations. They reveal a fundamental incompatibility between court statements that it does not violate the Act for a firm to charge profit-maximizing monopoly price and the court's findings. As McMahon argues, the Australian experience provides an example of how a failure to articulate the underlying purposes of the provision, together with a literal interpretation and a misguided reliance on subjective intentions, can lead to inconsistencies in judgements and to ultimate confusion and defeat of legislative purposes.\textsuperscript{266} Yet it must be emphasized that all cases involved vertically

\textsuperscript{263} McMahon, *supra*, note 252.
\textsuperscript{264} [1991] ATPR 41-069 at 52,068.
\textsuperscript{265} [1991] ATPR 41-109 at 52,666.
\textsuperscript{266} McMahon, *supra*, note 252.
integrated firms which competed with their customers. Such situations require non-trivial economic analysis to differentiate between mere monopoly pricing and monopoly pricing as a means towards an anti-competitive end, that may have led the courts to rely on readily observable indicators of the alleged conduct such as monopolistic prices.

A significant problem faced by the courts in determining that charging a monopolistic price has violated the law is the nature of any order which should be made in favour of the plaintiff. In Queensland Wire the High Court said nothing on this point. It simply referred the matter back to the trial Judge to make the order which, in his trial judgement, he said he was incapable of making. The case was ultimately settled on terms not to be disclosed. In the two other cases the court simply referred to previously agreed upon prices, without analyzing their effects or efficiency.267

An important issue focuses on the differences between conduct regulation of mere monopoly and conduct regulation of monopolistic activity through the abuse of dominance provisions. The two can be distinguished on the basis of their basic concept, disincentive effect, procedure, and remedies. Regulation of mere monopoly is based on the premise that there is no wrongdoing by the monopolist. The law merely provides for administrative powers to intervene in predefined cases. A direct prohibition, on the other hand, is based on the premise that the monopolist has illegally abused its power. This difference may affect the incentives of parties to engage in the regulated conduct, since firms may take steps not to be labeled as law violators as well as to avoid the quasi-criminal or the civil fines imposed by abuse provisions. At the same time and for a similar reason, such provisions create a stronger disincentive effect. The basic difference between the two regulatory methods may also affect the scope of the regulation and the remedies. A law prohibiting certain conduct must be much more definitive and explicit than one regulating mere monopoly. This, in turn, limits the flexibility of the regulator to deal effectively with a wide array of conduct resulting from a dominant position.

267 An interesting anecdote is that the Cooney Committee for the amendment of the Australian Trade Practices Act has rejected a proposal of the Trade Practices Commission to amend section 46 to control excessive pricing. The committee that considered that “excessive pricing is better dealt with under the Prices Surveillance Act,” seemed unaware that the effect of the above decisions is that such conduct is already prohibited under section 46.
Nonetheless, the broader the powers of the regulator the stronger the disincentive effect. It also affects the flexibility of the regulator in reaching an informal settlement with the dominant firm. Where a mere interventionary system is adopted, many jurisdictions take formal action only after informal settlement attempts have failed. This practice can help overcome some of the difficulties in taking corrective action. Where the law contains a direct prohibition, on the other hand, the regulator enjoys less flexibility, given that the dominant firm has violated the law.

The two approaches also differ in their procedural requirements. While mere monopoly regulation is performed, in most cases, by the competition authorities and has administrative aspects, abuse of dominance cases are usually tried by the courts in a judicial process and suffer all its inherent limitations, including proof of intent of engaging in the anti-competitive conduct. Also, mere monopoly regulation shifts most of the complexities involved in regulation from the determination of liability to the framing of appropriate relief. Once a dominant position is proven, relief can be granted. While the question of relief is a difficult one, its resolution takes place in a more informal and flexible procedural setting rather than the adversarial presentation of evidence on every issue.  

The remedies also differ. While no fault regulation sets parameters and limitations to the monopolist’s future conduct, abuse of dominance typically applies to conduct that took place in the past, although an injunction can also be issued. Also, in the former case relief is primarily of a regulatory character while in the latter it is primarily quasi-criminal (mainly monetary fines). At bottom, no-fault regulation, if efficiently applied, is a better tool to regulate mere monopoly than regulation through abuse of power provisions. Nonetheless, one can argue that a serious consideration for small economies in favour of adopting regulation through abuse provisions is the availability of ready-made European case law. Since small economies have limited resources, they should take advantage of existing regulatory regimes, even though such regimes might not be perfect. Even if this consideration is given decisive weight, the law should strive to clarify, to the extent possible, its scope of application.

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268 Neal, supra, note 202, at p. 380.
269 For an argument regarding the EC law network externality effect see Chapter 9, infra.
4.2.5 Summary and Conclusions

Condemnation or regulation of mere monopoly is problematic. Apart from distorting the incentives of firms to innovate and compete vigorously in the market, remedies have many drawbacks. In the U.S. the belief in the self-correcting forces of the market as well as the small percentage of markets which are characterized by single firm dominance and the problematic nature of government intervention have so far tipped the scale in favour of not regulating mere monopoly except in rare cases of essential facilities. In the EC trading conditions are regulated only in rare cases where they are deemed excessively unfair or where the monopolist is an essential facility. The EC approach is based, *inter alia*, on the goal of creating equal opportunities for all competing firms.

Small economies should not blindly adopt the approaches of large economies, given that some of the assumptions and considerations that hold in large economies do not hold in them. In small economies it cannot be assumed that market forces will deal effectively with market power and the effect of single firm dominance on the economy is likely to be much more pronounced. Monopoly provisions posited on the assumption that once abuse of monopoly power is prevented the markets will operate unregulated have limited efficacy in small markets. These factors have tipped the scale in many small economies in the other direction, i.e. in favour of regulating mere monopoly.

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<tr>
<th>Jurisdiction*</th>
<th>Condemning Mere Monopoly</th>
<th>Structural Regulation of Mere Monopoly</th>
<th>Conduct Regulation of Mere Monopoly</th>
<th>Conduct as Abuse of Dominance</th>
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*Jurisdictions are listed by size order

**Only where the monopoly is vertically integrated

Table 4.2: Regulatory measures of mere monopoly adopted by different jurisdictions.
Table 4.2 indicates that structural solutions were not adopted by many small jurisdictions. One explanation for this phenomenon is that structural remedies have limited applicability in small economies. Given the prevalence of scale economies, break-up may involve non-negligible trade-offs between productive and allocative efficiency. Nonetheless, given the greater effectiveness of dissolution in minimizing the costs of mere monopoly, small economies should seriously consider empowering courts to grant structural remedies where appropriate. The large disincentive effect that may be created by the potential application of such a remedy can be partly reduced by deferring this relief for a specified period and applying it only in limited cases of flagrant dominance not based on superior skill or on scale economies.

The inapplicability of structural remedies in many small industries implies that more weight should be given to conduct regulation, including regulation of monopoly pricing. Table 4.2 indicates that all small economies have, in fact, adopted some sort of conduct regulation. Conduct regulation should, nonetheless, be structured such as to minimize its costs. For instance, it is crucial to create a procedure that will enable the regulatory agency to regulate effectively, once conduct regulation is contemplated. Given that the traditional process of competition law violations is inappropriate to regulate the conduct of mere monopoly, many small economies entrust regulatory roles to the competition authorities and establish a highly discretionary and administrative process. Competition law in small economies is evolving in a new direction in which regulatory roles traditionally carried out by direct regulators are undertaken by competition authorities. This also implies that the borders between regulation- which in its widest sense it aimed at correcting market imperfections in a specific industry- and competition law which is aimed at creating and maintaining the conditions for workable competition but leaves the decision-making process in the hands of the market players- are not as clearly defined as they were in the past. Yet conduct regulation is still a highly problematic tool in that it creates a disincentive effect and its efficacy is questionable and thus should not be lightly adopted.
Many small economies do not rely solely on one method of regulation. Rather, they adopt a range of methods— from regulation of mere monopoly by conduct or structural methods to treating excessive pricing as an abuse of dominant position. By adopting different methods the law ensures that mere monopoly will be regulated more effectively, given the diversity in litigants, procedure, and remedies. But is this necessarily efficient? It might well be that the cumulative effect of all the remedies creates a great disincentive for firms to engage in competition or innovation that will lead to dominance. Once powerful weapons are used to regulate dominance, a firm will most likely take affirmative steps in order to avoid being subject to these regulatory powers. Legislatures should thus weigh the added disincentive effect of the proposed new method of intervention against its marginal effect on the effectiveness of regulation.

An additional conclusion from this chapter is that monopolies and natural monopolies should not necessarily be treated in the same manner. While the market can regulate, even if only partially, the conduct of a monopolist, the same is not true where natural monopolies are concerned. Also, in natural monopoly markets the disincentive effect is very limited. Accordingly, regulation of natural monopolies may well be worth the effort. Thus, in jurisdictions where mere monopoly is not regulated, or where only limited aspects of its conduct are regulated, natural and non-natural monopolies should be differentiated. This will be the focus of chapter 5 below.

4.3 : Abuse of Dominant Position

4.3.1 Introduction

Competition policy seeks to promote competition on the merits. Where a company is found to hold a dominant position, it may use its market power to engage in practices which, instead of encouraging competition based on merit, further its dominance in the monopolized market or in an adjacent market. In this sense the conduct creates unnatural barriers, which unnecessarily and unjustifiably exclude actual or potential competitors or

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270 Other goals may infringe on this goal. See discussion in Chapter 3 supra.
raise their costs. By precluding the competitive check on its price and output decisions that these rivals provide, the dominant firm may then be able to restrain output and raise price even further, leading to a further efficiency loss. Such anti-competitive restraints can be horizontal or vertical, unilateral or imposed through an agreement.

Dominant firms have many ways in order to abuse their power in order to exclude or prevent the expansion of their smaller rivals. Among other things, an established monopolist may use the power it has over existing retailers or wholesalers in order to deter them from carrying a new product. For example, it may engage in exclusive dealing contracts. Second, it can refuse to deal with a distributor who carries the competing brand. The entrant would have to compensate the distributor for his short-term losses in order to convince him to deal with him. Such compensation might be costly if the entrant does not have sufficient capacity to meet all of the demand of the incumbent or if the products are differentiated. The incumbent monopolist might also use loyalty rebates to deter the expansion of new rivals. Abuses of market power take many forms.

Artificial restriction of competition by dominant firms may be especially damaging to small economies, where competition is already limited by the natural conditions of many of their markets- high concentration levels protected by high natural barriers to entry. Anti-competitive conduct may inhibit the (already limited) domestic competitive forces as well as the contestable effects of imports from foreign jurisdictions. Strengthening competition policy to eliminate, or at least to reduce significantly, business

274 Consider the recent suits brought against dominant U.S. firms: In a suit against Brunswick, a coalition of boat builders contends that the company has been driving competitors out of the business with so-called market-share discounts. Under these schemes, the size of the discount a boat builder receives is pegged to the percentage of engines it buys from Brunswick; Anheuser-Busch has allegedly forced independent distributors to drop microbrews by granting distributors discounts for dropping such competitors; Frito Lay was charged with paying stores fees to muscle out smaller potato-chip brands; United Airlines was charged with giving corporate purchasers discounts contingent upon avoiding Frontier Airlines. See also the Microsoft case United States v. Microsoft Corporation Civ. Doc. No. 98-1232 (TPJ) (filed May 18, 1998).
275 See Chapter 1 supra.
practices that artificially limit competition has the potential to increase allocative, productive and dynamic efficiency.

The main difficulty in preventing exclusionary business practices by dominant firms is distinguishing use from abuse—recognizing the nature and diverse forms of business efficiency and differentiating them from conduct that is designed primarily to exclude competitors. Jurisdictions differ in the terminology for and the scope of the prohibited conduct. The terminology used includes abuse (or use) of dominance,276 activities contrary to the public interest,277 monopolization,278 or unreasonable restraints on the freedom of trade279 (hereinafter: “abuse of dominance”). The tests for distinguishing use from abuse range from general public benefit considerations to the prohibition of specific, limited types of conduct, although most center on the negative effects of the conduct on competition not based on comparative merit. Most commonly abuse of dominance provisions cover an eclectic range of conduct deemed to be abusive.280 Core offenses, regulated by most jurisdictions, include refusals to deal and price discrimination. Other offenses include, inter alia, tying, exclusive dealing, and predatory pricing, as well as other types of conduct such as the creation of artificial barriers by litigation, abuse of intellectual property rights, or loyalty rebates that tie price to requirements rather than to volume.

The behavioral model does not attack market power as such, but rather prohibits anti-competitive conduct that firms use in order to achieve or maintain monopoly power. As discussed in Section 4.2 supra, this distinction is important in order to encourage firms

276 For example, Article 86 of the EC Treaty of Rome, Section 29A of the Israeli Restrictive Trade Practices Act 1988, Section 9 of the Maltese Competition Act 1995; Section 2 of the Spanish Act against Restraints of Competition 1963, Section 22(3) of the German Act Against Restraints of Competition; Section 46 of the Australian Trade Practices Act 1974; Section 36 of the New Zealand Competition Act 1986 (“use”).
277 Section 3(1) of the U.K. Monopolies and Mergers Act 1963; Section 2 of the Belgian Act on Protection Against the Abuser of Economic Power 1960; Section 24(1) of the Netherlands’ Economic Competition Act.
278 U.S. Sherman Act, section 2.
279 Section 11(1) of the Danish Monopolies Control Act.
280 Non-exclusive lists of abusive practices are provided, for example, in Article 86 of the EC Treaty of Rome; Section 29(A) of the Israeli Restrictive Trade Practices Act 1988; Section 79 of the Canadian Competition Act 1986.
to compete and enhance productive efficiency. Dominant firms may, for example, exploit economies of scale regardless of the inevitable impact on less efficient rivals. Also, they are generally not allowed to exclude, but are allowed to extract monopoly profits. At the same time, while monopoly as such should not be prohibited nor discouraged, not every means that helps achieve monopoly is permissible. It follows from the behavioral model that the strengthening or the maintenance of market power is not prohibited as long as it is based on events in which the dominant firm takes no active part (such as the failure of its rival which is not based upon its own conduct, or limited competition which is a result of government-created obstacles to trade) or is based on the conduct of the dominant firm which is a result of its comparative efficiency.

The goal of this section is to analyze the abuse of dominance offenses that small size may render more important from a regulatory point of view. General issues of abuse of dominance will be analyzed only where necessary to further this goal. Sub-section two includes a broad overview of general issues of differentiating between use and abuse of market power. Sub-section three centers on specific types of conduct for which concentrated market structures protected by high entry barriers create a need for a more refined analysis of their effects. Sub-section four analyzes some direct regulatory powers, while sub-section five focuses on remedies. It points to the pitfalls of using some traditional and conventional competition law remedies, and suggests some ways to solve these problems. It is argued, for example, that in markets with high barriers to entry and a small number of market players, competition authorities should be more careful to prevent the elimination of an existing competitor, where the elimination of such a competitor may reduce significantly economic performance.

4.3.2 Abuse vs. Use of Market Power

281 New Zealand has amended its competition law to clearly indicate that use of a dominant position is a distinct element of the violation. The change resulted from concern that a dominant firm should be able to compete aggressively and take advantage of scale economies or product development. The change is significant, since it suggests that a firm that does those things will not use its dominance, regardless of its intentions of doing so. Forrest Miller, Intent in New Zealand Competition Policy (LL.M. Thesis, University of Toronto, Faculty of Law, 1997) p. 157.

282 In some jurisdictions, such as the EC, Malta, and Israel, abuse is defined to include also practices which extract monopoly profits from customers or others contracting with the dominant firm. See Temple Lang, "Monopolization and the Definition of Abuse of a Dominant Position Under Article 86 EC Treaty" [1979] 16 CMLR 345. Such conduct was dealt with in Section 4.1 supra.
Preventing exclusionary abuses by dominant companies which erect artificial barriers to entry and have the effect of excluding competitors from the market or otherwise restricting competition, are of importance to small economies. The reason is three-fold. First, dominant position is much easier to achieve and once achieved much more difficult to erode in many markets in small economies compared to large ones, given the concentrated nature of the market and the existing entry barriers. Unnatural barriers such as blockaded entry into distribution channels may strengthen dominant position even further, to the point that it is almost impossible to challenge such market position. Second, often downstream or upstream markets in small economies are also concentrated, so that it is easier for the monopolist operating at one level of the chain of supply to abuse its monopoly power in such markets (unless there exists countervailing monopoly power). To illustrate, if there is room in the market for only one or two efficiently sized distribution or service outlets and those are controlled by a monopolist operating in a downstream or an upstream market such that the use of these outlets by the monopolist’s competitors is foreclosed, then a potential competitor would have to incur high costs of building its own outlets. Another example involves the incentives of a dominant firm to engage in tying. Economic theory suggests that a monopolist will earn its monopoly profits by selling the monopolized good at monopoly price. It cannot gain another price advantage by tying the monopolized good to a competitive product. This rule has, however, exceptions. If barriers to entry into the currently competitive market are high, the monopolist may create a successive monopoly in the market of the tied product. Third, in a small economy a relatively small capital requirement or a rise in costs created by exclusionary conduct might constitute a barrier to entry as there is greater risk than in a larger market that demand would not be sufficient to yield a normal return.

The difficulty faced by a behavioral regime is distinguishing between competition, which is desirable, and anti-competitive conduct, which is prohibited. Both involve deliberate injury to competitors and may even result in harm to competition; both enhance or maintain the market power of the dominant firm. This ambiguity concerning the wrongfulness of harm to others has generally led to a rule of reason analysis of allegedly abusive practices. In most jurisdictions, to prevail in a claim a plaintiff must

283 See Chapter 1 supra.
satisfy a two-part test which requires that the defendant (1) have a dominant position in the relevant market, and (2) engage in conduct that protects, enhances or perpetuates this power, and which is not based on comparative merit. Some jurisdictions also require exclusionary purpose or intent. All three requirements are analyzed below.

A. Dominant position
A finding of dominant position in the relevant market is generally an essential prerequisite for abuse of dominance prohibitions. The reason is that it is assumed that unilateral anti-competitive conduct cannot be engaged in by firms lacking market power or that such conduct will have limited effect on market conditions if it is engaged in by such firms. Dominant position was defined and analyzed in Section 4.1 above.

While most types of exclusionary conduct require pre-existing market power in order to have any significant effect on the state of competition in the relevant market, several practices may greatly increase the likelihood of market dominance. Assume, for example, that a firm engages in a series of long-term exclusive contracts that lock up existing outlets or important inputs. A firm that possesses the necessary resources in order to suffer short-term losses in order to gain long-term monopoly profits may engage in such contracting even before it has market power. Similarly, a firm that assumes that the current dominant firm is likely to lose its market position since, for example, its technology is soon to become obsolete or an important input will become unavailable, may engage in contracting that excludes its future rivals in anticipation that it will have a comparative advantage over its rivals in replacing the current monopolist.

Small economies should prohibit from their incipiency certain acts that may potentially create a monopoly position. Such prohibitions differ from regular abuse of dominance prohibitions, in that the firm engaged in such conduct does not yet possess market power, and thus, as a matter of logic, cannot abuse this power. Rather, the conduct itself serves to create a competitive advantage to the firm, not based on its comparative

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284 See, for example, the competition laws enumerated in footnote 275 supra. For U.S. see United States v. E.I. du Pont de Nemours & Co, 351 U.S. 380.
285 Some jurisdictions, such as the EC, do not require a showing of a causal connection between market power and the conduct, once it has been determined that the firm possesses market power.
productive or dynamic efficiency. Such regulatory powers may provide an important regulatory tool for small economies to deal with undue concentrations of market power. An injunctive order to restrain exclusionary conduct engaged in by a firm likely to achieve dominance can be more timely and effective and less costly than regulating dominance once achieved. The importance of such regulation for small economies is strengthened by the fact that market power, once achieved, cannot usually be easily eroded due to the high entry barriers into many markets. Accordingly, if certain exclusionary conduct, not based on the competitive merits of a firm, is likely to lead to the creation of a dominant position for such a firm, it should be prohibited from its incipiency. There is no justification for waiting until the firm has achieved its dominant position to regulate its conduct and prevent it from using its market power to enhance or strengthen its market position further. Small economies may, alternatively, combat exclusive conduct in its incipiency by lowering the threshold for dominance.

B. Conduct requirement

The behavioral model requires conduct that amounts to an abuse. As noted above, abuse of dominance is, very generally, defined as conduct which creates artificial barriers to competition not based on the competitive merits of the firm engaging in such conduct. The improper conduct is often described as “exclusionary” or “predatory” in the sense that it impairs the opportunities of rivals by placing them at a significant economic disadvantage. The concept of abuse is elastic, encompassing almost any kind of

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287 See also Section 4.3.5 infra.

288 See Section 4.1 supra.

289 A clear example of a comparative advantage gained by a dominant firm which is not based on merit but rather on the firm’s market position can be found in the Israeli case of Civil Case (Tel Aviv) 112/92 Baruch Shogul, Lawyer v. Bezeq, Takdin District Court Decisions, vol. 92 (2) 1992-3, 1350. There, Bezeq, the monopolistic telecommunications company, conditioned the continuation of supply of telephone services to a company in bankruptcy on the grant of securities for the payment of past debts of the firm. The district court held that such conduct amounts to an abuse of dominance. A monopolist may not use its dominant position to gain an advantage over other suppliers of a firm in bankruptcy. It may not use the lack of market alternatives available to the bankrupt firm in order to receive a security for past debts, which cannot be obtained by any other firm.

290 See, for example, the U.S. cases of Eastman Kodak v. Image Technical Services (1992) 112 S. Ct. 2072, 2093 (“Our Section 2 monopolization doctrines are similarly directed to discrete situations in which the defendant’s possession of substantial market power, combined with his exclusionary or anti-competitive behavior, threatens to defeat or forestall the corrective forces of competition and thereby sustain or extent the defendant’s agglomeration of power.”)
behavior that would allow the dominant firm to put its rivals at a competitive
disadvantage that cannot be justified by objective criteria. In practice, the task of
determining whether or not a firm has exercised its monopoly power for anti-competitive
purposes has proved to be one of competition law’s most important dilemmas and is
subject to much controversy and to much of the prejudice against large firms.

The perceived nature of the conduct is largely affected by the goals of
competition policy. A policy that focuses on competition as a process of rivalry rather
than as a means of promoting economic efficiency, will define as anti-competitive
conduct which creates entry barriers even if based on competitive merits. Such an
approach may even handicap the incumbent in some way by requiring it to hold a price
umbrella over the heads of its rivals or otherwise pulling its competitive punches. The
decision in the U.S. case of Alcoa, for example, can be interpreted as defining the
progressive embracing of each new business opportunity as exclusionary. Such a finding
raises the possibility of condemning monopoly in the absence of identifiable,
exclusionary acts other than those ordinarily associated with a firm’s operation.
Proponents of the efficiency standard would probably be less concerned with the lack of
rivalry in a market if this was the consequence of new entrants being unable to match
efficiencies and investment performance of the incumbent monopolist, as long as no
artificial entry barriers prevented the most efficient market player from gaining market
power. As argued in Section 3.1 above, small economies should adopt a policy that
strives to maximize economic efficiency in the form of utilization of fewer resources and
lower production costs rather than a policy that ensures that new rivals can enter the

292 See Chapter 3.1 supra. Richard Posner, speaking as a Justice of the 7th Circuit of the US Court of
Appeals in Olympia, supra, note 182, described the developments in the U.S. monopolization offence:
“Opinion about the offense of monopolization has undergone an evolution. Forty years ago it was thought
that even a firm with a lawful monopoly...could not be allowed to defend its monopoly against would-be
competitors by tactics otherwise legitimate; it had to exercise special restraint- perhaps, indeed, had to hold
its prices high, to encourage new entry... Later, as the emphasis of antitrust shifted from competition as a
process of rivalry to competition as means of promoting economic efficiency... it became recognized that
the lawful monopolist should be free to compete like everyone else; otherwise the antitrust laws would be
holding an umbrella over inefficient competitors. ... Today it is clear that a firm with lawful monopoly
power has no general duty to help its competitors, whether by holding a price umbrella over their heads or
by otherwise pulling its competitive punches.”
293 Ibid.
294 Alcoa, supra, note 44.
market. This does not mean that economic efficiency and inter-firm rivalry are to be regarded as being always mutually exclusive goals. Inter-firm rivalry is one means by which economic efficiency can be improved. But there may be substantial limitations on the extent to which economic rivalry can be attained and maintained in markets characterized by scale economies.\(^{295}\)

Several tests have been devised to differentiate between the abuse and the use of market power, none of which provide clear guidelines. Most tests center on the negative effects of the conduct on the state of competition in the market, which cannot be explained through superior efficiency arguments. If the dominant firm’s conduct serves to eliminate or to deter the expansion of a more efficient competitor, then such conduct is deemed to be exclusionary or predatory in nature. The Canadian *Competition Act*, for example,\(^{296}\) requires that the dominant firm engage in a practice of anti-competitive acts—defined to be exclusionary, disciplinary or predatory in nature\(^{297}\)—which has had, is having, or is likely to have the effect of preventing or lessening competition substantially in a market, and which is not a result of superior competitive performance. Similarly, the Israeli *Restrictive Trade Practices Act* prohibits a monopolist from abusing his market power in a way that might reduce competition or harm the public.\(^{298}\) This has generally been interpreted as prohibiting conduct which does not rest on comparative efficiency advantages. Article 86 of the *Treaty of Rome* provides that any “abuse by one or more undertakings of a dominant position within the Common Market or in a substantial part of it” is prohibited if it may affect trade between member states. Abuse is defined as “the behavior of an undertaking in a dominant position which is such as to influence the structure of a market where, as a result of the very presence of the undertaking in question, the degree of competition is weakened and which, through recourse to methods different from those which condition normal competition in products or services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that

\(^{296}\) Canadian *Competition Act 1986*, Sections 78-9.
\(^{297}\) Nutrasweet, supra, note 82.
\(^{298}\) Section 29A(A) of the Israeli *Restrictive Trade Practices Act 1988*. 
competition.\textsuperscript{299} Similarly, Section 46 of the Australian \textit{Trade Practices Act} states that in order to infringe the abuse of dominance provision a corporation must take advantage of such power for the purpose of eliminating or substantially damaging a competitor of the corporation or a competitor of a body corporate that is related to the corporation; preventing the entry of a person into the market; or deterring or preventing competitive conduct. The section was interpreted as applying only whenever there is a real chance that such effect will occur.\textsuperscript{300} The U.S. basic test for abuse, found in \textit{Griffith},\textsuperscript{301} is also an effects-based test. The test postulates that "the use of monopoly power, however lawfully acquired, to foreclose competition, to gain a competitive advantage, or to destroy a competitor, is unlawful."\textsuperscript{302} If construed literally, this formulation appears to condemn all conduct by a monopolist that has exclusionary effects. However, it is nowadays commonly interpreted as prohibiting only conduct which does not rest on economic merit. An important part of the effects test, adopted by all economies, is that the dominant firm is allowed to justify its allegedly exclusionary conduct by legitimate commercial justifications, such as a refusal to deal with a customer with a bad credit record, in order to avoid placing the dominant firm at a comparative disadvantage just because of his market position.\textsuperscript{303}

Importantly for small economies, in order to prevent the deterring of pro-competitive conduct by dominant firms, economic theory should control the negative effects test on which the drawing of inferences as to anti-competitive conduct is based.\textsuperscript{304} This can be exemplified by a refusal of a firm to supply the spare parts of its product to

\textsuperscript{299} \textit{Hoffmann-La Roche}, supra, note 51, at 7541.
\textsuperscript{300} See Russell V. Miller, \textit{Miller's Annotated Trade Practices Act}, (Australia: LBC Information Services, 1999).
\textsuperscript{301} \textit{U.S. v. Griffith} 334 U.S. 100 (1948).
\textsuperscript{302} \textit{Ibid.}
\textsuperscript{303} See, for example, the New Zealand case of \textit{ARA v. Mutual Rental Cars} [1987] 2 NZLR 647 at 681 ("ARA does not necessarily have to accept any applicant for a rental car concession, including Budget. The availability of space, level of service proposed for the public and other considerations will operate as reasonable constraints...")
\textsuperscript{304} For a case where economic theory was subordinated to a non-economic analysis see, for example, the New Zealand case of \textit{Eastern Express Pty Ltd v. General Newspapers Pty Ltd}, (1992) 106 ALR 297. The case turned on market power, but the court observed in relation to use and purpose that no pre-ordained and fixed categories as to the level of pricing or economic theory of costing should control the drawing of inferences as to anti-competitive purpose, which should rather depend on general human experience as well as logic. Some commentators argue that use was subordinated to a non-economic analysis of purpose. \textit{Miller}, supra, note 299.
its rivals in the service market, a situation with which most jurisdictions have dealt.
Economic analysis emphasizes competition in the product market as a restraining force in
after-markets. Where the consumer bases his decision on which competing product to
buy not only on the initial price of the product but also on the price of replacement parts
and service, a firm that faces competition in its product market will have limited ability,
if at all, to raise the prices of its parts and services. Its refusal to deal with independent
service providers will thus be, most likely, motivated by business justifications (more
efficient service provided by its own arm; bad credit record of the independent provider)
rather than as a way to abuse its market power in the replacement parts market. Such
analysis was the basis of the U.S. Kodak case.\textsuperscript{305} The EC Court of Justice, when
confronted with a similar refusal to deal by a calculating machines provider that faced
vigorous competition in the market for such machines, defined the relevant market as the
spare parts market and found abuse of dominance in a refusal to deal. This result does not
adhere to economic principles and unnecessarily constrains business conduct. In the
Israeli case of \textit{Elevator market}\textsuperscript{306} the relevant market was also defined as the market for
the supply of exchange parts for elevators produced by the leading elevator producers.
The firms were found to be a monopoly and their refusal to supply the elevator exchange
parts was found unreasonable. Although the court did not mention the effects of
competition in the elevator market on the ability of the elevator firms to abuse their
power in the after-market, the decision can be justified from an economic basis. The
elevator market might be unique in that the initial buyer (usually a building contractor)
and the person requiring service (the resident) might base their decisions on different
goals. The contractor may base his decision on the cost of the elevator itself in order to
reduce the overall cost of the building (especially in Israel where buildings are commonly
built by a contractor and property right to apartments within buildings are sold to future
tenants), while the residents have to bear the on-going consequences of this decision with
regard to the cost of service maintenance and exchange parts for the elevator.

\textsuperscript{305} See the U.S. case of \textit{Eastman Kodak Company v. Image Services Inc.}, 504 U.S. 451, 112 S. Ct. 2071
\textsuperscript{306} Monopoly case M/343- \textit{Elevator Market} (unpublished).
Also importantly for small economies, the negative effects test should be applied broadly, in order to include potential future competition. Under such a standard, a firm’s actions can be deemed anti-competitive even if it is not clear that a rival has been harmed yet — and even if it is not clear who will be the incumbent’s rivals in the future.\(^{307}\) The importance of such a standard stems from the fact that market conditions might change such that firms that were not presumed in the past to be potential competitors might contemplate entry. Such entry could be blocked if the incumbent is permitted to engage in anti-competitive conduct that creates artificial entry barriers. Enabling such barriers to exist may prevent, for example, the entry of importing firms once trade barriers are lowered.

Several jurisdictions have devised tests that assist them in determining whether the conduct can be justified. New Zealand and Australian case-law, for example, define abuse as conduct which would not have been engaged in by a competitor operating in a competitive market structure but otherwise in the same circumstances.\(^{308}\) As a matter of logic it appears to follow from the competitive environment standard that a dominant firm, whatever its purpose, does not necessarily use its position merely by engaging in rivalrous conduct that harms other competitors. Rather, conduct is legitimate if it could occur in a competitive environment.\(^{309}\) The test also emphasizes the need for a causal connection between market power and the conduct. The application of this test can be exemplified by the New Zealand Port Nelson case.\(^{310}\) There, the question was whether Port Nelson, which held a dominant position in the market for tugs, had engaged in abuse of dominance with regard to three types of conduct: (a) the imposition of a tie, in the form of refusal to supply its tugs unless its pilots were also used; (b) imposing a $100 minimum pilotage charge; and (c) offering a 5% discount if all its services (wharves, tugs and pilots) were taken. Port Nelson admitted that the purpose of its actions was to

\(^{307}\) Intel Corp., Analysis to Aid Public Comment and Commissioner Statements, U.S. Federal Trade Commission, Federal Register Vol. 64, No. 78.
\(^{308}\) For Australia see, for example, Queensland Wire, supra, note 12 ("BHP...used that power in a manner made possible only by the absence of competitive conditions"). For New Zealand see Clear, supra, note 223, at p. 403 (The Privy Council held that a person does not ‘use’ dominance “unless he acts in a way which a person not in a dominant position but otherwise in the same circumstances would not have acted.” p. 403).
\(^{310}\) Union Shipping NZ Ltd. v. Port Nelson Ltd [1990] 2 NZLR 662 (High Court)
prevent the creation of a monopoly in the market for pilotage that would “hold it to ransom”. The court held that a firm not dominant in the port facilities, tugs or pilotage markets would have supplied tugs without a tie. The rationale behind this finding was that a competitive firm could not have enforced upon its customers terms of sale which are not competitive, or otherwise such customers would have contracted with its rivals. The court was not satisfied that the 5% discount and the $100 pilotage charge were not conduct which a firm not in a dominant position but otherwise in the same circumstances would engage in, despite the fact that a firm not in a dominant position would run considerable risk of losing customers in structuring a discount such that it was not available unless all its services are used. This latter conclusion of the court was based, presumably, on an assumption that not all the firm’s services were superior to those offered by its rivals.

The competitive environment test is a problematic yardstick. On the one hand, it is too broad and sweeping in nature and does not add much to the distinction between legal and illegal conduct, apart from the fact that it includes all activities engaged in by a monopolist that necessitate market power. The test might prevent a monopolist from obtaining monopoly profits, even if no harm to competition results, since in a competitive market a would-be buyer might be able to obtain the use of a similar asset from another at a competitive price. Accordingly, any pricing principle which retains any monopoly profits could not survive such a test. The test is especially difficult to apply where a dominant firm supplies more than one service in the chain of production, and is attempting to maximize its overall profits, rather than the profits in the competitive market alone. On the other hand, this yardstick may not be broad enough to prevent certain types of conduct that give a monopolist an advantage over its rivals which is not based on its comparative merit, as it may not prohibit behavior which is lawful if engaged in by a firm in a competitive industry, when indulged in by monopoly firms, even if such conduct produces different results and is engaged in for different reasons under different market structures. For example, a firm not in a dominant position may still gain a reputation for engaging in predatory conduct once a firm enters its territory. Such a

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311 See discussion of Australian regulation of mere monopoly in Section 4.2 supra.
312 See Clear, supra, note 223.
reputation may serve to scare away its potential competitors and affect the conduct of its existing competitors, similar to the effects such conduct may have in a market dominated by a monopolist. Such a test also requires the postulation of artificial market scenarios which do not easily translate into business guidance.\textsuperscript{313}

Some commentators argue further that the perfect competition assumptions underlying the competitive standard test do not take into account the concentrated nature of small economies that contain many monopolies and oligopolies.\textsuperscript{314} This raises an important question for small economies: can conduct that is otherwise abusive be justified by a market structure argument that absent the practice effective competition would still not exist because the market structure was oligopolistic and prices would therefore be determined by the particularities of an oligopolistic market?\textsuperscript{315} The answer should be negative. Small economies should exercise extreme caution not to justify abusive conduct based on such relative performance arguments. Although oligopoly markets can create allocative inefficiency similar to that of a monopolist, such inefficiency will result only if very specific market conditions exist in the market. As elaborated in Chapter 6 infra, firms operating in oligopoly markets may compete vigorously, to the benefit of consumers. But even if this were not the case, a dynamic, long-term analysis dictates that it is highly important to prevent the foreclosure of markets for future competitors, whether domestic or foreign.

Given the difficulties involved in proving in each case that a certain type of conduct has amounted to abuse of dominance, several small economies have included in their competition laws non-exclusive lists of practices that if engaged in by a dominant firm are presumed to constitute abuses of power.\textsuperscript{316} Such presumptions shift the burden of proof from the plaintiff to the defendant and may be justifiable where economic theory suggests that there is a great likelihood of abuse or the information required in order to differentiate between abuse and use is known to the defendant.

\textsuperscript{313} Port Nelson v. CC (1996) 7 TCLR 217 (Court of Appeal).
\textsuperscript{314} Farmer, supra, note 294.
\textsuperscript{315} Such an argument was rejected, for example, by the German Federal Supreme Court in Zementkontoor Unterelbe, WuWE BGH 667 (17 May 1965), since such oligopoly pricing could be controlled by the Federal Cartel Office.
\textsuperscript{316} Section 29(A)A of the Israeli Restrictive Trade Practices Act 1988; Section 79 of the Canadian Competition Act 1986; Section 9 of the Maltese Competition Act 1995.
Whatever the test adopted for abuse, action should be taken against the monopolist only if its actions actually harm competition. This point can be illustrated through the Spanish case of *Carbonell*. The Carbonell Co., the only producer of olive oil in the Castro del Rio area, had obtained oral undertakings from the farmers at that area for the sale of their olive extract grease at a price ultimately to be unilaterally determine by Carbonell, based on the volume of the olive crop. The court held that Carbonell had abused its dominant position vis-a-vis the farmers in fixing sales prices and ordered it to change its pricing policy, so as to give each farmer the possibility to supply on the basis of a price agreed upon in advance. The case seems to provide a useful example of the use regulatory powers in vain, as the decision did not serve to enhance efficiency, or even the bargaining strength of the olive farmers in the region. Carbonell could still extract most of the profit from the sale of the olive oil. Following the decree, Carbonell would, most likely, enter into contracts with the farmers for a price that includes a risk factor that the market price for olive oil would be low, thereby reducing the overall price paid for their olives, or, alternatively, choose not to enter into agreements with the farmers until the market price for olive oil was known.

C. Purpose or intent?

Most jurisdictions require anti-competitive purpose or intent to misuse market power as a fundamental underpinning of a violation. In some jurisdictions the law can even be interpreted as focused on intent, rather than on the economic effects of the conduct in question. Intent is, however, an uncertain indicator since the conduct is motivated in all instances by the same immediate objective—winning sales from competitors and occupying a larger share of the market. Exclusionary purpose thus follows almost inevitably where there was use of market power. For example, a firm must anticipate that by exploiting economies of scale it would eliminate rivals. It would be surprising if the firm did not do so with that end in mind, since elimination of rivals is a natural

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318 See, for example, Sections 78-9 of the Canadian Competition Act 1986; The U.S. case of *Spectrum Sports v. McQuillan*, 4,1.6 U.S. 4,1.6, 113 S. Ct. 884 (1993).
319 Section 46 of the Australian Trade Practices Act 1974; The Israeli case of *Israel v. Gibor Sabrina* Criminal Case 7873/84 (unpublished) ("Consequence or intent is to create price collusion" is unreasonable).
consequence of expanding production to reduce costs. In acknowledging such difficulties, many jurisdictions adopt a policy under which the intent requirement is all but redundant, and even those courts that do employ it consider questions of economic justification when examining the conduct rather than as an aspect of intent.\footnote{See the U.S. case of Griffith, supra, note 300; The EC case of Hoffman la Roche, supra, note 51; The Israeli case of Dubek, supra, note 207, at p. 194.}

It is suggested that a small economy focus mainly on the economic effects of a conduct, rather than its intent. Even if a dominant firm had no specific anti-competitive intent (or it cannot be proven that it had such intent), the exclusionary practice should be prohibited. Otherwise, the goal of abuse of dominance provisions, to limit the creation of artificial barriers to competition, would be inhibited. Relying on the assumption that a firm intends the results of its conduct only serves to overcome the hurdles of proving a specific intent, and does not add much to the analysis. Nonetheless, where it is proven that the dominant firm did not possess an anti-competitive intent, the lack of such intent should be factored into the remedies granted. Otherwise, the general unclarity regarding the legal status of many types of conduct, given the case-specific analysis required, might reduce the incentives of firms to become monopolists or of monopolists to engage in pro-competitive types of conduct.

4.3.3 Specific Practices Which may Raise Special Concerns in Small Economies
Apart from the general importance of abuse of dominance provisions in preventing the creation of artificial entry barriers into markets which already exhibit a high degree of protectionism stemming from the market’s natural conditions, several specific practices may raise special issues in small economies. Such issues are the focus of this subsection.

A. Price and non-price Discrimination
In regulating discriminatory policies adopted by a dominant firm, small economies may need to apply a different set of rules in order to achieve the goals of competition policy. Price and non-price discrimination, whereby a monopolistic supplier charges two or more customers different prices or applies different trade terms which have no direct relation to
the costs of supplying these customers, is prohibited in most economies. There are three main objections to discrimination. The first is that it may distort competition in the downstream market by preventing potential competitors from being on a level playing field. Large buyers might obtain discounts that would permit the survival of the powerful rather than the efficient. Second, discrimination may be used for the elimination of competitors who cannot meet temporarily low discriminatory prices or trade terms. Discrimination, especially if persisted in, might react cumulatively and adversely on market structure, and so on economic performance and market power. Another objection which is most important for small economies, is that discrimination may be used in order to police and punish an oligopolist that "acted out of line". To the extent that discrimination suppresses rivalry in particular segments of the discriminating firm's market, it may have negative dynamic effects on the state of competition in that market by retarding the normal downward slippage of oligopolistic prices.

In small economies characterized by oligopolistic conduct, discriminatory pricing or trade terms may, however, be part of pro-consumer market scenarios, in which previously stable oligopolistic price structures are ultimately shaken loose and lowered, to the benefit of the public. Oligopolists often do not compete directly on price, but rather compete in other ways, principally through secret loyalty rebates and discounts that discriminate among individual customers. Such discounts are in general to be encouraged. To forbid them would often reduce efficiency and slow reactions to changed market conduct.

The above discussion suggests that if oligopolistic markets are caught under the abuse of dominance provisions- under a joint dominance or shared monopoly construction, or if the definition of dominance is wide enough to include oligopolists- then caution should be exercised in order to distinguish between scenarios where discrimination is a means for the break down of oligopolistic price coordination and other scenarios wherein certain sellers succeed in using discrimination as a means of

321 Section 34 of the Canadian Competition Act 1986; Section 29(B)(3) of the Israeli Restrictive Trade Practices Act 1988; Section 86 of the EC Treaty of Rome; Section 9 of the Maltese Competition Act 1986.
322 The welfare effects of price discrimination are analyzed in greater detail in Chapter 5, infra.
323 Dunlop et al., supra, note 2, at p. 207. For a more thorough analysis of oligopolistic coordination see Chapter 6 infra.
disciplining rivals and market prices are ultimately maintained or pushed up. An overly strict approach to discrimination whereby all such practices are condemned as abusive might actually enhance oligopolistic behavior as the little competition remaining is inhibited. Discrimination in small economies thus merits a deeper analysis of its real effect on the market.\footnote{Eugene Buttigieg, “The Notion of Dominance and the Control of Abusive Pricing Under Maltese Competition Law” (paper presented at the International Conference on Competition and Competition Policy in Small Jurisdictions, Valetta, Malta, 21-3 May 1998.)} The downside of such a policy is that detailed prescriptions might demand huge data and accurate microeconomic predictions.\footnote{Bork, supra, note 129, at pp. 399-401.} Nonetheless, several rules of thumb may assist the competition authorities and courts in determining the legality of discriminatory conduct. Three main factors can signal that a more cautious analysis needs to be performed before the effects of the discriminatory conduct are determined: the market is oligopolistic in nature, potential competitors adopt parallel pricing policies, and discrimination is secret, in order to hide it from other oligopolists.\footnote{See Chapter 6 infra for a thorough analysis of the conditions necessary for oligopolistic coordination to exist.}

B. Predatory Pricing

Small size may also affect the occurrence and the analysis of predatory pricing. While there is no universally accepted definition of predatory pricing, the definition provided by Posner is quite broad: “pricing at a level calculated to exclude from the market an equally or more efficient competitor.”\footnote{Richard A. Posner, The Robinson-Patman Act: Federal Regulation of Price Differences (Washington, D.C.: American Enterprise Institute, 1976).} Pricing at a level to exclude from the market less efficient competitors is, of course, what competition is supposed to achieve; predatory pricing achieves the opposite. The theory of predatory pricing is based on the assumption that a predator will invest in losses for a period with the prospect of high returns upon becoming a monopolist.\footnote{Kip Viscusi et al, Economics of Regulation and Antitrust (Lexington, Mass: D.C. Heath and Co., 1992), at p. 272.}

There is much debate in the economics literature regarding the profitability of predatory pricing, for two main reasons. First, the predator is almost always compelled to absorb larger losses in the short run than will the victim. This is because, following a price cut, the predator must increase output to satisfy new demand forthcoming at the
lower price, and to take up the share of the existing market relinquished by its victim, it will sell many more units at a loss than will its victim.\textsuperscript{329} Second, an important condition for successful predation is the existence of barriers to entry into the predated market. Otherwise, the subsequent price increases would invite entry into the industry on a sufficient scale to ensure that price increases could not be sustained.

The nature of a small market may, however, make a predatory strategy more attractive. First, high entry barriers characterize many industries in small economies. Second, it is relatively easy to satisfy the demand of a small economy and thus wipe out existing competitors. Third, limited capital markets in a small economy may make early exclusion by way of predatory pricing more profitable. If an entrant is challenged shortly after entry and before it has the opportunity to achieve efficient scales of operation, then it might have insufficient resources to withstand a price campaign of such a nature. Start up costs, cash flow problems and delay in achieving volume which generates maximum efficiencies can all contribute to this state. This is especially so if the cost structure of the incumbent firm is unknown to the entrant and to the capital market, as its costs may be perceived to be lower than they are in reality.\textsuperscript{330} In addition, as noted above in a small economy a relatively small capital requirement might constitute a barrier to entry as there is greater risk than in a larger market that demand will not be sufficient to yield a normal return.

\textbf{C. Exclusive Dealing}

Exclusive dealing, whereby the monopolist conditions the sale of its product by an agreement with a distributor or a supplier to not deal with the monopolist's competitors, is one of the most important types of abuse found in small economies. Although the foreclosure effects of exclusive dealing in large markets have been questioned,\textsuperscript{331} the nature of many markets in small economies concentrated and protected by high entry barriers makes exclusive dealing an important regulatory target. As all markets down the chain of supply tend to be more concentrated in small economies, it is much easier for a

\textsuperscript{329} Bork, \textit{supra}, note 129, at p. 144 et seq.
\textsuperscript{331} See, for example, Bork, \textit{supra}, note 129.
dominant firm to use its market power in order to coerce distributors or suppliers to enter into exclusive dealing contracts with it, especially if there are economies of scale in the distribution or the supply of the input. Such exclusive dealing contracts render a distributor or a supplier unavailable to other producers. By a series of exclusive dealing contracts on a regional basis with major wholesalers, retailers or suppliers the monopolist can make entry of new firms into the industry more difficult than otherwise, and can even drive existing firms out of the market. While in large economies exclusive dealing by one or two leading firms will still leave to their competitors a sufficient number of uncommitted distributors, in small economies it might foreclose the market. Establishing a new distribution network may be unattractive, given that it may involve distribution on an inefficient, suboptimal scale and requires additional capital.  

For illustrative purposes, suppose that a dominant manufacturer holds 70% of the relevant product market. Further assume that distribution scale economies amount to 40% of the market. This means that the market can support only two efficient-sized distribution channels. It also means that in order to realize low costs both distributors need to do business with the monopolist (the remaining producers produce only 30% of the market which is not sufficient to realize scale economies). If the monopolist uses its market power in order to coerce the two distributors into exclusive dealing contracts (e.g. by threatening to establish its own distribution channel), then the remaining producers will not have any outlet into the market. Existing distribution channels are blockaded and establishing a new distribution network may not provide a solution, if scale economies are significant and the manufacturers have no significant cost advantage over the dominant firm. A similar outcome would have resulted if the monopolist manufacturer had entered into an exclusive dealing arrangement with duopolistic suppliers.

Exclusive dealing might, therefore, severely affect the ability of the existing and the potential competitors of the monopolist to compete with it on a purely merit basis. Existing competitors may lose their market share and even be driven out of the market, thereby strengthening the market power of the monopolist. Allocative, dynamic and even productive efficiency might be reduced. Alternatively, exclusive dealing may give rise to

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two or more parallel distribution systems, where a single network would be more efficient. In addition, exclusive dealing, even if not harmful in the current context, can prevent the entry or the expansion of future competitors (such as importers) once their cost structure changes.

The severity of the problems raised by exclusive dealing contracts in small economies can be exemplified by the case law dealing with such conduct. To give one example, in the Israeli case of Yediot Aharonot, the defendant, which held a monopoly in the market for daily newspapers, had conditioned the sale of its newspapers to some retailers and distributors on their consent not to sell competing newspapers or to display competing newspapers in disadvantaged display spots. The Director argued that the newspaper’s conduct strengthened its monopoly position, based not on the legitimate and free choice of the consumers, but rather on the forced lack of competing newspapers in the points of sale. The Tribunal prohibited Yediot Aharonot from subjecting the sale of its newspapers to any obligation which is related to the manner in which other newspapers are sold in any distribution point.

It is noteworthy that the refusal to deal offense, which will be analyzed in detail in Chapter 5 infra, which arises where a monopolist refuses to supply a product or a service without a valid business justification or on terms less favorable than those which it gives its own competing arm and such a refusal has significant effects on competition, raises similar issues to those raised by exclusive dealing. In both a monopolist controls or has significant effect (directly or indirectly) over distribution or supply channels which are necessary in order for other competitors to compete with it. Under the refusal to deal scenario the monopolist owns the facilities, inputs or renders the services, while under the exclusive dealing scenario these facilities or services are supplied by another, which contracts with the monopolist. Both can be used to foreclose the market for potential competitors, although they may foreclose other parts of the supply chain.

4.3.4 Direct Regulation of Certain Types of Conduct
As noted in chapter 4.2 above, some jurisdictions impose upon monopolies legal obligations to notify the competition authorities of certain types of agreements they have

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333 Re Yediot Aharonot, in Hegbelim Iskiim, supra, note 14.
entered into or certain types of conduct they have engaged in—such as expansion of output or a refusal to supply a competitor. The regulatory requirements provide an administrative tool that enhances the ability of the competition authority to provide a timely check on certain types of conduct of the monopolist, in order to prevent clear abusive practices from their incipiency. It also provides the dominant firm with a reminder that its conduct is under constant surveillance and may also increase the predictability for the monopolist of the legal status of its actions—at least a “quick look” check, as in most jurisdictions inaction by the competition authorities does not constitute an affirmation of the legality of the conduct. In addition, the firm may be required to publish detailed information. This information may increase transparency in order to provide private parties with the information necessary in order to lodge complaints with the regulatory authority or to make better decisions whether or not they can compete with the dominant firm on the merit. Small economies should exercise caution, however, not to make the notification system too burdensome, in order to minimize the prevention of pro-competitive business activity.

In addition, as mentioned in Section 4.2 supra, several jurisdictions regulate certain types of business conduct without any need of proof of intent or the effects of conduct, given the incentives and opportunities of a monopolist to abuse its power as well as the difficulties involved in bringing monopolists to trial (ex post facto review, proof-related problems, time and resource consuming, etc.). The Israeli legislature, for example, has empowered the Director of the Competition Authority to regulate certain aspects of the business activity of dominant firms, once they are declared by the Director to be monopolies. The Director may require the monopolist to subject its contracts to the approval of the Tribunal for Homogenous Contracts. This Tribunal, a unique Israeli institution, is empowered to regulate trade terms in contracts to verify that the dominant firm is not imposing unfair trade terms upon its customers or suppliers. These regulatory powers enable the early detection and prohibition of abusive trade terms, before they have any effect on the market structure.

In addition, the Director may require the monopolist to meet the specifications of published standards for its products. Such a requirement may deter a dominant firm from raising rivals' costs by changing its standards after a rival has invested significant resources in facilities that produce products adhering to the old standard. Economic theory suggests that a dominant firm would have incentives to do so only if it also competes in a downstream market in which it has no monopoly power, and it is prevented, in some way, from realizing monopoly profits through its monopoly arm, or there are significant costs for consumers of switching to another provider (network externalities, etc.).

4.3.5 A Word on Remedies

Remedial powers may focus on one of three goals: deterrence, compensation, and restoration of competition. The goal of an enforcement system based on deterrence is to identify some level of violations that must be eliminated, and make that level unprofitable by imposing costs on prospective violators. An optimal level of deterrence will make violation unprofitable precisely to the point that it is inefficient. The goal of an enforcement system based on compensation is to restore injured parties to their position had the violation not occurred. Although the focus is on the injured party, the remedy also has deterrent effects: the higher the cost to a violator of competition law, the higher the deterrent effect of such a remedy on future potential violators. A restorative remedy focuses on creating the market conditions necessary in order to restore competition in the specific market. All three goals have been adopted by different jurisdictions to remedy abuses of dominance. Most laws focus on restoring competition in the market, although deterrence and compensation may be cumulative goals. We shall focus our remarks on the former, as it poses interesting and special issues for small economies.

335 Section 27(B)(2), ibid.
336 For example, Section 78 of the Canadian Competition Act 1986; For the U.S. see Benjamin S. Sharp, "Innovative Relief and Class Action Issues in Government and Private Actions: FTC Antitrust Remedies in the Classic Tradition", (1981) 50 Antitrust Law Journal 83, at p. 91; Fox and Sullivan, Antitrust Law, 152 (The principal objects of the remedies is to extirpate practices that have caused or may hereafter cause monopolization, and to restore workable competition in the market.); Section 3 of the Israeli Restrictive Trade Practices Act 1988.
In most cases restoring competition can be met by simply prohibiting the abusive conduct. When merely prohibiting the conduct suffices, the court need not go any further. Little is lost from enjoining the anti-competitive conduct, and there is no disincentive to meritorious competition in simply prohibiting the conduct. The court should also deprive the dominant firm of the fruits of its anti-competitive behavior. Depriving the violators of the fruits of their conduct is effective deterrence.

Restoring the market to the situation in which it was if the anti-competitive conduct was absent may, however, require courts to undo the various effects of the anti-competitive conduct that go well beyond depriving the dominant firm of the fruits of abuse. The reason is that the abusive conduct has already changed the market equilibrium such that market conditions are different from what they would have been absent the anti-competitive conduct. The court may need to use more extreme measures such as the monetary compensation of rivals, lowering entry barriers created by the anti-competitive act or even divestiture of a dominant firm, where other less intrusive remedies are not effective.

Structural remedies are, however, a limited tool for small economies. Productive efficiency militates against direct action to lower seller concentration where scale economies are significant. Such structural measures usually imply a trade-off between enhancing competition and exploiting potential cost efficiencies that flow from minimum efficient scale of production. Moreover, structural remedies based on mere size alone might deter or prevent highly-efficient dominant firms from competing aggressively or from taking advantage of economies of scale or new product development. In addition, structural remedies may not be effective without costly on-going regulation, due to the fact that small inefficient firms would not survive in a free market and would eventually grow to larger sizes that allow them to take advantage of scale economies. Accordingly, behavioral measures are of much greater importance in a small market.337

The concentrated nature of a market also raises an additional structural consideration that is mostly absent in large economies. In using its remedial powers, a

337 New Zealand, for example, has recognized that relatively high levels of concentration had to be tolerated in the small New Zealand economy, and structural controls on market power were rejected in favor of a behavioral regime. DTI 7 October 1985.
competition court in a small economy should take into account, when attempting to restore competition in a market, the effect of its remedy on the current market equilibrium.\textsuperscript{338} If the court goes beyond what is necessary in order to restore competition in the market and eradicate the consequences of the anti-competitive conduct, it might create a situation which is counter-productive to competition, if the remedy necessarily leads to the exit of a firm from the market.\textsuperscript{339} For this to happen four conditions have to be met. First, the market can support only a small number of firms which actually compete in the market. Second, entry barriers are high. Third, the judicial remedy should create such a comparative disadvantage to a competitor that it must exit the market. Fourth, the exiting firm’s assets may not be utilized by a new firm such as a successor in bankruptcy, or it may take a new competitor a long time to establish itself in the market (for example, where reputation is an important factor in the consumer’s decision). Put differently, although competition policy is designed to protect competition and not competitors, in some markets it might be important to exercise caution with regard to the viability of competitors, if their viability is crucial for competition.

Take, for example, a market situation in which the relevant market can support only two firms, the number of competitors that actually exist in the market. Assume that one firm is found to engage in anti-competitive behavior, and that the court does not exercise enough caution in its decision such that the firm has to exit the market due to a significant comparative disadvantage created by the court remedy. If a new entrant faces high barriers to entry, this change in market structure may affect the pricing behavior of firms in the market, given that the remaining firm now enjoys a monopoly position. The exit of a competitor from the market may also be of great economic impact where the market can or may support only one firm, and several firms engage in competition for the


\textsuperscript{339} Areeda and Hovenkamp acknowledged the possibility of a significant effect on the viability of competitors as a result of a court remedy: “[f]inancially the monopolist...might suffer considerable deprivation as a result of a court’s efforts to restore competition.” Phillip Areeda and Herbert Hovenkamp, \textit{Antitrust Law: An Analysis of Antitrust Principles and Their Application} (Boston: Little, Brown & Co., vol. 2, 1995 rev.), at p. 57.
market. Efficiency dictates that the most efficient competitor serve the market. However, if a superior potential competitor engages in anti-competitive conduct while competing for the market, and the court hearing the case creates a comparative disadvantage for this firm, the firm might exit the market. Consequently, efficiency will not be achieved.

This can be illustrated by the Canadian Nielsen case. There, Nielsen was found to engage in anti-competitive exclusive dealing contracts with its suppliers and customers which served to create artificial barriers to the entry of its potential competitors. The Canadian Competition Tribunal struck down the exclusivity clauses in its existing contracts, without interfering with the rest of the contractual terms. The Tribunal acknowledged that striking down the exclusivity clauses in Nielsen’s contracts with its suppliers without addressing the current payment clauses which were of a blended nature—i.e. they contained a single payment for the data and exclusive access to them, may be problematic. The problem was that “Nielsen might have to continue its current level of payments, without receiving the benefits of exclusivity the payments were intended to secure, while its competitor makes payments at a lower level.” However, the Tribunal chose to sidestep this issue by making no comment on whether or not this was a valid concern for the Tribunal to address. This remedy could have required Nielsen to suffer great losses and exit the market, were it not the case that Nielsen’s incentives for exclusivity were alligned with those of its suppliers, who shared some of the profits from Nielsen’s position as a sole service provider.

4.3.6. Conclusions
Abuse of dominance provisions are highly important for small economies, in which natural entry barriers and scale economies tend to create market dominance more commonly than in large economies. As was argued, the peculiarities of small economies tend to make exclusionary conduct by dominant firms more profitable to the monopolist

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342 Ibid.  
and accordingly welfare-reducing to the economy as a whole. Accordingly, it was suggested that small economies adopt competition policy regimes that have the following features:

1. Monopoly should be tolerated, as it is often necessary in order to achieve productive efficiency. Nonetheless, its conduct should be closely regulated to minimize the creation of artificial barriers to competition.

2. Abuse of dominance provisions should be broad enough to encompass all the types of abusive conduct engaged in by a dominant firm. The skepticism over the ability of administrative authorities to seek out and correct practices that exclude competitors from the market should be replaced by an acknowledgement of the need to restrain exclusionary conduct. 344

3. The analysis of abuse should be an economic one, in order to minimize false positives. Exclusionary practices should be interpreted in light of the need to enhance economic welfare in the market.

4. Small economies should regulate also exclusionary conduct that is likely to lead to the creation of market power, rather than only exclusionary conduct that maintains or strengthens existing market power.

5. Intent should play a limited role, if any, in determining the legal status of a certain type of conduct.

6. The special characteristics of small economies require that certain types of exclusionary conduct be analyzed differently than in large economies.

7. Small economies should exercise caution when applying structural remedies in order not to create a more concentrated market structure.

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344 Israel has only recently (1995) added a section to its competition law that prohibits abuse of dominance other than refusal to deal. Canada has exchanged its limited monopolization prohibition in reviewable abuse of dominance restrictions as recent as 1986.
Chapter 5: The Regulation of Natural Monopolies

5.1 Introduction

Natural monopolies are not a rare phenomena in small economies.\(^1\) Especially in very small economies, natural monopolies may exist over a wide range of industries and may significantly affect the economic performance of vertically interconnected industries as well as the economy as a whole. Given this fact, as well as the special economic characteristics of natural monopoly markets, such markets deserve special analysis. Accordingly, this chapter analyzes the special characteristics of natural monopolies and their implications for the mode of regulation that should be adopted. It is argued that competition laws should differentiate between natural and other monopolies and that natural monopolies should be regulated even where mere monopolies are not regulated or where their regulation is limited. In fact, many jurisdictions regulate certain types of natural monopoly activity differently from other monopolies. Yet the tools that are used in most jurisdictions to regulate natural monopoly industries are very limited and do not necessarily comport with their special characteristics. This chapter introduces and analyzes a wide range of conventional and non-conventional tools that are available for competition authorities to regulate natural monopolies in order to achieve the goals of competition policy, including traditional price and output regulation, as well as the novel option of mandated joint ownership of a natural monopoly by all of its users.

For illustrative purposes, we shall use the following example. Suppose that a lawful natural monopolist owns and operates a port which is the only accessible port for many miles due to geographical constraints. Further assume that the port connects a cluster of manufacturers with their customers who live across the ocean, and that no other method of transportation provides an economic alternative. Thus, to gain access to their customers manufacturers must use the monopolist’s port. The monopolist has the power to deny access to its port to one or all manufacturers and it can also charge supra-

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\(^1\) See chapter 1 *supra*. 
competitive and discriminatory prices for such access. This factual situation creates a host of regulatory dilemmas. Should the law regulate the access terms to the port? Should a different rule be applied if the port owner also operates a shipping service which competes with firms seeking access to its facilities, or if the owner is also a manufacturer? Should the regulatory policy change if the monopoly is created by a government-imposed barrier to the erection of a competing port? Which regulatory tools should be used in order to regulate the natural monopolist’s conduct, if at all? These are some of the questions this chapter addresses.

The chapter is organized as follows. The second section introduces and analyzes the considerations that arise in regulating natural monopolies. Section three follows by analyzing different regulatory tools available to the competition authorities and courts. Section four concludes the chapter.

5.2: Considerations in Regulating Natural Monopolies

5.2.1 Economic characteristics of natural monopolies

‘Natural monopolies’ are, as their name indicates, first and foremost, monopolies: A single ("mono") firm has dominant market power in a market for a differentiated good. However, they are a special kind of monopoly: a ‘natural’ one.

The unifying characteristic of natural monopoly industries is the ability of a single firm to provide a good or a service at lower cost than a set of firms in a given industry. Natural monopolies are the result of large internal economies of scale relative to the size of the market. Due to an inherent and persistent tendency to decreasing long-run average unit costs over all or most of the extent of the market, no combination of several firms can produce the industry output as cheaply as it can be provided by a single supplier. The introduction of additional suppliers thus creates a wasteful duplication of facilities and a significant increase in cost not normally justified by any benefits to consumers. Under

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2 This example is based on an actual EC case, B and I Line v. Sealink Harbours [1992] CMLR 255. There, Holyhead Port was the only available British port in the central corridor of ferry journeys between Great Britain and Ireland and could not be duplicated due to geographical constraints. Holyhead Port was both owned by Sealink and was the base for a ferry service operated by it, which competed with other ferry operators.
such circumstances, monopoly is accepted as the most appropriate industry structure.\textsuperscript{3} This is why such monopolies are termed "natural": They result from the natural conditions of the market. The geographic scope of the market may encompass a separate geographic location in a domestic market, the whole domestic market or even the global market.\textsuperscript{4} Natural monopolies may arise, for example, in connection with railroad facilities, harbors,\textsuperscript{5} airports,\textsuperscript{6} airlines,\textsuperscript{7} airline computerized reservation services,\textsuperscript{8} newspapers in small towns,\textsuperscript{9} stock exchange information,\textsuperscript{10} specially constructed buildings,\textsuperscript{11} or any other traded good.\textsuperscript{12}

\textsuperscript{3} For example, see C. D. Foster, Privatization, Public Ownership and the Regulation of Natural Monopoly, (Oxford: Blackwell, 1992); Michael Waterson, Regulation of the Firm and Natural Monopoly (Oxford: Basil Blackwell, 1988); Kenneth E. Train, Optimal Regulation- The Economic Theory of Natural Monopoly (Cambridge, Mass.: The MIT Press, 1991); W. J. Baumol, E.E. Bailey and R.D. Willig, "Weak invisible hand theorem on the sustainability of multi-product natural monopoly", (1977) 67 Am. Econ. Rev. 350; Richard Posner, "Natural Monopoly and its Regulation", (1969) 20 Stan. L. Rev. 548. Natural monopoly can also be defined by using the more technical concept of subadditivity. See W. J. Baumol, "On the Proper Cost Test for Natural Monopolies in a Multi-product Industry" (1977) 67 Am. Econ. Rev. 809 (Production costs of one firm are sub (less) than if one adds the costs of two or more firms that divide the output). For case law definitions of natural monopoly see, for example, the U.S cases of Northern Natural Gas Co. v. Federal Power Community, 399 F. 2d 953, 965 (D.C.Cir., 1968)(Natural monopoly arises where most efficient allocation of resources results in a single supplier); Ovtron Corp. v. General Motors Corp., 295 F. Supp. 373, 377 n.3 (S.D.N.Y. 1969) ("A monopoly resulting from economics of scale, a relationship between the size of the market and the size of the most efficient firm such that one firm of efficient size can produce all or more than the market can take at a remunerative price, and can continually expand its capacity at less cost than that of a new firm entering the business. In this situation, competition may exist for a time but only until bankruptcy or merger leaves the field to one firm. In a meaningful sense, competition is self-destructive.").

\textsuperscript{4} See, for example, the EC case of 6/73 and 7/73 Commercial Solvents v Commission 1974 ECR 223 (Commercial Solvents was the only producer in the world on an industrial scale of raw materials from which the drug for curing tuberculosis could be made).

\textsuperscript{5} See, for example, the EC cases of B and I Line v. Sealink Harbours, supra, note 2, and Sea Containers v. Stena Sealink (Holyhead), OJ 1994 L 15/8 (Sealink owned and operated a harbor located at Holyhead, Wales. There was no other harbor, or potential harbor, available for use by car ferries in that part of England or Wales, and Holyhead carried a very large proportion of the transit traffic between Ireland and Britain.).

\textsuperscript{6} See, for example, the Israeli case of Sherutei Teufa and the EC case of Disma, Twenty-Third Report in Competition Policy (1994) para. 80, p. 223 (Both involving the only network of pipelines for distributing airline gasoline). See also the New Zealand case of Auckland Regional Authority v. Mutual Rental Cars (Auckland Airport) Ltd (1988) 2 NZBL 99-110( Access to Auckland airport, the only airport in Auckland, of a car rental company wishing to operate a car rental service from the airport in competition with the incumbent car rental company deemed essential).

\textsuperscript{7} For example, the domestic airline market in New Zealand is not large enough to support two firms competing head to head.


\textsuperscript{9} Lorain Journal Company v. United States 342 U.S. 143 (1951)(A single newspaper was a natural monopolist in the daily newspaper market in Lorain, Ohio. The newspaper disseminated news and advertising to 99% of the families in Lorain. Once a radio station operating from a near-by town started to compete for its advertising business, it refused to sell advertising space to firms that advertised in both channels. Yet it can be argued that for the purpose of the lawsuit the relevant market should have been
A related phenomena involves government-created essential facilities.\(^\text{13}\) Such facilities exist where for policy reasons a facility or a service cannot be duplicated. For example, environmental objections or land use restrictions may make it impossible to build a competing airport although market demand might be sufficiently large to support two airports. Other legal rules, such as intellectual property rights, may also restrict the ability of competing firms to operate in the market. Government-created essential facilities should be distinguished from natural monopolies, where the market can support only one facility for endogenous reasons.\(^\text{14}\) This difference is of great significance. Essential facilities can often be eroded by altering governmental rules or regulations. Once artificial barriers are removed, multiple firms could operate in the market. Natural monopolies, on the other hand, cannot be eroded by merely removing artificial barriers to entry into their markets. They can lose their "naturality" only if one of the two market conditions which define natural monopolies changes—either market demand grows significantly or technology changes such that economies of scale are eroded. While government regulations or policies can alter the patterns of market demand and

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defined as encompassing all the advertising channels available to local manufacturers and service providers, including the competing broadcasting company that operated in a close-by town. Lorain Journal did not possess a natural monopoly position in this market).\(^\text{10}\) See, for example, the U.S. case of Silver v. New York Stock Exchange 373 US 341 (1963)(Stock exchange information deemed to be an essential facility due to the fact that the market could not economically support a competing firm providing similar service).

\(^\text{11}\) See, for example, the U.S. case of Gamco v. Providence Fruit and Produce Building, 194 F. 2d 484 (1952)(A specially constructed produce market building deemed to be an essential facility since the market could not economically support a competing establishment).

\(^\text{12}\) The Israeli PVC market serves as an example of a natural monopoly market. There is only one producer of PVC in Israel. The ability of an Israeli PVC producer to export its products is limited: Exporting PVC by land from Israel is generally unfeasible due to political constraints. Export by sea bears significant transportation costs, as PVC is bulky relative to its price. Therefore, the main market for Israeli PVC producers is the domestic one. At the same time, the minimum efficient scale for production of PVC in Israel is very high in comparison to the domestic demand for PVC in Israel, causing the sole PVC producer in Israel to be a natural monopoly at the current level of demand. The transportation costs and other barriers to international trade work both ways, and generally offer some insulation from international competition for the local producer.

\(^\text{13}\) See, for example, the EC case of Centre Belge d'Etudes des Marches-Telemarketing S.A. v Compagnie Luxembourgeoise de Telediffusion 1985 E.C.R. [1983-5 Transfer Binder] Common Mkt Rep. (CCH) 14,246 (the "Telemarketing case") (R.T.L. had a legal monopoly to operate the only television station. It announced that it would accept telemarketing advertising spots only if its agent's telemarketing center was used, thus putting the plaintiff out of business. The ECJ found, \textit{inter alia}, that a firm can be in a dominant position within the meaning of Article 86 where it enjoys a legal monopoly in the market and, by reason of law, there can be no or very little competition in the market).

\(^\text{14}\) See section 5.3.5 A.I.(i) \textit{infra} for an elaborated discussion of the differences between natural monopolies and other essential facilities.
technology, this is generally an indirect effect of rare occurrence. Yet due to the similar effects of both natural monopolies and essential facilities on the market and the fact that competition policy takes as a given government-imposed barriers, both will be analyzed in this chapter.

5.2.2 The economic effects of natural monopolies

Where market demand can support only one efficient-sized firm, a natural monopoly has an absolute advantage over other market structures: It is the only market structure that takes full advantage of internal economies of scale. Consequently, the costs of production can be lower under a natural monopoly structure than under any other market structure.¹⁵

Natural monopolies may create, however, great economic costs. As noted in Chapter 1 above, natural monopolies suffer from all the economic costs of monopoly. Foremost, they have economic incentives to abuse their monopoly power to charge monopoly rates and to restrict output. Although natural monopolists are able to charge the lowest prices for a given widget, assuming that their goal is to maximize profits they have strong incentives to take advantage of their market power. Since their market position is secured by market conditions, they may, in many cases, price up to their profit-maximizing level. Using the above example, the monopolist port owner may charge ship operators a monopoly price, which builds upon their own profit. This will inflate the market price for products shipped by these operators and enable the port owner to reap some or all of the profits made by producers. Such conduct reduces economic efficiency by diverting society's productive energies to less valued activities and thereby distorting resource allocation away from the maximum satisfaction of consumer wants.¹⁶

It also entails a redistribution of profits from consumers to producers and may bring about additional economic and social malaise that may arise from market power, depending on the natural monopolist's absolute size and economic power.

Yet natural monopolies do not always enjoy monopoly profits. A natural monopoly's ability to charge supra-competitive prices is limited in the following

¹⁵ This is, of course, an immediate result from the definition of a natural monopoly. See, for example, Richard T. Ely, Monopolies and Trusts (London: The Macmillan Company, 1912).

situation. Where users employ production methods for which there are other alternatives that utilize different inputs, a monopolist who raises the price of a specific input may either drive its users out of business or motivate them to switch to an alternative, although less efficient, production method. For illustrative purposes, suppose that widgets and gadgets are perfect substitutes. Widgets are produced without utilizing the natural monopoly's output, while gadgets are produced by utilizing it. If a natural monopolist raises the price of its outputs, this will either inflate the price of gadgets (if the gadget makers' total costs are higher than the market price for gadgets) and create substitution effects to widgets, or it may induce the producing firm to switch to the production of widgets, thereby not utilizing the monopolist's output. A rational monopolist, anticipating such effect, would price its input at a maximum price that while sharing in its users' revenues, will still enable them to produce and sell gadgets at a competitive price.

The natural monopoly's incentives to take advantage of its monopoly power are also at least partially regulated by the market if competition for the market exists. Where several firms with similar production costs compete for the ability to serve the market and these firms are prevented from engaging in anti-competitive conduct, competition for the market may reduce costs and prices. The most efficient natural monopolist will win the market and reduce productive inefficiency. Lower costs of production may also lead to a lower equilibrium price to consumers. Thus, although competition for the market will not necessarily reduce price to competitive levels, it may well reduce resource misallocations. Competition for the market may also lead, in special cases, to competitive price levels. For this outcome to prevail very low entry barriers (except scale economies) must exist. The Israeli case of Re agreements for the

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17 Competition for the market was first thoroughly analyzed by Harold Demsetz, in “Why Regulate Utilities?” (1968) 11 J. of Law and Econ. 55.
18 Frank Mathewson and Ralph Winter, “The Law and Economics of Vertical Restraints”, in Frank Mathewson, Michael J. Trebilcock and Michael Walker (eds.) The Law and Economics of Competition Policy (Vancouver, CA: The Fraser Institute, 1990) Chapter 5, at p. 131. Frank Mathewson and Ralph A. Winter, in “The Comparative Effect of Vertical Agreements: A Comment,” (1987) 77 Am. Econ. Rev. 1057, present three conditions which must be present for competition for the market to be efficient: (1) sellers compete for the market (2) exclusivity restrictions are on buyers, and (3) competition for the market is over the per-unit price of the product sold by sellers to buyers.
19 The fact that competition for the market does not necessarily achieve the same economic results as competition in the market was acknowledged, for example, in the Canadian Nielsen case. Director of Investigation and Research v. D&B Companies of Canada Ltd., (195) 64 C.P.R. (3d) 216 (Competition Tribunal).
purchase of kosher flour for Passover serves as an interesting example of potential competition for a natural monopoly or a duopoly market. One of the traditions of Passover involves eating products made of specially made flour, kosher flour for Passover. Passover flour can be produced in any one of the twenty one flour mills operating in Israel. However, such production is not profitable for quantities which are smaller than 4000 to 5000 tons of flour, the reason being that diverting a flour mill from producing regular flour to producing Passover flour involves large investments. Given that the yearly demand for Passover flour in Israel is approximately 10,000 tons, the market can support a maximum of two Passover flour mills. Nonetheless, given that any one of the existing twenty one flour mills can potentially produce such flour and that the flour market suffers from excess production facilities, this creates competition for the market. Such competition would regularly reduce prices to competitive levels, given that the twenty one flour mills would compete for the ability to produce Passover flour.

Yet for competition for the market to maximize consumer welfare, it is also essential that no buyer or abuse its monopsony power and no supplier have control over an essential input for the production of the product. In 1993, the four largest buyers of Passover flour, whose combined demand exceeded 80% of the market demand, agreed to buy such flour from a specific flour mill. By so doing, the four created a de facto monopoly, since any other flour mill could not operate profitably, given that it could not sell the minimum quantity necessary. In exchange, the chosen flour mill agreed to sell to the four conspirators Passover flour at low and similar prices, and to sell such flour to all other customers only after receiving the agreement of the four, and at a higher price. The difference between the price paid by the four and that paid by other customers was to be divided equally between the four buyers and the flour mill. In other words, the higher prices paid by the competitors of the four buyers would, in fact, subsidize their cost of

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21 For analysis of the effects of competition for the market see also the Canadian Nielsen case, supra, note 19.
22 For an example of the latter see the analysis of the Nielsen case in Sub-section 5.3.5 C. II(iv) below.
flour. This arrangement prevented other market participants from enjoying the fruits of competition for the market.

An example of competition for the market that served to reduce prices below supra-competitive levels can be found in the U.S. case of National Reporting Co. v. Alderson. There the United States Tax Court required bids for the operation of four-track electronic court-reporting services by one competitor. Each year the market was thrown open, unless the existing contractor was performing satisfactorily and agreed to continue to perform at the same price. The numerous competitors that could potentially enter the market (six potential bidders in the relevant year) created competition for the market that served to reduce prices to competitive levels. Even though only one competitor at a time could serve the market, the low entry barriers into the four-track electronic reporting services and the fact that the market was thrown open every time an incumbent supplier of services wanted to raise its prices or performed unsatisfactorily, allowed the Tax Court to enjoy the benefits of competition that come about from competition in the market.

Natural monopolies also have incentives to discriminate in order to maximize their profits. In the port owner example, the port owner will have incentives to charge a higher price to a shipping operator shipping a product that is in high demand than from a shipping operator shipping a product which competes with substitute products.

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23 The Israeli Competition Authority Director found, inter alia, a violation of the Israeli Restrictive Trade Practices Act 1988 refusal to deal provision. Such provision was interpreted by the Director to include rejection to supply at a reasonable and non-discriminatory price. This finding is problematic, given that the abuse of monopoly power was actually performed by the four Passover flour buyers who abused their monopoly power in order to induce the flour mill to grant them low prices and to discriminate among its customers. The Director also based its decision on a finding of an anti-competitive agreement between the mill and the four buyers.

24 763 F.2d 1020 (8th Cir., 1985); 1985-1 Trade Cas. (CCH) P66,643. The court’s definition of natural monopoly as a market that can practically accommodate only one competitor, is inaccurate. While it is true that in natural monopoly markets market demand limits the number of competitors that the market can support to only one competitor, the definition used by the court is much broader and encompasses all kinds of situations where the market can support more than one firm, but a contractual or governmental constraint limits the number of firms that can operate in the market.

25 The fact that the market was thrown open each year and several firms could compete for the right to serve the Tax Court for the following year was regarded by the court as negating the natural monopoly status of a firm operating in it. Ibid. This analysis is greatly flawed. The fact that firms compete for the right to serve a specific market does not negate the fact that at each point of time only one firm can economically operate in the market.

26 For a detailed analysis see section 5.3.5 below.
Another set of issues arises where the natural monopolist is integrated with some competitors in the competitive segments of its industry or in another industry, the danger being that it might use its power and profits from the natural monopoly segment to extend its monopoly power to, and exploit it in, the competitive segments. 27 For example, where the natural monopolist’s output is required by competitors in order to gain access to a vertically integrated market, the monopolist has, in the absence of outside controls, the ability to restrict access and thereby extend its monopoly power to spheres outside the natural monopoly itself.

The vertically integrated firm might leverage its monopoly power either by cross-subsidizing its competitive arm(s), by engaging in tying, exclusive dealing or other predatory conduct, or by giving its competitive arm(s) supply benefits over potential rivals (discrimination). The first practice involves the use of profits earned from monopoly markets to fund its competitive markets. By setting low prices the firm can impose losses on its competitors and perhaps induce them to exit the industry. The integrated firm has the monopoly markets as a source of revenue to fund such activities. The same can be achieved by tying: refusing to provide supply to downstream consumers unless they also buy the competitive product from its affiliated competitive arm(s) or exclusive dealing, where the natural monopolist supplies only or mainly one or a number of firms (usually its affiliated competitive arm) and refuses to supply their competitors. Granting supply benefits involves giving competitors of a monopolist lower quality or higher priced supply than those given to its competitive arm. 28 Such conduct has significant effects on economic efficiency since the differences in the terms on which competing customers are able to acquire supply—differences that are not explained by the relative costs of serving them—may distort competition. Competition in a vertically

27 See, for example, the U.S. cases of United States v. Griffith, 334 U.S. 100 (1948)(The defendant owned several movie theatres in small towns that were capable of supporting only one theater. The defendant attempted to use the purchasing power it possessed in the natural monopoly markets to obtain exclusive run and first time movies for its theaters in competitive towns. The court enjoined future “package negotiations.”); Cantor v. Detroit Edison Co., 428 U.S. 579 (1979)(Electricity utility company found to violate section 2 of the Sherman Act by using its natural monopoly position in the distribution of electricity to restrain competition in the sale of light bulbs).

28 For example, the U.K. British gas managed in effect to maintain a monopoly position in gas by charging its related arm the marginal cost of carriage through the natural monopoly grid while requiring other carriers to pay average cost. See Foster, supra, note 3, p. 168-9.
related market is unlikely to achieve efficient results unless the monopolist has no incentives or is prevented from disadvantaging rivals to the detriment of competition.

Under the relevant market structure, the monopolist controls one activity which is vertically related to at least one other activity—either downstream or upstream, all of which form components of the end product sold to consumers. The natural monopolist may operate at all of the market levels and supply consumers with a product which is a bundle of the upstream and downstream activities. The natural monopolist's refusal to supply a competitor or to supply it on terms equal to those granted to its competitive arm may prevent a competitor from entering the market where the costs of establishing alternative supply source are prohibitively high and would outweigh its potential advantages. On the other hand, vertical integration of the monopolist with competitive activities may allow for the realization of intrinsic efficiency advantages (economies of scope) of performing the two activities by it.  

Territorial and other non-price restraints imposed by the natural monopolist on its downstream affiliates may also permit it to reduce transaction and overhead costs and to prevent free riding among distributors.  

The incentives of a natural monopolist to leverage its monopoly power into a vertically related competitive activity by creating a comparative advantage for its competitive arm over its rivals which is not based on real cost advantages depend on the relevant market conditions. Economic theory demonstrates that a monopolist cannot generally use vertical restraints to increase monopoly power. Under the single monopoly profit theory a monopolist can extract all of the monopoly profits available in the natural monopoly market without vertically integrating into a competitive market. The monopolist does not need to engage in anti-competitive activities in order to extract monopoly profits. Instead, it can charge a sufficiently high price in the monopolized market to all firms seeking to buy its products or services. The supra-competitive price inflates the market price of the end product and enables the natural monopolist to capture the monopoly profits from the sellers. The monopolist of a single link in the chain of production can thus appropriate the entire chain's monopoly profits by extracting a supra-

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30 See, for example, Continental TV Inc. v. GTE Sylvania Inc. 433 U.S. 36 (1977) (Restraint on intrabranded competition allowed when crucial to promote interbrand competition).
competitive price.\textsuperscript{31} A natural monopolist thus has no incentives to leverage its legitimately obtained monopoly power in one market into another, vertically related, market, unless vertical restrictions serve efficient ends.\textsuperscript{32}

The U.S. case of \textit{Paschall v. Kansas City Star Co.}\textsuperscript{33} serves as a good illustration of the application of the single monopoly profit theory. In \textit{Paschall} Star held a natural monopoly position in the newspaper market in Kansas City, Missouri. For many years Star used independent carriers to deliver its newspapers, although it retained the right to distribute the papers itself. When it proposed a discontinuation of its independent delivery system, 250 independent newspaper carriers filed an antitrust suit alleging violations of section 2 of the \textit{Sherman Act} for refusal to deal and attempted monopolization of the carrier market. The district court granted an injunction preventing the termination of the independent carrier contracts.\textsuperscript{34} On appeal, the Eighth Circuit affirmed.\textsuperscript{35} Following Star’s petition, the Eighth Circuit agreed to reconsider the case \textit{en banc}. The court reversed its panel decision and found that the Star’s decision to vertically integrate did not violate the \textit{Sherman Act}. Based on the single monopoly pricing theory, the majority concluded that Star’s decision to vertically integrate would not have unreasonable anti-competitive effects and in fact would result in lower prices and better service to consumers.\textsuperscript{36}

However, there are important limiting assumptions to the single monopoly profit theory. In numerous cases a natural monopolist might have incentives to leverage its

\textsuperscript{31} In economic terms, if the downstream industry is competitive so that the margin earned at that level is equal to the marginal cost of production, the monopolist chooses an input price so that the input price plus the competitive manufacturing margin yields a product price that maximizes profits (the marginal cost equals marginal revenue, where marginal cost includes the cost of the input). By choosing the appropriate input price, the monopolist ensures that the final product price is at a monopoly level, and it thus receives the entire monopoly profit on that product.

\textsuperscript{32} See, for example, Robert Bork, \textit{The Antitrust Paradox: A Policy At War with Itself} (New York: Basic Books, 1978) 225-45; George Stigler, \textit{The Organization of Industry} (1983); Note, “Refusals to deal by Vertically Integrated Monopolists” (1974) 87 \textit{Harv. L. Rev.} 1720, 1726 (“Even when a monopolist possesses sufficient market control to require new competitors to enter at both levels...he could not normally increase its profits by integrating into a competitive stage unless vertical integration reduced its costs.”).

\textsuperscript{33} 727 F. 2d 692 (8th Cir. 1984)(en banc).

\textsuperscript{34} 441 F. Supp. 349 (W.D. Mo. 1977).

\textsuperscript{35} 695 F. 2d 322 (8th Cir. 1982)(panel opinion).

\textsuperscript{36} \textit{Supra}, note 33, at p. 703-4. The dissent, on the other hand, pointed out that many customers would suffer price increases and reduced service. It also noted the desirability of preserving the 250 independent businesses. \textit{Ibid}, at p. 705-6.
monopoly power into a competitive market. First, the single monopoly profit theory does not apply where the monopolist is prevented from making monopoly profits. Price regulation creates incentives for a monopolist to circumvent regulation by operating at another level of commerce in which it can charge a monopoly price without restraint. Second, the theory does not apply where the monopolist’s price does not capture the monopoly rents from the vertically related market. For example, when markets are characterized by multiple types of buyers and price discrimination is not allowed or cannot be effectively facilitated, the monopolist can increase its profits by vertical integration. Third, where the natural monopoly faces a challenge (either from a more efficient natural monopolist or from a firm utilizing a new technology that will erode the natural monopoly position) and possible dissipation by new or existing firms, leveraging may be used in order to deter or destroy emerging competition. Vertical integration creates a barrier to entry into the monopolist’s market by requiring any prospective user to enter at two levels, instead of one. Fourth, if the downstream market is not competitive the monopolist can increase profitability by vertical integration. Here vertical integration reduces the monopolist’s cost of getting the product to the consumer. In such situations the leveraging of monopoly power may be economically harmful.

5.1.3 The Comparative Weight of Considerations for Regulating Natural Monopolies

37 Cross subsidization and cost misallocations are a major concern in price regulated industries. See, for example, the U.S. case of U.S. v. AT&T Co., 552 F. Supp. 131 (D.D.C. 1982) aff’d sub nom. Maryland v. United States 460 U.S. 1001 (1983)(The danger of cross-subsidization was one of the principle justifications for divestiture). See Sub-section 5.3.5 A infra.
38 See Section 5.3.5 infra.
39 For example, the monopolist might not be able to prevent arbitrage. Also, the nature of the product and business relationship may make the transaction costs of metering use prohibitive. Using input to gauge use often presents measurement problems. For example, where the product is knowledge, the “amount” of input cannot be conceptualized, let alone qualified and measured. To convert the value of knowledge to variable cost, it may be necessary to meter the output of the firm based on the knowledge. Metering output entails other obstacles, since it is open to abuse by the user. In addition, user fees based on output motivates users to under-utilize facilities and generate sub-optimal profits. David J. Gerber, “Rethinking the Monopolist’s Duty to Deal: A Legal and Economic Critique of the Doctrine of "Essential Facilities"”, (1988) 74 Va. L. Rev. 1069, 1090.
40 The monopolization proceedings against Microsoft were based, inter alia, on such alleged conduct. United States v. Microsoft Corporation Civ. Doc. No. 98-1232 (TPJ) (filed May 18, 1998).
41 David Reiffen and Andrew N. Kleit, “Terminal Railroad Revisited: Foreclosure on an Essential Facility or Simply Horizontal Monopoly?” (1990) 33 J. of Law and Econ. 419, p. 422.
In evaluating regulatory policy, it is crucial to consider the ways in which legal intervention affects the efficiencies and the incentives of market players. Regulation is not justified unless we are reasonably confident that it significantly improves social welfare, taking full account of the effects of regulation in chilling desirable behavior and other costs of regulation. Therefore, this section attempts to delineate the considerations which should be evaluated and weighed in regulating natural monopolies. Chapter 4.2 above presented the considerations as to whether to regulate mere monopoly. Natural monopolies pose similar questions, but some of the considerations that were relevant in the case of other monopolies have limited applicability where natural monopolies are concerned.

The short-term effects on price and quantity in both natural and unnatural monopoly markets are qualitatively similar. At the same time, it is more likely that the natural monopolist would be able to price closer to its profit-maximizing level than most other monopolies and would have a greater ability to engage in x-inefficiency, given that it is less restrained by other market participants. If no or weak competition for the market exists, the natural monopolist is limited only by market demand and by technological innovation. Even where competition for the market is strong, it does not necessarily serve to solve the resource allocation problem, given that the controlling monopolist will always have incentives to charge supra-competitive prices and to price-discriminate among customers. These considerations point strongly in favor of price, output and quality regulation.

An efficient policy should also take into account the inherent conflict between dynamic and static incentives created by regulation.\(^{42}\) Preventing the natural monopolist who achieved its position solely by fair and vigorous competition from charging supra-competitive rates for the use of its facilities or otherwise regulating its terms of trade could...

\(^{42}\) This tension was acknowledged by the EC Advocate General in his opinion in the *Oscar Bronner* case, Case C-7/97 *Oscar Bronner GmbH & Co. KG v Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG, Mediaprint Zeitungsvertriebsgesellschaft mbH & Co. KG and Mediaprint Anzeigengesellschaft mbH & Co. KG*. 1998 ECJ Clex Lexis 2901. See also the U.S. cases of *Lamb Enter Inc. v. Toledo Blade Co.*, 461 F. 2d 506 (6th Cir., 1972); *Blue Cross & Blue Shield United of Wisconsin et al., v. Marshfield Clinic and Security Health Plan of Wisconsin, Inc.* (7th Cir., 1995) 65 F.3d 1406; 1995-2 Trade Cas. (CCH) P71,120, cert. denied, 116 S. Ct. 1288 (1996)(Judge Posner stated that “the charging of a high price is, so far as potential competitors are concerned, an attracting rather than an excluding practice. Consumers are not better off if the natural monopolist is forced to share some of his profits with potential competitors.“).
dampen long-term incentives of other market participants to undertake similar investments in the future. Also, an existing or potential natural monopolist will have limited motivation to risk an investment in research and development to improve the efficiency of its assets where it cannot reap the full fruits of such investment, so that the social benefits of such ventures might be lost. In addition, forcing the natural monopolist to price at competitive levels and to share its facilities removes or reduces the incentives of other firms to invest in technologies that will erode the natural monopoly position, and may often preserve a natural monopoly. This effect is more important than under mere monopoly situations, since not only should an investor utilize available technologies, but it should also invest in researching new technologies that may erode the natural monopoly. The extent of regulation is thus an important factor in the development of competition in the specific market as well as in other markets that suffer from similar market conditions.

While these disincentive effects should not be lightly regarded, there are several considerations that limit their effect. First, we should distinguish between natural monopolies that were created by natural causes and their owner benefits from their fortitous ownership and natural monopolies that are the result of creative innovation. In the first type of cases there is a strong case to be made in favor of regulation since monopolistic rents may reflect good fortune rather than skill, foresight and industry. Similarly, the development of government-created essential facilities will also be rarely affected by such disincentive effect. Only in the second type of case will regulation create significant disincentive effects.

Second, even where the natural monopoly was created as a result of innovation, this does not necessarily entitle its owner to an indefinite stream of supra-competitive revenues. Given its secure market position, natural monopolies can exist for very long time periods. Limiting the revenues that can be obtained from the utilization of the asset

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45 Of course, some natural monopolies may result from both sources. For example, a natural monopoly may be the combined result of the fortitous ownership of a unique asset that was developed by its owner to further secure its market position and to create a more efficient facility or product.
46 Regulation will, nonetheless, reduce the market value of the asset. This, however, is not welfare reducing.
will not necessarily reduce incentives to invest in natural monopolies, as long as the regulator ensures that the asset owner is appropriately compensated at least for the costs (including the risk factor) incurred in developing the asset. Moreover, it is difficult to see the injustice of denying any "right" to indefinitely perpetuated monopoly profits and power, especially where this power is protected by unique market conditions.

Third, if the natural monopolist is allowed to enjoy some of the fruits of its innovation, firms will still have incentives to dethrone the incumbent natural monopolist or to seek more efficient production techniques and consumers might still have an incentive to build their own facilities rather than pay the monopolist monopoly rent. Only if price is regulated to competitive levels are these incentives destroyed altogether. Fourth, disincentive effects are very limited if competition is for the most part unlikely either now or in the foreseeable future. A fifth limiting consideration is the lower risk faced by a natural monopolist of free riding on its innovations.

A final concern with interventionist regulatory policies is that they may lead down the slippery slope to regulation as competition authorities have to impose trade terms on unwilling market participants and supervise them continuously.

5.1.4 Implications

A. Natural monopoly-the regulator’s domain

Once it is acknowledged that it is neither feasible nor even desirable for competitors to replicate the natural monopoly’s assets and that in most natural monopoly markets the market cannot perform its self-regulating task effectively, it follows that regulatory intervention may be necessary in order to set efficient trade terms. Regulated natural monopoly may well be the unavoidable by-product of a measure designed to attain a goal of undoubted worth not achievable by the market’s invisible hand.

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47 The argument is similar to that raised in the case of intellectual property rights. Although the innovator is allowed to enjoy the fruits of his innovation for a specified period, assumed to be sufficiently long to create incentives for other firms to innovate and for the innovator to cover his costs and make reasonable profit, the innovator is not entitled to an indefinite stream of revenues secured by law.

48 Unless, of course, the innovation creates stronger competition for the market.

49 See, for example, Valentine Korah, “Essential Facilities Obligation to License” (to be presented on April 7th 1999 in the Fordham Internation Conference on Intellectual Property); Philip Areeda, “Essential Facilities: An Epithet in Need of Limiting Principles,” (1990) 58 Antitrust Law Journal 841. This consideration is analyzed in Sub-section 5.3.5 C.III.i infra.
As noted above, this need for regulatory intervention has unattractive features that should be taken into account when evaluating the efficiency of intervention. But it is may well be an unavoidable solution once we decide that the natural monopolist’s assets must be regulated in order to achieve economic efficiency. Accordingly, regulation should be carefully structured so as to minimize the direct and indirect costs of intervening in the market. Proper regulation should promote the productive efficiency which is inherent to the natural monopoly, while taking into account the tensions between dynamic and static efficiency considerations. This Chapter delineates the specific modes of regulation which are appropriate for natural monopolies.

B. Natural Monopolies Require Different Treatment from Other Monopolies
As the above analysis demonstrates, natural monopolies have different economic characteristics and effects from other monopolies. Yet it is rarely the case that competition policy distinguishes between natural and other monopolies. This is a result of two main factors. First and foremost, natural monopolies were traditionally presumed to be outside the domain of competition law and to be regulated by other governmental means. This conclusion was based on the following assumptions. Since natural monopoly is the most efficient market structure possible where technological economies exist, competition would not seem desirable as it may interfere with productive efficiency or with innovation. In this event, competition in the market is not sustainable nor is it socially desirable. Accordingly, competition policy, which strives to create and maintain the conditions for workable competition, should not be applied to natural monopoly markets.

While it is true that large, influential, natural monopolies have traditionally been regulated by sector-specific regulation, the same is not true with regard to many other natural monopolies. In practice, natural monopolies exist in markets which are not subject to direct regulation, since they are too small or too insignificant to justify a special

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50 Areeda and Kaplow suggest that “where there is a natural monopoly, there is little room for antitrust policy except insofar as (1) the maintenance of monopoly ceases to be inevitable or (2) power in the monopoly area radiates outward into areas where competition is both possible and desirable. Phillip E. Areeda and Louis Kaplow, Antitrust Analysis: Problems, Text, Cases (Boston: Little, Brown and Co., 4th ed.) at p. 129.
administrative solution. These natural monopolies usually come under the scope of competition policy by default. Moreover, given the criticism of direct regulation for its substantial costs and limited effectiveness, many jurisdictions are tending in a new direction in which natural monopolies traditionally regulated by direct regulators are transferred to the regulatory domain of competition laws.

The second reason for similar treatment of natural and other monopolies may be based on the inability to distinguish, in practice, between natural monopolies and other ones. In reality, determining whether a market can be characterized as a natural monopoly can be difficult. For example, changing technology may prevent an accurate characterization of a market as a natural monopoly. Another important factor is market definition. As observed in Chapter 4.1 above, different jurisdictions may define geographic and product markets in a different manner which may result in different findings of natural monopoly markets.

Yet these definitional problems do not necessarily imply that there is no place for a separate set of rules to be applied in the case of natural monopolies. They only imply that in border-line cases, where it is unclear whether a firm enjoys a natural monopoly position or is a mere monopoly, mere monopoly should be used as the default option.

C. Importance of Regulation of Natural Monopolies in Small Economies

While the above analysis may be translated into an argument in favor of creating different regulatory rules for natural monopolies in any economy, without regard to size, in small economies such regulation is of much more significance. While most natural monopolies in large economies can be found, apart from public utilities that are already regulated, in service industries in small towns or remote areas or in connection to unique physical

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51 In the U.S. regulated natural monopolies can also come under the scope of competition laws. Until 1973 monopolies subject to regulatory control of state or federal agencies assumed to be exempt from competition laws. In the 1973 case of Otter Tail the Supreme Court addressed this issue and held that regulated industries were subject to possible liability under the Sherman Act. Otter Tail Power Co. v. U.S 410 U.S. 366 (1973).

52 See, for example, Foster, supra, note 3.

facilities, in small economies natural monopolies may also be more commonly found in geographic markets that encompass the whole domestic market. Accordingly, their impact and effect is much stronger in small economies than in large ones. Thus, although the optimal policy towards natural monopolies should not be qualitatively different, quantitative differences make the regulation of natural monopolies in small economies more important.

In fact, several small jurisdictions have taken a few steps in this direction. While in large economies such as the U.S. and the EC natural monopolies are governed by basically the same rules that govern all firms with market power with limited exceptions, in Australia, for example, new legislative provisions create a new and different path for the regulation of natural monopolies, which is separate from the path regulating all other monopolies. In many other small economies the basic rules that govern monopolies are applied more strictly in the case of natural monopolies.

5.3 Regulatory Tools for Natural Monopolies

This section is concerned with the tools available to the competition authorities in order to regulate natural monopolies. It explores a wide spectrum of conventional as well as non-conventional methods for regulating natural monopolies by competition laws. These range from one-time structural measures to conduct regulation of trade terms of varying degrees of intensity. Regulatory alternatives such as public ownership, franchise bidding and direct rate regulation are also viable regulatory solutions not to be readily discarded. While exploration of some of the regulatory tools builds upon their special characteristics, its main focus is on the tools available to competition authorities and competition courts or tribunals to regulate natural monopolies. The surveyed tools apply

55 See discussion infra.
56 For an extended overview of these options in the context of the natural monopoly transmission and distribution of electricity see Michal S. Gal, “Traditional Natural Monopolies in Transition: The Case of the Electricity Supply Industry” (L.L.M. Thesis, University of Toronto, 1996).
in addition to the competition rules that regulate the economic activity of all monopoly firms operating in the market surveyed in Chapter 4.3.

Different regulatory tools serve sometimes as complements, rather than substitutes. For example, price regulation or prohibiting price discrimination may affect the monopolist’s incentives to leverage its monopoly power into a vertically related market, and thus its activities should be much closely regulated in such situations. Accordingly, in evaluating the effectiveness of regulatory tools, one should take into account not only their effectiveness in preventing a specific type of conduct, but also their effect on the incentives and the ability of the regulated entity to circumvent such regulation.\(^57\)

5.3.1 Condemnation of Natural Monopoly *Per Se*

Any policy towards natural monopolies should not condemn natural monopolies *per se*. Moreover, attaining or maintaining a natural monopoly position should not constitute a *per se* violation of competition laws. The specific intent to become a natural monopoly, when not accompanied by exclusionary practices, should also not be deemed anti-competitive. This policy prescription is based on the unique characteristics of a natural monopoly market. By definition, only one firm can operate economically in such markets. Market conditions themselves make specific intent to gain monopoly power, its possession and its exercise inevitable. Since the successful competitor for a natural monopoly market captures the entire market, all conduct by the eventual natural monopolist is exclusionary by nature.\(^58\) In taking into account this economic reality, these guidelines should be adopted. Otherwise, the most efficient market structure- that of a natural monopoly- would not be achieved.\(^59\)

\(^{57}\) For example, see the U.S. case of *Keogh v. Chicago & N.W. Ry.*, 260 U.S. 156 (1922)(The court forbade antitrust damage actions by shippers based on alleged excessive carrier’s rates because such awards would work a discriminatory preference in favor of the plaintiff relative to other shippers, which offends the statutory requirement of uniform rates for all shippers). Reaffirmed in *Square D Co. v. Niagara Tariff Bureau*, 476 U.S. 409 (1986).

\(^{58}\) Mary Ellen Schill “Note: Refusals To Deal By Single-Firm Monopolists - Should We Rob Peter To Save Paul?” (1988) 63 Notre Dame L. Rev. 214

\(^{59}\) This was acknowledged in the U.S. case of *Lamb Enterprises, Inc. v. Toledo Blade Co.*, 461 F.2d 506, 515 (6th Cir.), 461 F.2d (["[i]f success in such a venture could become a *per se* violation of the antitrust
Per se condemnation of natural monopolies is also problematic given the nature of available remedies. The basic remedy that can deal effectively with market structures which violate competition laws is their break-up. Break-up is not an efficient solution in the case of natural monopolies, where the existing industry structure is the most efficient structure possible. Any break-up of a natural monopoly would only reduce productive efficiency by increasing production costs and needlessly sacrificing economies of scale. It would also likely penalize consumers by constraining firms to uneconomical sizes and by removing incentives to grow through efficient performance.\(^6\) Moreover, the tendency of resources to gravitate towards their most valuable uses where voluntary exchange is permitted, would eventually recreate a natural monopoly by realizing economies through internal expansion or through merger. Thus, structural break-up of natural monopolies is a costly and a non-sustainable remedy.

This position has been adopted, with limited variations, by all jurisdictions. In the U.S., where natural monopolies are debated more than anywhere else, courts have held that a natural monopolist only violates the Sherman Act if it acquires or maintains its power through the use of means which are exclusionary, unfair or predatory. This was first recognized in *Alcoa*, where it was stated that unavoidable monopolies, such as natural monopolies, do not constitute a violation of the Act.\(^6\) Subsequent decisions have made it clear that competitive actions to win a natural monopoly market—even if they involve a clear attempt to monopolize a market—are not illegal.\(^6\) Competition for the market is legitimate, as long as the firm has not engaged in anti-competitive tactics in

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\(^6\) Demsetz, *supra*, note 17, p. 198.

\(^6\) *United States v. Aluminum Co. of America* 148 F. 2d 416 (2nd Cir., 1945).

\(^6\) See, for example, *Union Leader Corp. V. Newspapers of New England, Inc*. 180 F. Supp. 25 (D. Mass., 1959)(Competition for the market in a “one newspaper city”. The court stated that “a person does not necessarily have an exclusionary intent merely because he foresees that a market is only large enough to permit one successful enterprise, and intends his enterprise shall be the one and that all other enterprises shall fail. If the evidence shows that in laying his plans and executing them he contemplates and utilizes only superior skill, foresight, and industry, he has not an intent which is contrary to law.” at p. 140); *Lamb Enterprises, Inc. v. Toledo Blade Co.*, 461 F.2d 506, 514 (6th Cir.), cert. denied, 409 U.S. 1001 (1972)(The court held that plaintiff and defendants were competing for a natural monopolist position, and since only one competitor could possibly survive, the defendant's success did not constitute a *per se* violation of the Sherman Act.).
order to obtain its position. Similar rules have been adopted by all other jurisdictions regulating natural monopolies, although no elaborate discussion usually follows.63

5.3.2 Regulation of Anti-Competitive Practices in Achieving or Maintaining a Natural Monopoly Position

The special characteristics of a natural monopoly market raise an intriguing question. Given that the eventual outcome of competition for a natural monopoly market is that only one firm will operate in it, should competitors for the market be immune from monopolization allegations based on alleged anti-competitive conduct that served to achieve their monopoly position in the natural monopoly market? Can a natural monopolist claim that by engaging in predatory tactics it simply hastened the inevitable—its becoming the sole supplier for a given market? Furthermore, given that co-existence creates wasteful duplication of resources and fails to realize lowest-cost production, can the natural monopolist argue it has in fact enhanced consumer welfare by shortening the struggle to win the monopoly position?64 A similar set of questions can be posed with regard to the maintenance of a natural monopoly position: Can the natural monopolist’s anti-competitive actions to remove a rival from the market in order to maintain its monopoly position be justified by the fact that the struggle to win the market would have resulted anyway in a sole supplier servicing the market and that the incumbent’s actions have reduced the costs of the elimination period to the benefit of all consumers?65

The answer to all the above questions should be negative. Anti-competitive methods used to achieve or maintain the position of monopoly should lead to a competition law violation, even if they serve to shorten the delays in realization of lowest

63 See, for example, the Canadian Nielsen case, supra, note 19; The Israeli Passover Flour case, supra, note 20. The EC Sealink case, supra, note 2; The New Zealand case of Union Shipping New Zealand Port v. Port Nelson (1990) 3 NZBLC 99-182.
64 Numerous U.S. antitrust defendants have contended that in the struggle for control of a natural monopoly market the antitrust laws should not govern the competition because the eventual winner will be a monopolist either way, and in most cases will merely be a replacement for a previous monopolist. See, for example, Poller v. Columbia Broadcasting System, 368 U.S. 464 (1962); City of Cleveland v. Cleveland Elec. Illuminating Co., 538 F. Supp. 1306 (N.D. Ohio 1980); Helix Milling Co. v. Terminal Flour Mills Co. 523 F.2d 1317 (9th Cir. 1975), cert. denied, 423 U.S. 1053 (1976).
production costs. The most important concern is that anti-competitive practices might prevent the most efficient competitor from winning the market. If a less efficient, higher cost competitor achieves a position of monopoly power through anti-competitive practices, productive efficiency is reduced and the monopolistic price might be higher.66

Should the above conclusion change if the firm that engaged in anti-competitive practices is more efficient and its actions shortened the elimination process? Strong reasons still support condemning its conduct as anti-competitive. First, once a court allows more efficient firms to shorten the struggle for the market by engaging in anti-competitive conduct, it must be able to ascertain which firm competing for the market is most efficient. Competition courts usually lack the tools to ascertain economic superiority. Especially in a world of rapid technological changes, it is impossible to require courts to play a determinative role in choosing the most efficient competitor. Moreover, the very fact that private investors have seen fit to compete for a natural monopoly market suggests that they believe they possess a comparative advantage over their rivals. This fact makes the superiority determination by a court almost impossible. It is much more efficient to put superiority to the market test by eliminating obstacles to efficient competition.

Second, if different rules apply to natural and unnatural monopolies with regard to their engagement in anti-competitive conduct, courts would have to establish that firms that claim to be natural monopolies actually enjoy such a position in the market. This introduces another element into the legal process that does not contribute to the creation of efficient market operation rules. Third, there are benefits in setting similar standards of conduct to all firms in the market, unless market conditions require otherwise. Thus, the law should condemn illegitimate business conduct that firms use to achieve or maintain monopoly power, in order to ensure that the most efficient competitor wins the natural monopoly market and that the winner is constrained in the exercise of its legitimately obtained market power, to the extent possible, by market forces. This policy prescription is applied in all jurisdictions.67

66 Mathewson and Winter, supra, note 18.
67 This is the judicial opinion of U.S. courts. See, for example, Affiliated Capital Corp. v. City of Houston 700 F. 2d 226 (5th Cir., 1983)(Cable television market characterized as natural monopoly. Anti-competitive conduct in order to win a franchise for the market found to constitute a violation of the Sherman Act); Helix
5.3.3 Regulation of Monopoly Pricing and Output

As noted above, natural monopolies have economic incentives and enjoy a market position that enables them to (ab)use monopoly power in order to realize 'monopoly rents' by charging substantial monopoly prices and by limiting output. Market forces are generally incapable of regulating such incentives where natural monopolies exist. An important issue is whether competition law should prevent the monopolist from realizing supra-competitive rents by setting efficient prices for its goods/services and by regulating output to replicate competitive levels of service and prices,68 provided that doing so is consistent with the economic viability of the firm. Pricing regulation by industry-specific regulators was the traditional solution to the problem of natural monopoly.69

The arguments for and against pricing regulation have been extensively analyzed in chapter 4.2 above, in the context of mere monopolies. The same arguments apply in the context of natural monopolies, although a monopoly's natural protection may enhance or reduce the comparative weight of such considerations. As noted above, the comparative inability of the market to regulate natural monopoly pricing and output points more strongly towards regulation than in the case of mere monopolies.70 Nonetheless, dynamic

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68 Some natural monopolies cannot operate efficiently at marginal cost. Economics of scale imply that the average cost curve of the firm is downward sloping. Declining average costs mean that marginal cost is below average cost. Therefore, when price is set at marginal cost, the firm loses money on each unit sold. This fact should not be overlooked when setting efficient prices.


70 For the use of a legal monopoly position to set monopolistic trade terms see, for example, the Belgian case of Eurosport v. Cable Companies, Belgian Competition Council, 22 July 1996, reported in National Reports, [1996] 8 ECLR R-202 (Flemish and Brussels cable television companies refused to transmit Dutch language Eurosport broadcasting until a fees dispute was settled. Eurosport proposed to the companies that
considerations should also be considered. The incentives of firms to invest resources in order to become a natural monopoly or to erode its position depend, to a considerable degree, on the extent of pricing regulation. Clearly, such incentives are greatest when no price regulation is adopted, because the monopolist may well be receiving a rent that far exceeds its initial investment. If the natural monopolist is allowed to cover its initial and on-going investments in its facilities (cost and risk) and to retain at least some of the supra-competitive rents, then the incentives of firms to become natural monopolies or to erode them will be reduced but not completely eroded, while limiting the monopolist’s excess profits. Such a policy will still reward the natural monopolist for investing in the facility, but at the same time decrease the ultimate price to consumers and ensure a more efficient allocation of investment resources in society.\footnote{71}

Pricing regulation is most strongly justified where the monopoly position was obtained and is maintained due to a government license, unless it is conceived that high prices would create strong political pressure to reduce artificial barriers into the market. The correlation between a legal franchise and the risk of private abuse is likely to be high given the durability of the granted monopoly. Also, price regulation in such cases has very limited effect on the dynamic incentives of firms, given that the monopoly position was not a result of competitive efforts.\footnote{72} Moreover, in such cases the legitimization of public controls is relatively straight forward. Where monopolies are created by law, one can argue that the recipients are bound by consent, through conditions contained within the original grant or the unique market conditions artificially created by government intervention in the market place, as a \textit{quid pro quo} for the market power.\footnote{73}

Another factor not to be overlooked when evaluating pricing and output regulation involves its impact on the incentives of firms to vertically integrate in order to circumvent pricing regulation. Vertical integration, not justified by scope economies, may create

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they should transmit its programs free of charge until the dispute has been settled as to not deprive subscribers of its coverage of the Atlanta Olympics. The companies refused. The Belgian Competition Council found that the cable companies had abused their dominant position by refusing to transmit the programs free of charge.

\footnote{71} Gerber, \textit{supra}, note 39, p. 1102.

\footnote{72} Unless firms competed for the government license. However, in such cases the firm that succeeds in obtaining the government license is usually the lowest-cost firm, so that the prices it charges are not maximal monopoly prices.

inefficient results and thus increases the need for closer regulation of a vertically integrated monopolist. The decision whether to price regulate should also rest on the ability of competition courts and authorities to perform the task effectively, as analyzed in Chapter 4.2 above.

Most jurisdictions apply the same rules that regulate mere monopoly pricing and output decisions to natural monopolies. As elaborated in Chapter 4.2 above, these range from special provisions that empower competition authorities to regulate monopoly pricing and output (Malta) through treatment of “unfair” or “inequitable” monopoly pricing and limitations of output or quality as violations of competition laws (EC, Israel, U.K.) to non regulation of monopoly pricing and output decisions unless pricing tactics are used as a tool to achieve anti-competitive results (U.S., Canada). Where competition authorities are authorized to perform price regulation, this power is more strictly used in the case of natural monopolies than where other monopolies are concerned. Some jurisdictions have recently adopted a special set of rules that enables the competition authorities to regulate the price and output decisions of natural monopolies (New Zealand, Australia).

5.3.4 Regulation of Discriminatory Trade terms with no Vertical Integration

Natural monopolies may also have incentives to discriminate among customers in order to maximize their profits. For discrimination to be effective, three conditions have to be met: the discriminating firm must possess market power; it must be able to distinguish between consumers' demand elasticities; and it must be able to prevent arbitrage between customers who receive the better terms and those who receive worst terms. Discrimination can result from one of two conditions. It may be used as a method to maximize the profits of a monopolist resulting from a downward sloping demand curve and reflecting the different elasticities of demand for its good or service of different

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74 Some commentators argue that the essential facilities doctrine is sometimes used in the U.S. as a back door regulation on monopoly profits for unregulated natural monopolists. Where the monopolist is mandated to share its facilities with its competitors for the same terms of existing owners, this may even deprive the monopolist of its initial investment. Gerber, supra, note 39, p. 1108.

classes of users. Such discrimination allows the monopolist to expand output without simultaneously lowering its price to all customers.\textsuperscript{76} Alternatively, if the monopolist is vertically integrated into a competitive activity, discrimination can be used as an anti-competitive squeeze on competitors for predatory reasons. This section focuses on the first type of discrimination, while the next focuses on the second. Price discrimination will first be analyzed, followed by an analysis of non-price discrimination.

\textbf{A. Price Discrimination}

The welfare effects of price discrimination depend on a complex analysis of the relevant market conditions. Perfect price discrimination, whereby the monopolist charges each of its consumers a price based on the consumer’s specific demand elasticity, allows the natural monopolist to expand its output and produce at quantity levels that are equal to market demand. This may allow new competitors to enter the market or it may allow existing firms to expand in it. For example, firms that could not operate profitably under the one-price-for all set by the monopolist may operate profitably if the monopolist’s input is priced in accordance to their individual demand elasticity. Perfect price discrimination thus increases short-run total welfare, while redistributing of wealth from consumers to the monopolist.

Third degree price discrimination, whereby the monopolist differentiates between different classes of consumers based on broad categorizations, might be better or worse than nondiscriminatory pricing from an efficiency viewpoint, depending on the shapes of the demand and cost curves facing the monopolist. There are three sources of inefficiency present in third-degree price discrimination. The first is that price exceeds marginal cost,\

\textsuperscript{76} For example, the Terminal Railroad Association exercised its market power through a “bridge arbitrary”, which was a toll of two cents per hundred-weight for goods travelling into or out of St. Louis. There was no analogous charge for goods passing through St. Louis over one of the bridges in either direction. This allowed the Association to differentiate between customers who had no alternative but to use its facilities (going to or from St. Louis) and those which had other alternative routes of crossing the Mississippi elsewhere. \textit{United States v. Terminal Railroad Ass'n}, 224 U.S. 383, 410-1 (1912); Reifen and Kleit, \textit{supra}, note 41, p. 431. Another example of price discrimination in order to maximize price can be found in the EC \textit{Commercial Solvents} case. There, Commercial Solvents produced aminobutanol which had two uses: one of which (anti-tuberculosis drugs) commanded monopoly profits and one of which (paint emulsifiers) did not. Commercial Solvents attempted to maximize its profits by price discrimination. Price discrimination proved difficult due to a secondary market in the product: the low-cost buyers were reselling the product to the higher-valued pharmaceutical use. \textit{Commercial Solvents}, \textit{supra}, note 4.
which results in output inefficiency. The second is consumption inefficiency, because of unexploited opportunities for further trade. The third is that consumers may have to expend resources that do not benefit the firm in order to obtain a low price.\textsuperscript{77} The closer price discrimination is to perfect price discrimination, the more likely it will have positive total welfare effects from a static point of view, and \textit{vice versa}.

Where the monopolist’s potential customers operate in several different markets, price discrimination may enable the utilization of more efficient production techniques in some markets. If some of the monopolist’s customers operate in one competitive market and some operate in another, and assuming that the monopolist is mandated to set only one price for all its customers, its profit-maximizing price might be so high as to serve only one market. This, in turn, might prevent customers in the second group from utilizing the most efficient production technique in which the monopolist’s widgets are an essential element. In other words, discrimination increases total output where at the single price equilibrium one group of consumers will not buy any inputs from the monopolist. Not only is welfare improved by such price discrimination, but this is a Pareto increase in welfare. No one is harmed— one group of consumers is unchanged and the other group gains.\textsuperscript{78} Yet in situations where there are linear demand curves and where both demand groups buy positive amounts in the single price case, total surplus always falls when discrimination is allowed. In cases of non-linear demand curves the welfare result can be either positive or negative.

Price discrimination also affects the dynamic incentives of firms operating in the market. The fact that the monopolist reaps all or almost all of the welfare gains from trade might influence the incentives of downstream or upstream firms to become more efficient or to enter their market in the first place. On the other hand, it may create incentives for downstream or upstream efficient firms to innovate in order to erode the natural monopoly’s position.

In general, the welfare effects of price discrimination are an empirical question. Given the indeterminate and ambiguous welfare effects of certain types of price

\textsuperscript{77} Carlton and Perloff, \textit{supra}, note 75, p. 449.

discrimination, the desirability of a simple prohibition against price discrimination is questionable. Yet all competition laws surveyed apply similar rules to all market situations, not taking into account the above factors. A more efficient rule would recognize a defense where price discrimination has recognizable welfare-enhancing effects.

The most interventionary policy against price discrimination can be found in the common-law’s treatment of common carriers, which prohibits price discrimination that is not based on real economic cost differences. Under common law a common carrier has to discharge its service obligation without discrimination among customers who present common carrier with similar costs- a prohibition that was designed to control the rent extraction threat posed by a price discriminating monopolist.79

In the EC, natural monopolies, like mere monopolies, are prevented from charging discriminatory prices. Section 86(c) of the Treaty of Rome states that abuse of dominant position may consist of “applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage...”80 The focus is thus on the effect of discrimination on competition. The prohibition applies whether the favored competitors are associated with the dominant firm or not. Yet under this prohibition the monopolist does not violate the law if its trade terms, albeit discriminatory, enable its competitors to remain in business if they are reasonably efficient.81 It also does not apply where different customers operate in different markets

79 Epstein, supra, note 73. Under the common law of restraint of trade natural monopolies were constrained from charging whatever price the market will bear. This constraint was based on a public-utility-like justification. See Michael J. Trebilcock, “The Common Law of Restraint of Trade: A Legal and Economic Analysis,” (Toronto: Carswell, 1986). The principle that freedom of contract has to be limited in a case of a statutory or de facto natural monopoly can be traced to the 1810 case of Allmuit v. Inglis 12 East 525, 104 Eng. Rep. 206 (K.B. 1810).
80 Section 86(c) of the Treaty of Rome 1957.
81 National Carbonizing Co. Ltd. v. Commission, Case 109/75 1975 E.C.R. 1193 (C.J.); National Carbonizing Co. Ltd., O.J. L 35/6 (1976)(Commission)(National Coal Board (NCB) had a dominant position on the U.K. market both for coal, which is the raw material for making coke, and for coke. National Carbonizing, a competing coke-producer, argued that the price at which NCB sold coal for coke-making was too high, and the price of industrial coke sold by NCB too low, to enable it to produce industrial coke and sell it at a profit in competition with plaintiff. The Commission rejected the complaint on the grounds that the plaintiff was unaffected in the market for domestic coke, since the price for coal still enabled it to remain in the business if it was reasonably efficient.) See also Napier Brown-British Sugar, O.J. L 317/47 (1988)(Commission)(The Commission found that British Sugar had infringed Article
and do not compete with one another. Many other jurisdictions, including Israel,\textsuperscript{82} Malta,\textsuperscript{83} and Sweden\textsuperscript{84} have adopted similar prohibitions.

Section 50(1)(a) of the Canadian \textit{Competition Act} prohibits "any sale that discriminates, directly or indirectly, against competitors of a purchaser of articles...of like quality or quantity". However, for all intents and purposes there is no Canadian price discrimination legislation. Given the wording of the prohibition, the only occasion on which the price discrimination section is likely to be applicable is when two simultaneous purchases of like quality and quantity occur, which is seldom the case in practice.\textsuperscript{85}

U.S. law dealing with price discrimination is comprised of two relevant acts: The \textit{Sherman Act} and the \textit{Robinson-Patman Act}. Under the \textit{Sherman Act}, price discrimination does not constitute a violation unless it is part of a predatory tactic aimed at enhancing or creating monopoly power.\textsuperscript{86} In \textit{Brooke}\textsuperscript{87} it was decided by the Supreme Court that two prerequisites to recovery under section 2 of the \textit{Sherman Act} are that prices complained

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{86}by refusing to supply industrial sugar to Napier, a producer of refined sugar, \textit{inter alia} by reducing the price difference between retail and industrial sugar so that there was an insufficient margin for an efficient independent producer of retail sugar to operate in the market. See John Temple Lang, "Defining Legitimate Competition: Companies' Duties to Supply Competitors, And Access to Essential Facilities" in Barry E. Hawk (ed.) \textit{Fordham Corporate Law Institute- International Antitrust Law and Policy} (Invington-Hudson, NY: Transnational Juris Publications, Inc., 1995), p. 245, at p. 260. However, some of the other EC cases can be interpreted as applying even where price discrimination does not significantly affect competition but rather the profit margins of competing firms..
\item \textsuperscript{82} Section 29A(3) of the Israeli \textit{Restrictive Trade Practices Act} 1988 adopts a similar prohibition to that of Article 86(c) of the \textit{Treaty of Rome}. The Israeli case of Civil Action 808/93 \textit{Tower Air v. Sherutei Teufa et al.}, which is still pending before the court, serves as a good example of the application of the prohibition to a natural monopoly. (There, a natural monopoly firm which operated the only facilities supplying aircraft gasoline in Ben-Gurion Airport discriminated against foreign airlines by selling them fuel at higher prices than were charged from the Israeli airline company. The firm was charged, in a private suit, with abuse of monopoly power and, in particular, in discriminatory monopoly pricing.)
\item \textsuperscript{83} Section 9 of the Maltese \textit{Competition Act} 1995.
\item \textsuperscript{84} \textit{Swedish Competition Act} 1993, Section 19.
\item \textsuperscript{86} \textit{Garshman v. Universal Resources Holding}, 824 F. 2d 223 (2\textsuperscript{nd} Cir. 1987)(A controller of a natural gas pipeline and mineral leaseholds did not monopolize by refusing to deal with certain natural gas explorers or charging them more, for the defendant was not in competition with the explorers). For a different ruling see the minority opinion in \textit{Grand Caillou Packing Co.}, 65 F.T.C. 799 (In a patent case the FTC condemned an allegedly discriminatory royalty in the licensing of a patented shrimp peeler machine. Royalties, which were based on the number of peeling operations performed, allegedly discriminated cannery of small shrimps against cannery of large shrimps. The majority found illegal monopolization based on the patentee's interest in canned large shrimps, which indicated vertical integration. One commissioner dissented on the ground that a monopolist must treat competing customers with sufficient equality so as not to "destroy or cripple a major segment of an industry." \textit{Ibid}, at p. 869).
\item \textsuperscript{87} \textit{Brooke Group v. Brown-Williamson Tobacco}, 509 U.S. 209, 113 S. Ct. 2578, 125 L. Ed.2d 168.
\end{itemize}
\end{footnotesize}
of are below an appropriate measure of its rival’s costs and that the defendant had a
dangerous probability of recouping its investment in below-cost prices. These two
conditions are not met when the monopolist is simply exploiting its legally obtained
monopoly power in order to enjoy profits that result from its position.

The Robinson-Patman Act is special-interest legislation designed to protect small
firms from competition from larger, more efficient firms that would be able to purchase
supplies at lower costs in the absence of the Act. Section 2 of the Act makes it unlawful
to discriminate in price between different purchasers of commodities of like grade and
quality. An important element of the offense is that the “effect of such discrimination may
be substantially to lessen competition or tend to create a monopoly in any line of
commerce, or to injure, destroy, or prevent competition” in either the seller’s or its
customers’ market,” which has been interpreted as requiring a reasonable possibility that
it may have such effect. Where a natural monopoly is concerned, price discrimination
does not injure competition in the natural monopolist’s market, given that the market can
support, by definition, only one firm. Even competition for the natural monopoly market
is not injured if the competing monopolist may also price-discriminate. The court will
then look at the effects of price discrimination in the vertically related market, where the
natural monopolist’s customers operate. In the well known Morton Salt case the court
stated that injury to competition can be found where price differentials between
competing purchasers were sufficient in amount to influence their resale price of salt,
even if the particular goods constituted a minor portion of the retailer’s stock. Similarly,
the Seventh Circuit rejected a claim of competitive injury where it was found that there
was no causal relation between the input price and the final price of the product.

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88 Ibid.
89 Carlton and Perloff, supra, note 75, p. 840; Thomas M. Ross, “Winners and Losers Under the Robinson-
90 Corn Products Co. v. FTC 324 U.S. 726, 742
91 FTC v. Morton Salt Co., 334 U.S. 37, 68 S. Ct. 822 (1948). See also United Biscuit Co. v. FTC 350 F.2d
615 (7th Cir., 1965) cert denied 383 U.S. 926, 86 S. Ct 930 (1966)(“Even though price discriminations
covering a single item in a grocery store may appear relatively insignificant when considered alone they
may assume the stature of substantiality when considered in the context of the store’s total operation and as
an incipient harm which could grow into reality if extended to all of the items handled by the grocer...”)
92 Minneapolis-Honeywell Regulator Co. v. FTC 191 F. 2d 786 (7th Cir. 1952) appeal dismissed, 344 U.S.
206, 73 S. Ct. 245 (1952). For a requirement of a causal relation between the price discrimination and an
actual or reasonably probable injury to competition see American Oil Co., v. FTC 325 F. 2d 101 (7th Cir.
even be argued that if the monopolist engages in first-degree price discrimination, its actions do not affect competition as no competitor enjoys higher profits than others. Today there is widespread skepticism that price discrimination often leads to serious injuries to welfare (as opposed to individual competitors). Yet private actions based on the Act are still widespread.

At bottom, the focus in all the surveyed price discrimination provisions is on its effect on competitors. In no jurisdiction surveyed was welfare-enhancing price discrimination recognized as a defense. Nevertheless, the requirement, in all jurisdictions, that price discrimination harm competition limits the scope of the prohibition such as to allow a monopolist to discriminate among consumer groups not competing with each other. This generally increases total welfare and also reduces the incentives of firms to vertically integrate. Also, it limits the scope of the prohibition to situations in which competition is actually affected by price regulation. Still, any law that does not differentiate between different market conditions when prohibiting price discrimination and that applies a “one rule for all” will not necessarily be justified on economic efficiency grounds. It may be more efficient to adopt a rule that allows the court to differentiate between welfare enhancing and welfare reducing market situations, or a rule that does not prohibit price discrimination. In deciding among these options, one should not ignore the effect of a prohibition against price discrimination on the incentives of a natural monopolist to vertically integrate into a potentially competitive market.

B. Non-Price Discrimination
Two competing considerations should determine the competition policy rules regulating non-price discrimination of a non-vertically integrated natural monopolist. First, when a natural monopolist is not vertically integrated into a competitive activity and it is not contemplating entry into this market, it has no economic incentives to non-price discriminate between competitors, unless it reduces its own costs, although it might have

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non-economic incentives to do so. Arbitrary or discriminatory trade terms are not exclusionary in the sense of preventing competition with the monopolist, impairing rivals' opportunities, or in any other way tending to reinforce or increase monopoly power.\textsuperscript{94} Second, such discrimination could have significant effects on competition, no matter what the basis of the intentions of the discriminating monopolist.

Many jurisdictions, including the EC, Israel, Malta, and Australia have based their competition laws on the second consideration.\textsuperscript{95}

In other jurisdictions, such as the U.S. and Canada,\textsuperscript{96} non-price discrimination usually does not constitute a competition law violation. In the U.S. a monopolist—whether natural or not—does not violate the competition laws by setting non-price discriminatory terms or by refusing to deal with some consumers that compete with each other, even if by so doing it imposes a competitive disadvantage on some competitors,\textsuperscript{97} unless such conduct is part of a predatory tactic aimed at enhancing or creating monopoly power.\textsuperscript{98} The focus is thus on the increase of market power of the monopolist rather than on the impact on competitors.\textsuperscript{99} In \textit{Interface}, for example, the plaintiff charter airline was denied

\textsuperscript{95} See Article 86(c) of the \textit{Treaty of Rome} 1957; Section 29A(3) of the Israeli \textit{Restrictive Trade Practices Act} 1988.
\textsuperscript{96} Section 50 (1)(a) of the Canadian \textit{Competition Act} 1988 which prohibits discrimination applies only to price-related advantages. Non-price-related advantages such as superior technical assistance and credit terms are not covered by the provision. Director of Investigation and Research, \textit{Price Discrimination Enforcement Guidelines}, (Ottawa, Consumer and Corporate Affairs, Canada, 1992).
\textsuperscript{97} See, for example, \textit{Garshman v. Universal Resources Holding} 824 F. 2d 223 (3d Cir. 1987)(A controller of a natural gas pipeline and mineral leaseholds did not monopolize by refusing to deal with certain natural gas explorers, for the defendant was not in competition with the explorers); \textit{Ferguson v. Greater Pocatello Chamber of Commerce}, 848 F. 2d 976 (9th Cir., 1988)(University renting its stadium to one producer of trade shows not required to rent to others, for it was not in competition with the trade show producers); \textit{Homefinders of America Inc. v. Providence Journal Co.} 621 F. 2d 1059, 1069 (3d Cir. 1979)("We seriously doubt that an arbitrary or discriminatory unilateral refusal to deal by a lawful monopolist is actionable under sec. 2 of the \textit{Sherman Act}").
\textsuperscript{98} Eleanor M. Fox, "Monopolization and Dominance in the United States and the European Community: Efficiency, Opportunity, and Fairness" (1986) 61 \textit{Notre Dame L. Rev.} 981, at p. 1000. The U.S \textit{Lorain Journal} case can serve as an example of such predatory tactic. Knowing that its customers needed to deal with it, Lorain hoped to create a boycott that would cause the demise of its competitor. By the refusal the dominant firm foregoes profit opportunities and imposes costs upon itself in order to impose greater costs on its competitor. It is important to note that although \textit{Lorain Journal} was a natural monopoly in the newspaper business, it had no natural monopoly position in the advertising business. \textit{Lorain Journal, supra}, note 9.
\textsuperscript{99} Only a limited number of courts have found liability for arbitrary refusals, reasoning that all refusals create similar results, regardless of the market structure or the monopolist's intent. See, for example, \textit{Hart Productions v. Greater Cincinnati Convention}, 1990-2 Trade Cas. 69,233 (S.D. Ohio)(Convention center's policy of refusing guaranteed advance reservations unless the lessee also agreed to guarantee occupancy of
access to the terminal and maintenance of its choice by the monopolist, a public agency, that was operating the airport and did not compete with the airline. The First Circuit rejected a charge of monopolization since “it is difficult to see how denying a facility to one who, like Interface, is not an actual or potential competitor could enhance or reinforce the monopolist’s market power.” Nonintegrated monopolists thus typically enjoy a presumption that their discriminatory terms are valid unless proven to be a method to abuse their monopoly power.

The rationale behind this rule is that the expected cost of limiting the monopolist’s freedom of trade is deemed greater than the expected costs of competitive harm. As economic theory shows, a monopolist has no economic incentives to arbitrarily discriminate between competitors. So that although it seems that the test focuses on intent, the focus really is on expected conduct. In *Official Airline Guides* a monopolist’s arbitrary manner of listing different air carrier routes that had adversely affected competition among them did not constitute a violation where the monopolist was not vertically integrated to air carriers. The court stated that any gain in controlling the guidelines is outweighed by the detrimental effect of allowing the court to pass judgement on many business decisions of the monopolist that arguably discriminate among customers in some way. Imposing a duty to deal in such circumstances would “[g]ive the FTC too much power to substitute their own business judgement for that of the monopolist in any decision that arguably affects competition in another industry. Such a decision would permit the FTC to delve into...’social, political or personal reasons’ for a monopolist’s discriminatory practice.

Does the fact that a natural monopolist’s monopoly power has reached its upper limit (100% control of the market) imply that the test should not focus on the increase in

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a minimum number of local hotel rooms could have violated essential facility doctrine even though plaintiff, a trade show producer and the defendant, a convention facility, were not competitors; *Byars v. Bluff City News Co., Inc.* 609 F. 2d 843 (1979)(“What should matter is not the monopolist’s state of mind, but the overall impact of the monopolist’s practices’); *Venture Technology Inc. v. National Fuel Gas Co., 1980-1 Trade Cas. (CCH) p63, 780 (W.D.N.Y. Jan 9, 1981) rev’d 685 F. 2d 41 (2nd Cir. 1982) cert. denied 459 U.S. 1007 (1982); City of Mishawaka v. American Elec. Power Co., 616 F. 2d 976 (7th Cir. 1980) cert. denied 449 U.S. 1096 (1981).

100 *Interface Group v. Massachusetts Port Authority* 816 F. 2d 9 (1st Cir., 1987) at p. 12.


the monopolist’s power but instead on the effect on competition in the downstream or upstream market or on welfare?

Strong policy and doctrinal reasons may still support a rule that presumes that the monopolist’s conduct is competitive. First, when a monopolist does not itself operate in upstream or downstream markets, it has no incentives to restrain competition in those markets, for maximizing competition in vertically related markets maximizes its own profits. It has economic incentives for its customers to have the lowest costs possible and to reap the highest profits possible, so it can share these profits. Especially where the monopolist is not prevented from price-discriminating amongst its customers, it will non-price discriminate for economic reasons only where such conduct reduces its own costs. Furthermore, profit-reducing discrimination tends to be self-correcting. Therefore, the monopolist will usually have a legitimate business reason for discriminating among its customers. There is no competition policy rationale for enforcing a duty to deal that does not involve some kind of integration.103

Another reason for reluctance to limit the monopolist’s freedom to choose its business partners and its terms of trade involves difficult issues of administerability. Neither the courts nor the competition authorities are well equipped to regulate trade terms where they should take into account real differences between customers.

It can also be argued that inefficient schemes by a natural monopolist will induce competition for the market by a more efficient monopolist. Especially where the competitor(s) suffering from a comparative disadvantage due to the monopolist’s conduct have (unilaterally or collectively) significant market power, it may be economically profitable for them to compete for the market, to endorse another firm to compete for the market, or even to create a duplicative service or product.

The rarity of the occurrence of a non-economically justified discrimination, the problematic nature of potential remedies, and the dynamic incentives such discrimination creates, support a strong presumption of non-interference. This rule also creates certainty and predictability in the standard for liability.

At the same time, we suggest that the above rule be qualified where the plaintiff can clearly show that welfare would be significantly improved absent the natural

103 Areeda and Hovenkamp, supra, note 44.
monopolist’s discriminatory conduct and that such forced dealing would not chill desirable activity. In some rare situations a non-vertically integrated monopolist which is a controller of an essential facility may have incentives to limit its supply of the input to only one firm, albeit the most efficient firm, even though the downstream market is potentially competitive, since it can then extract the downstream producer’s monopoly profits. The Canadian Nielsen case an serve as a good illustration of such a situations. Nielsen offers a wide variety of marketing research services, including scanner data market tracking services. In order to provide this service, Nielsen and its potential competitors had to obtain the scanner data from all or at least most of the major suppliers. In other words, the scanner data slips were complementary essential inputs in Nielsen’s or any of its competitors’ products. It follows that each retailer was the sole supplier of its scanner data. This unique market structure created a situation in which the retailers shared Nielsen’s interest to have only one firm (the dominant firm) operating in the market. The real issue between Nielsen and its suppliers involved the share of the suppliers (as a group and each of them separately) in the monopoly profits Nielsen extracted from the manufacturers.\textsuperscript{104}

The explanation is quite simple. The suppliers possessed monopoly power over their scanner data, which were essential complementary inputs in the market. Since the suppliers could and actually had abused this power in order to extract supra-competitive profits from the market, they had strong incentives to ensure that the tracking services market extracted the highest profits possible from its customers. Since monopoly rates are higher than competitive rates where potential competitors produce substitute products, the suppliers could have extracted higher rates for their scanner data from one firm than from a number of firms operating in the market, as the single supplier can always afford to bid more for the data than can a firm that knows that it will be one of two suppliers of competing services. Thus, a sophisticated supplier took into account the likelihood of higher post-exclusion price in calculating its opportunity cost for selling the exclusionary right, and possessed strong incentives to contract only with the most

profitable market competitor. If Nielsen had lost its exclusivity in the market, the
suppliers would not have been able to obtain such prices for their scanner data unless
Nielsen was replaced by an alternative monopolistic supplier which could have afforded
to pay such prices. Consequently, the suppliers had strong economic incentives not to
change the current market structure. They were not waiting to be free of Nielsen’s reigns
but instead shared its incentives to have only one firm operate in the market.

The above analysis holds only if three conditions are satisfied. First, the products
of the market competitors are substitutes, so that each manufacturer buys only one of the
products in the market. Otherwise, if the products are complements, the revenues of the
market might rise rather than fall if competition within the market is introduced. Second,
the duration of the technology or the methodology used in the market is longer than the
duration of the contracts signed by suppliers. In other words, the “game” is a continuous
one. In a one-shot game (new technology emerges) the suppliers have incentives to sell
the input to as many competitors as possible. However, in a continuous game, their
incentive is to maintain the monopolistic market structure and create competition for the
market instead of competition in the market. If the suppliers sell the input to one or more
firms in the market their short-run profits in the first stage of the “game” may be higher,
but their long-run profits would be much lower, since the competitors would charge
lower prices from their customers. Third, the downstream monopolist has no
monopsony power, as competition for his market exists and the essential acuity
controller(s) hold the reigns of determining which firm will be the sole supplier in the
downstream market.

In such situations, the assumption that market structure creates incentives for
firms to have several firms compete in the downstream market does not hold. The
supplier(s) have incentives to create a downstream monopoly, even if the downstream
market can support more than one competitor. Nonetheless, they have incentives to
supply only to the most efficient competitor for the market. As a result, although the
supplier(s) do not discriminate among competitors—they simply contract only with the
highest bidder—they will not allow more than one competitor to enter into the market.

105 Krattenmaker and Salop, supra, note 36, at p. 112.
5.3.5 Regulation of trade terms of Vertically Integrated Natural Monopolies

Once a natural monopolist is vertically integrated into a competitive market, the economic analysis of the monopolist’s incentives changes materially and, accordingly, a different set of rules should apply. Such rules are directed against conduct which has a measurable impact on competitive conditions in a vertically interconnected competitive market by creating or maintaining existing monopoly power, or otherwise threatening the deterioration of competition in such a market. The perceived evil involves gaining a competitive advantage in the competitive market not based on real cost savings. In natural monopoly markets such advantages might force competing firms out of business rather than into competition. This section analyzes rules that regulate such situations.

A. Cross-Subsidization and Cost Misallocations

If a natural monopolist cross-subsidizes its competitive arm in order to force its competitor(s) out of the market, or if price cuts are intended to warn a competitor so as to discourage aggressive competition, such conduct may be condemned as anti-competitive predatory conduct. A more complicated issue arises where the monopolist misallocates some of the costs of its competitive activities to its natural monopoly segments in order to circumvent price regulation. Both activities interfere with competition in a potentially competitive market.

The most relevant economic offence involves predatory pricing. While there is no universally accepted definition of predatory pricing, the definition provided by Posner is quite broad: “pricing at a level calculated to exclude from the market an equally or more efficient competitor.” Pricing at a level to exclude from the market less efficient competitors is, of course, what competition is supposed to achieve; predatory pricing...

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106 Assuming the firms requiring supply compete or will potentially compete with its upstream or downstream competitive arm. Otherwise, the refusal to deal should be analyzed under section 5.3.4 infra. For example, a refusal of a mining company that has built a harbor for its own use to ship ore to grant access to a car ferry service operator should be analyzed under the rules applying to non-vertically integrated firms. Lang, supra, note 82, p. 285.

107 Section 50(1)(c) of the Canadian Competition Act; Section 2 of the Sherman Act; Article 86 of the EC Treaty of Rome; Section 46 of the Australian Trade Practices Act.

achieves the opposite. The theory of predatory pricing is based on the assumption that a predator will invest in losses for a period with the prospect of high returns upon becoming a monopolist. Given the problematic nature of defining predation, most jurisdictions have adopted a rather flexible test which leaves much discretion to the court.

Most jurisdictions require several additional conditions in order to label a conduct as predatory. The conditions stated, for example, by the Canadian Director include the following: (a) the predator possesses significant market power in the predated market; (b) the existence of barriers to entry into the predated market—"whether...price increases would, within two years, invite entry into the industry on a sufficient scale to ensure that price increases could not be sustained."; (c) a "policy of selling" predatorily rather than competitive expedients of brief duration; (d) competitive impact—"having the effect or tendency of substantially lessening competition or eliminating a competitor, or designed to have that effect." Other key elements of the offence, established by the courts, involve a predatory intent and the potential for recoupment of losses from a predatory strategy.

Cross-subsidization might fall within the scope of predation. However, proof remains difficult. There is a strong case for requiring transparent information on an historic and current-cost basis from a natural monopoly, which should reveal short and long run product marginal costs. Even then it will be a demanding task to allocate the costs of the firm to its natural monopoly and competitive activities, due to the existence of vertical economies of scope. Where separating joint costs is difficult, the monopoly might

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109 Areeda and Turner see the problem as one of comparative statics and condemn prices when they fall below short-run marginal cost. Phillip Areeda and Donald F. Turner, "Predatory Pricing and Related Practices under Section 2 of the Sherman Act," (1974-5) 88 Harvard Law Review 697. Posner, alternatively, has argued for the relevance of long-run marginal costs (which includes the cost of maintaining the business through ongoing capital investments). Richard A. Posner, The Robinson-Patman Act: Federal Regulation of Price Differences (Washington, D.C.: American Enterprise Institute, 1976). However, in a recessional environments both economic theory and common sense suggest that it may be rational for a firm to price down to short-run marginal cost, whether or not there is new entry. And if excess capacity exists because of past investment mistakes the same policy remains rational. Foster, supra, note 3, p. 163-7

110 For example, the Canadian legislature prohibited prices that are "unreasonably low."; Section 86 of the EC Treaty of Rome was interpreted by case law as prohibiting predatory pricing below average variable costs. 83/462 EEC/AKZO OJ [1985] L374/1; U.S. courts have adopted different tests for predation under Section 2 of the Sherman Act.

111 Director of Investigation and Research, Competition Policy Bureau, "Predatory Pricing Enforcement Guidelines" (1992), at p. 10.
try to prove that it priced its product at or above average total cost. The competition authorities do not have the tools nor the expertise to allocate such costs. Also, the remedies available to a court are problematic. The court is not well equipped to monitor terms and conditions that would prevent such behaviour in the future or set terms that would remedy the outcome of past predatory conduct.

Several additional difficulties may arise in applying predatory pricing provisions in order to prevent cost misallocation problems. Although the outcome of both the usual predatory pricing scenario and cross subsidies may be similar—driving out of the market competitors which have competitive advantages over the predating firm by producing false economic signals and reducing economic welfare in the long run—they are achieved in different ways. “Ordinary” predatory pricing usually involves conduct of one firm or one operational division of a firm, whereas cost misallocation requires a coordinated operation of both the natural monopoly and the competitive divisions of the firm; “ordinary” predatory pricing involves temporary pricing below cost whereas the natural monopolist might engage in cross subsidy for unlimited periods, since it does not entail a loss to the over-all profitability of the firm; unlike “ordinary” predatory pricing, cross-subsidy could be profitable to the monopolist even if it does not possess market power in the competitive market or if barriers to entry into the competitive segment are low. Assume, for example, that the “real” costs of its competitive arm are 100, while the monopolist succeeds in covering 50% of such costs by “smuggling” them into the cost structure of its regulated natural monopoly activities. It would be profitable for it to sell its product at any price above 50, whether or not there exist barriers to entry into the predated market or whether or not it possesses market power in the competitive segment.

Given the above differences, it will be difficult, if not impossible, to establish some of the elements of the predatory offence; mainly, that the competing arm of the natural monopoly sets its prices at a predatory level. The fact that the monopolist “smuggles” some of the costs of its competitive arm or affiliate into its regulated rates enables it to price its end product at a price that although below the “real” cost of production does not generate any loss for the firm as a whole. The crucial question then becomes whether a court will apply the economic criteria for predatory price levels to the costs of the competitive arm alone, or will adopt a broader point of view which takes into
account all the costs of the firm. The court may take account of all the circumstances surrounding the alleged predatory action which might be broad enough to allow the firm to justify its actions on the grounds that it covers all its costs and does not suffer any losses. Yet such justification will expose it to the scrutiny of the price regulator whose failure to regulate the natural monopolist by preventing it from "smuggling" costs that were incurred by its competitive arm into its cost structure has enabled cost misallocation to take place in the first place.

In conclusion, the power to investigate and remedy predation is unlikely to be sufficient to regulate efficiently cost misallocation problems. Instead, the price regulator should limit or contain the market power in the natural monopoly segment of the industry from where it originated and prevent its leveraging. A genuine concern, however, is that the price regulator may not be entirely effective in preventing the firm from using its control over natural monopoly segments to its competitive advantage due to the asymmetry of information between the regulated firm and its regulator. One possible response would be for the regulator to impose "competitive safeguards" in related competitive segments, such as limitations on the pricing behaviour of the natural monopolist's competitive affiliate, to ensure that the integrated firm does not leverage its market power. However, the lack of expertise of the regulator in the competitive process might worsen the situation instead of ameliorating it, as this secondary regulation of the competitive markets will interfere with the competitive process. The regulator has no objective means of determining whether the firm's success in any particular situation is due to illicitly transferred market power, or to market power stemming from some other source, or simply to superior economic performance. The efficient response, where structural separation is not possible, is thus to tighten the regulatory measures to prevent leveraging of market power.

Clearly, total separation between the competitive and natural monopoly markets is the most effective solution in order to prevent leveraging of market power into competitive segments. Under full divestiture the natural monopoly has much weaker incentives or opportunities to leverage its monopoly power. Nonetheless, separation is efficient only if the transaction costs resulting from deintegration of industry activities are
lower than the costs imposed by the regulatory burden of ensuring that the sharing of facilities does not impede efficient competition.

B. Tying, Exclusive Dealing and other Predatory Conduct

Tying, exclusive dealing and other types of predatory conduct can usually be reached by the abuse of dominance provisions in competition laws, surveyed in Chapter 4.3 above. For example, most jurisdictions require market power, an agreement to deal, supply or buy only from the dominant firm, and lessening or prevention of competition in order to establish an exclusive dealing violation. These conditions are easily met where the vertically integrated natural monopolist provides the competitive firm with an exclusive right of supply.

C. Refusal to Supply and Discriminatory Supply Terms

This section first analyzes legal regimes governing refusal to supply and discriminatory trade terms of vertically integrated monopolists. A discussion follows in which several methods for increasing these rule’s efficiency are proposed, some of which relate to the basic terms of the doctrine and some that relate to the possible remedies.

I. The Legal Regimes

i. The U.S. “Essential Facilities” Doctrine

The best known doctrine which deals with access to vertically integrated natural monopolies is the U.S. essential facilities doctrine, also known as the bottleneck monopoly doctrine. The importance of the doctrine stems not only from its use in the U.S. but also from its adoption or use as a reference point in many other jurisdictions, including Australia, New Zealand and the EC.

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112 However, as Areeda points out, “[i]t is less a doctrine than an epithet, indicating some exceptions to the right to keep one’s creations to oneself”. Areeda, supra, note 49.

113 The essential facility doctrine has inspired a mass of legal scholarly writings on its nature and utility. See, for example, Sullivan “Section 2 of the Sherman Act and Vertical Strategies by Dominant Firms”
The doctrine, which comes as close as U.S. competition law does to regulating mere monopoly, creates a major exception to the liberal principle of unconstrained competition between competitors and the general principle that monopolies can choose their customers and the terms on which they deal with their customers. U.S. courts have interpreted sections 1 and 2 of the Sherman Act to impose upon controller(s) of an essential facility a duty to grant its competitors reasonable and non-discriminatory access to a product or a service which the competitor must obtain in order to compete with the controller(s), in a vertically related market. The doctrine is part of the general monopolization or attempt to monopolize prohibitions in Section 2 of the Sherman Act.

The first U.S. Supreme Court case that dealt with access to an essential facility was the Terminal Railroad case. There, the Supreme Court decided that a joint venture controlling all economical routes of access to a and from city must permit railroads wishing to use its facilities to do so on non-discriminatory terms. Following Terminal Railroad, a significant number of antitrust cases have been decided in which an outright or qualified refusal to deal figured prominently in the plaintiff’s theory of liability. Where antitrust is the tool for facilitating competition in vertically interconnected markets, the essential facilities doctrine typically provides the principal legal justification for compulsory access.


14 Queensland Wire v. BHP (1988) ATPR 40-841
15 See, for example, Auckland Airport, supra, note 6 (Applying the essential facilities doctrine) and Port Nelson, supra, note 63 (The NZ High Court analyzed the U.S. essential facilities doctrine but declined to embrace it as is. It noted that it reached the same conclusion as that which it would have reached had it applied the doctrine).
16 See sub-section (ii) infra.
17 This principle is often referred to as the Colgate principle, named after the Colgate decision in which the court stated that “in the absence of any purpose to create or maintain a monopoly” even a monopolist can “exercise his own independent discretion as to the parties with whom he will deal” and may retain for its exclusive use all the advantages which it has legitimately acquired. U.S. v. Colgate & Co. 250 U.S. 300, 307 (1919).

18 Terminal Railroad, supra, note 76.
19 See, for example, U.S. v. Associated Press 326 US 10 (1945) (Discriminatorily high entry fees to obtain access to world reporting facilities—essential factor in the conduct of a newspaper found to violate the Sherman Act) Silver v. New York Stock exchange, supra, note 8; Gamco, supra, note 11; City of Clearwater v. Williams Natural Gas Co. 743 F. Supp. 1427, 1440 (D. Kan. 1990).
The Elements of the Doctrine

The doctrine’s modern content can be distilled largely from two cases—*MCI Communications Corp. v. AT&T*\(^{120}\) and *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*\(^{121}\) In *MCI* the plaintiff claimed that AT&T has improperly refused to allow it to connect its telephone lines with AT&T’s nationwide telephone network and that such interconnection was essential for MCI to compete against AT&T in the long-distance market. The Court identified four essential elements necessary to establish liability under the doctrine: (1) control of an essential facility by a monopolist; (2) a competitor’s inability practically or reasonably to duplicate the essential facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing the facility. *Aspen* is commonly interpreted as adding a fifth requirement to the MCI formula—namely, the absence of a legitimate business justification for the refusal to deal either at the “micro level” or the “macro level”.\(^{122}\) Legitimate business justifications at the micro level focus on the circumstances of the particular case (such as past experience; technical problems of interconnection). The macro level focuses on legitimate justifications of a general policy of *de facto* exclusivity. The doctrine, applied to a single firm, must also heed the intent requirement necessary to constitute monopolization under section 2 of the *Sherman Act*. Where the conditions of the doctrine have been met, the firm which controls an essential facility may not refuse to make the facility available to its competitors on nondiscriminatory and reasonable access terms.\(^{123}\)

A facility has been found to be essential if competitors cannot effectively compete in a market without access to it. A facility is not “essential” if it can, in fact, be technically and economically duplicated or otherwise obtainable and if access is not vital and critical

\(^{120}\) *MCI Communications v. AT&T*, 708 F. 2d 1081 (7th Cir.) (1983).

\(^{121}\) *Aspen Highlands Skiing Corp. v. Aspen Skiing Co.*, 738 F. 2d 1501 (10th Cir., 1984), aff’d on other grounds, 472 U.S. 585 (1985)(hereinafter: “Aspen”). It is questionable whether Aspen was, in fact, an essential facility, given that the mountain ski market was comprised of many other competing ski facilities. See, for example, F. Easterbrook, “On Identifying Exclusionary Conduct” (1986) 61 Notre Dame L. Rev. 972.

\(^{122}\) *Ibid.*

\(^{123}\) Some commentators read in an additional requirement that the monopolist have a dominant position in the downstream market. Such requirement, it is claimed, distinguishes essential facility cases from monopoly leveraging cases. See, for example, James S. Venit and John J. Kallaugher, “Essential Facilities: A Comparative Law Approach” in Hawk, *supra*, note 82, p. 315 at p. 319-20. Yet a careful reading of most of the case law as well as the rationale behind the essential facilities doctrine, analyzed below, do not indicate the need for such a requirement.
to competitive viability. Essentiality is not proven when actual or potential rivals other than the plaintiff are able to compete without the claimed facility, or when alternative inputs might serve just as well as the claimed facility. A municipal sports stadium, an electricity distribution system and a uniquely situated commercial building have all been found to be essential facilities. The strongest claims of essentiality are based on resources that constitute a natural monopoly or those whose duplication is forbidden by law.

What is the distinction, if any, between an essential facility and a natural monopoly? Natural monopolies, being an economic phenomenon, cannot be economically duplicated, since market demand can support only one optimally sized firm. An essential facility is broader in that it encompasses markets in which only one player can operate due to reasons which are not necessarily purely economic. An essential facility, if correctly defined and applied, applies to facilities that cannot be duplicated for technical, economical or political reasons (for reasons as diverse as environmental, aesthetic, political, etc.). An essential facility may also exist where one competitor has assumed control over all the alternative sources of at least one critical element necessary in order to compete. In other words, although the market could in some cases of an essential facility economically support more than one firm, government-erected barriers or singular control conditions create a single monopoly position that cannot be duplicated. This difference is significant since government-created essential facilities can be eroded simply by altering legal rules or regulations which created them in the first place and control of potentially competing facilities by one firm can be eliminated by separation of ownership. Yet natural monopolies and essential facilities have a similar effect on prices and trade terms faced by rival competitors in vertically integrated markets. Although the focus in the natural monopoly definition is on the costs of the monopolist and in the essential facilities doctrine is on the costs or the ability of

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125 *Fishman v. Wirtz*, 807 F. 2d 520, 539 (7th Cir., 1986)(Essentiality of the only municipal sports stadium to a professional basketball franchise).

126 *City of Groton v. Connecticut Light & Power Co* 662 F. 2d at 932

127 *Gamco*, *supra*, note 11.

128 See discussion *infra*. 
external firms trying to duplicate the facility, this test is essentially similar from the point of view of the competitor.\textsuperscript{129}

A second difference between the two concepts involves the essentiality of the monopolist's input in another market. The essential facility doctrine, developed in order to address discriminatory treatment of competitors in a vertically integrated market, usually requires as one of its conditions that the monopolist also be a potential competitor in a vertically integrated market.\textsuperscript{130} The natural monopoly, on the other hand, which is a purely economic term, focuses solely on the cost structure of production over the entire range of market output. It does not require that the natural monopolists' widgets or service to be an input in another market. A third distinction lies in the physical requirement of facilities in the essential facilities doctrine which is absent in the natural monopoly. Despite these differences, the essential facility concept serves as a close approximation to a natural monopoly, given that in both the main factor is the inability of competitors to economically duplicate the facility.

The nature of the requirement that the facility be essential includes a finding that the controller of the facility have market power. Were this not the case compulsory access would theoretically be granted to firms to which the input of another firm might be essential, although market forces may regulate the ability of the facility's controller to act monopolistically.\textsuperscript{131}

Turning to the key issue of what constitutes a denial of access, the case law implies that essential facilities must be made available on "fair and reasonable" or "nondiscriminatory" terms. The term "access" means more than merely the right of access or admission to a facility. Indeed it means actual use and depletion of the facility (i.e. allocating the scarce resource among users), subject to scarcity constraints.\textsuperscript{132} The doctrine, in its current form, focuses on non-discriminatory terms. The intervention of the

\textsuperscript{129} At the limit there may be cases in which the natural monopoly can produce a certain widget for the lowest price, but access to it would still not be essential for a competitor. See discussion infra.

\textsuperscript{130} See discussion of this element of the doctrine infra.

\textsuperscript{131} Alaska Airlines v. United Airlines, 948 F. 2d 536 (9th Cir., 1991) cert. denied, 112 S. Ct. 1603 (1992) ("A facility that is controlled by a single firm will be "essential" only if control of the facility carries with it the power to eliminate competition in the downstream market" at p. 544); Times-Picayune Publishing Co. v. U.S. 345 U.S. 594 (1956) 611-3 (Refusals to deal are not unlawful unless the facility owner possesses monopoly power or has refused to deal in order to obtain such monopoly power); Malcolm v. Marathon Oil Co. 642 F. 2d 845 860 (5th Cir. 1981). See discussion infra.

\textsuperscript{132} See discussion of the sharing principle in section III(ii) below.
court in the facility controller's decisions is minimal and is usually limited to setting
equal terms for all actual or potential competitors. Even if terms are unreasonable but
they are applied non-discriminatorily, the court would, most likely, not interfere with the
monopolist's decision. The reason is that it is believed that the monopolist's profit-
maximizing incentives will regulate its decisions and ensure that the market is served on
reasonable-although profit maximizing-terms, coupled with the difficulties involved in
price regulation. The reasonableness requirement should thus be read as prohibiting
access terms that are discriminatory, de jure or de facto, although they seem, on their
face, to apply in the same manner to all competitors. For example, if a natural monopolist
requires that competitors use one kind of equipment that is used only by some of the
market participants and such a requirement is not technically justified by technological
constraints, then the court may eliminate such requirement and require the natural
monopolist to serve all of the competitors without regard to their equipment.

Courts have upheld business justifications to support decisions to deny access, or
to set access conditions that the plaintiff subsequently has challenged as unreasonable.
Valid business justifications negate a presumption of an intent to restrict competition.
Access will not be granted if it will result in the diminution of service and the relevant
denial can be justified for technical or capacity reasons. In Town of Massena, for
example, the district court concluded that the defendant had properly refused access to
"essential" transmission lines when the defendant failed to resolve legitimate engineering
concerns.133 In City of Groton a refusal to consent to general requests to wheel that failed
to specify the timing of a transaction or the quantity of power to be wheeled was
sustained.134 The Massena and Groton courts also emphasized that the defendant utilities
had not categorically refused to deal but had raised efficiency concerns in the course of
good faith efforts to negotiate wheeling agreements with the plaintiffs. In general, it
seems that the business justification for refusing access to an essential facility is limited
to cases where access would disrupt the monopolist's own business or it would incur
substantial investments in order to accommodate its competitor. In recent case law the
courts have also upheld business justifications rooted in public policy concerns other than

134 City of Groton, supra, note 127.
efficiency, such as equity concerns, such as the protection of captive consumers from the redistributional aims of a rent-seeking plaintiff.\textsuperscript{135}

The essential facilities rule is essentially a take it or leave it rule in that the court does not balance the economic considerations present but rather if one of the elements of the offense is not met, the case is dismissed. Most importantly, an absolute defense is created where valid business justifications for denials of access exist.

\textbf{The Doctrine's Rationale}

An important debate surrounds the issue whether the controller of the essential facility must compete in a vertically related market in order for the essential facilities doctrine to apply. The prevailing view is that vertical integration is an essential element of the doctrine.\textsuperscript{136} Read in such a manner, the doctrine requires a monopolist to share its facilities with one or more rivals, where the monopolist extends its activities to potentially competitive markets, based on a presumption that absent valid business justifications, access is denied in order to restrict competition.\textsuperscript{137} The rationale behind this requirement is that access to the facility should be mandated only where the monopolist's conduct has measurable effect on competitive conditions by further entrenching or extending its monopoly into competitive markets and by suppressing horizontal competition that might be of benefit to consumers.\textsuperscript{138}

\textsuperscript{135} See, for example, City of Abeneheim v. California Edison Co. 955 F. 2d 1373 (9th Cir. 1992) and City of Vernon v. California Edison Co. 955 F. 2d 1361 (9th Cir. 1992)(Where the principal effect of complying with the plaintiff's demand would be to shift costs from one subset of the utility's consumers to another group of consumers and regulatory requirements reflect solicitude for wealth distribution effects, the defendant utility can invoke the fulfillment of regulatory requirements to justify a refusal to grant transmission access).

\textsuperscript{136} See, for example, Judge Posner in Olympia Equipment Leasing Co. v. Western Union Telegraph Co. 797 F. 2d 370 (7th Cir 1986) at p. 375: "If a competitor is also a customer his relationship to the monopolist is not only a competitive one. The monopoly supplier who retaliates against customers who have the temerity to compete with him, by cutting such customers off, is serving a collaterai relationship in order to discourage competition."

\textsuperscript{137} Gamco, supra, note 11 ("The conjunction of power and motive to exclude with an exclusion not immediately and patently justified by reasonable business requirements establishes a \textit{prima facie} case of the purpose to monopolize"). Contrast this with the presumption that a non-vertically integrated monopolist owner does not have an economic motive to restrict competition. In such cases liability is predicated on a showing of monopolization and requires a showing of specific intent.

\textsuperscript{138} See, for example, Areeda and Hovenkamp, supra, note 44, p. 771; MCI Communications Corp. v. AT&T, 708 F. 2d 1081 (7th Cir.)(1983). This rationale may be traced to the Supreme Court's dictum in Griffith that "the use of monopoly power, however lawfully acquired, to foreclose competition to gain a competitive advantage, or to destroy a competitor, is unlawful". United States v. Griffith, (1948) 334 U.S.
The essential facilities doctrine has also been applied, if only on rare occasions, to an essential facility and competitors functioning at different levels of commerce. As noted above, such refusals to deal, if not predatory or not induced by cooperation with other market participants in order to eliminate a competitor from the market, do not extend, preserve, create, or threaten to create significant monopoly power in the primary market in which the monopoly firm sells or in a vertically related or even collateral market. It is suggested that all the cases that applied the doctrine without requiring vertical integration can be distinguished as involving the abuse of monopsony power in order to induce a natural monopolist to grant exclusive rights to its facility. It is questionable whether the essential facility doctrine is the appropriate vehicle to use in such cases. Given that the monopolist is driven to its discriminatory conduct not by its own incentives to monopolize but rather by the incentives of a powerful buyer who uses its power over the monopolist to mandate discriminatory terms, the substantive anti-competitive offense as well as the remedy should relate to the monopsony buyer. This factual scenario raises an intriguing question. Given that the natural monopolist is the only firm operating in its market, how can a buyer, even if it has market power, abuse its power in order to induce a monopolist to engage in activities that are otherwise not to its advantage? The answer lies in specific constellations of facts, such as where the buyer can make a credible threat to compete for the market or to buy its inputs from another firm.

100. In Berkey the Second Circuit focused on the second prong of this dictum, finding that “a firm violates section 2 by using its monopoly power in one market to gain a competitive advantage in another, albeit without attempt to monopolize the second market”. Berkey Photo vs. Eastman Kodak Co., 603 F. 2d 263 (2d Cir. 1979), cert. Denied 444 U.S. 1093 (1980).
139 (in Aspen, the Tenth Circuit stated that “we are not convinced that the essential touchstone of bottleneck cases is vertical integration.” Aspen, supra, note 121. United States Football League 842 F. 2d 1335 (2d Cir., 1988)(The plaintiff claimed that the NFL took unlawful measures to prevent a competing league from obtaining satisfactory contracts with any of the three national television networks. The District Court submitted the case to the jury on essential facilities instruction although the NFL was not vertically integrated into broadcasting. On appeal the Second Circuit rejected the claim since an essential facilities claim must be brought against the party that can provide access to the facility. But it did not question the applicability of the doctrine to a case involving a nonintegrated monopolist). Hecht v. Pro Football, Inc. 570 F. 2d 982 (D.C. Cir. 1977) cert. Denied 436 U.S. 956 (1978)(Applied an essential facilities doctrine to a claim by an American Football League that a National Football League team had illegally monopolized by arranging to use a natural monopoly stadium on an exclusive basis. Although the stadium was not controlled by the NFL, the court nevertheless held that the plaintiff was entitled to a jury instruction on the essential facilities doctrine.) See Kenneth L. Glazer and Abbott B. Lipsky, Jr. “Unilateral Refusals to Deal Under Section 2 of the Sherman Act, (1995) 63 Antitrust Law Journal 749, at p. 757-9.
which will win over the natural monopoly market.\textsuperscript{140} It may also threaten to use a different input. Such a threat may be credible where although the alternative input or production techniques that utilize such input are more expensive than utilizing the monopolist’s input, they may still be profitable if they allow the firm to maintain a monopoly position in its market.

Another frequently voiced justification of the essential facilities doctrine involves notions of public utility. The special competitor/customer relationship, where the customer is unable to obtain supplies other than from one of its competitors is placed above the efficiency calculus. A private monopolist in control of a scarce resource, it is argued, should bear some of the obligations of “fair and equal treatment” borne by publicly regulated utilities.\textsuperscript{141} Still, it should be borne in mind that public utility regulation is also based, to a large degree, on economic welfare considerations. Regulation is often justified by the fact that certain kinds of activities, if left unregulated, would harm welfare due to the incentives of the natural monopolist to (ab)use its monopoly power, similar to the leveraging rationale of the essential facilities doctrine.

\textbf{ii. European Union Refusal to Deal and Discriminatory Dealings Prohibitions}

The general principle in EC law is that there is no general duty of a monopolist to help its consumers or competitors. A firm is normally allowed to retain for its own exclusive use all advantages which it has legitimately acquired. Yet a monopoly is under special obligations not to engage in conduct which is considered to constitute an abuse of dominance under article 86. Typical abuses are listed in the article itself and include discriminatory trade terms and a refusal to deal by a dominant firm for no objective reason. The discriminatory trade terms prohibition encompasses all the situations in which a monopolist discriminates among its customers (whether its competitors or not) requesting similar products or service, if the discrimination has significant effects on competition. Yet under this prohibition the monopolist does not violate the law if its trade terms, albeit discriminatory, enable its competitors to remain in business if they are reasonably efficient. The prohibition was analyzed above. This prohibition, along with the

\textsuperscript{140} The Israeli Passover Flour case, supra, note 20, is an interesting example of the above.

prohibition on setting monopolistic rates, creates strong incentives for monopolists to vertically integrate into another, potentially competitive market and exploit its market power in it. Thus, the refusal to deal prohibition is of great significance in EC competition policy.\textsuperscript{142}

Under the refusal to deal prohibition every firm in a dominant position, including a natural monopoly, is not permitted to refuse to supply a product\textsuperscript{143} or a service\textsuperscript{144} without justification or on terms less favorable than those which it gives its own competitive arm\textsuperscript{145} if this has significant effects on competition.\textsuperscript{146} The duty not to refuse to deal includes both existing and potential competitors,\textsuperscript{147} and it applies both to single-firm dominance and to joint ownership.\textsuperscript{148}

Given the broad scope of this prohibition, there is no real need for a special doctrine that deals separately with situations in which access to a facility is essential for effective competition in a vertically connected market. Although the European Commission has recently endorsed the creation of an explicit essential facilities

\textsuperscript{142} See also Lang, \textit{supra}, note 82, p. 280 (Arguing that since the EC market is nowhere as economically integrated for most products and services as the U.S., there are many more dominant firms in substantial parts of the EC and there are also many sectors in which the markets are often regional. Also, there are many regulated or state-owned monopolists which own assets that are essential for all or most of their downstream competitors. Accordingly, the refusal to supply prohibitions are much more important in the EC than in the U.S.).

\textsuperscript{143} \textit{Commercial Solvents, supra,} note 4 (Refusal to supply a raw material).

\textsuperscript{144} \textit{Telemarketing, supra,} note 13 (“The ruling also applies to the case of an undertaking holding a dominant position in the market in the service which is indispensable for the activities of another undertaking on another market...”).

\textsuperscript{145} For example, in \textit{Sealink} a dominant firm (a natural monopolist) operating a port and its own ferry service was found to violate Article 86 of the Treaty when it changed its planned ferry schedule to the effect of disrupting its competitor’s operations. The court forced Sealink to return to its original schedule. \textit{B & F v. Sealink, supra,} note 2.

\textsuperscript{146} For a thorough analysis of existing EC case law up to 1995 see Lang, \textit{supra,} note 82.

\textsuperscript{147} \textit{Sealink, supra,} note 5 (Sea Containers complained that Sealink should have an obligation to supply it with port facilities at Holyhead so that it could start up a new service. The Commission required Sealink to provide port facilities to Sea Containers on conditions no more nor less favorable that its own services enjoyed). See also \textit{Irish Continental Group v. CCI Morlaix} (case IV /35.388 May 1995)(Morlaix was obliged to open the port of Roscoff in Britain to a competing ferry service).

\textsuperscript{148} \textit{IGR Stereo Television- Salora,} Eleventh Report on Competition Policy [1981], pp. 63-4 (A company owned by all color TV manufacturers in Germany held a joint dominant position over patents needed for television sets equipped for stereo reception of German TV was required to license a foreign manufacturer to supply stereo TV sets in Germany). See also \textit{Amadeus/Sabre,} Twenty First Report on Competition Policy 73-4 (1992)(Agreement between two dominant airline computer reservation systems limited where the Commission was concerned that there might not be effective competition between the venture parties and other European joint-ventures if ventures discriminated in favor of their own airlines). Both cases applied Article 85 of the Treaty.
doctrine, the legal rules governing refusal to deal of essential facilities have been present, in substance if not in name, for many years. Use of the doctrine may signify a growing confidence to extend the frontiers of competition policy in this area. On the other hand, it may be just a useful label for some types of cases in which vertical integration is present that create a sub-category of refusal to deal cases.

The duty to supply arises only when supply is indispensable for the economic viability of the firm seeking supply and a refusal to supply would create an insuperable barrier to entry or a serious, permanent and inescapable competitive advantage which would make its activities uneconomic. It arises only when the firm seeking supply is unable, physically or for another objective reason other than its own size or lack of funds, to provide corresponding facilities for itself. The indispensability applies to natural monopolies, to government-created monopolies, and monopolies resulting from singular ownership or consumer demand patterns, much alike the essentiality requirement in the U.S.

The application of the indispensability requirement can be illustrated by the most recent case involving a refusal to deal claim, the Oscar Bronner case, in which the ECJ addressed legal issues referred to it by Austrian national courts. The case involved a refusal by a press undertaking which held a very large share of the daily newspaper market in Austria and operated the only nationwide newspaper home-delivery scheme to allow the publisher of a rival newspaper to have access to that scheme for appropriate remuneration. The rival newspaper seeking inclusion in the home-delivery scheme was unable, by reason of its small circulation (3.6% of circulation) and its consequently small number of subscribers, to build up its own home-delivery scheme for a reasonable cost and to operate it profitably. The ECJ was asked to determined whether such conduct

149 B &I v. Sealink and Sealink, supra, notes 2 and 5 respectively ("An undertaking which occupies a dominant position in the provision of an essential facility and itself uses that facility (i.e. a facility or infrastructure, without access to which competitors cannot provide services to their customers), and which refuses its competitors access to that facility or grants access to competitors only on terms less favorable than those which it gives its own services, infringes article 86, if the other conditions of that Article are met." para. 66). The ECJ had not yet referred to the doctrine in its jurisprudence.
150 Lang, supra, note 82 ("What the Commission now calls essential facility cases were simply merged with what was regarded as the general class of cases in which dominant companies have a duty to supply", at p. 250).
152 Oscar Bronner, supra, note 42.
constituted abuse of dominance within the meaning of Article 86, on the ground that such refusal deprived that competitor of a means of distribution which was essential for the sale of its newspaper.

The Court's analysis was based on the factual assumptions that a separate market exists in home-delivery schemes and that the press undertaking holds a dominant position in that market. It stated that even if these factual findings were found to be true, in order for a refusal to constitute abuse the plaintiff must establish "not only that the refusal of the service be likely to eliminate all competition in the market on the part of the person requesting the service and that such refusal be incapable of being objectively justified, but also that the service in itself be indispensable to carrying on that person's business, inasmuch as there is no actual or potential substitute in existence for that home-delivery scheme." It then held that these conditions were not met in the case at hand. In the first place, other methods of distributing daily newspapers, such as by post and through sale in shops and at kiosks, even though they may be less advantageous for the distribution of certain newspapers, exist and are used by the publishers of other daily newspapers. Second, it did not appear that there were any technical, legal or even economic obstacles making it impossible, or even unreasonably difficult, for any other publisher of daily newspapers to establish, alone or in cooperation with other publishers, its own nationwide home-delivery scheme and to use it to distribute its own daily newspapers. The Court emphasized that in order to demonstrate that the creation of such a system is not a realistic potential alternative and that access to the existing system is therefore indispensable, it is not enough to argue that it is not economically viable by reason of the small circulation of the daily newspaper or newspapers to be distributed. For such access to be capable of being regarded as indispensable, it would be necessary at the very least to establish that it is not economically viable to create a second home-delivery scheme for the distribution of daily newspapers with a circulation comparable to that of the daily newspapers distributed by the existing scheme.

153 Ibid.
The Court’s decision limits compulsory supply in some important respects.\textsuperscript{154} First, the court analyzes all the options of the firm seeking access, including a joint venture operation with all other existing rivals.\textsuperscript{155} Thus, if a particular competitor was especially vulnerable and could not compete without supply although other firms more normally situated could, it will not be granted supply.\textsuperscript{156} Second, compulsory supply will not be granted if refusal to supply will create a comparative advantage to the monopolist’s competitive arm but it will still allow a competitor to operate economically in the market, taking into account its overall commercial viability.

Another important decision is that involving Aer Lingus’ refusal to interline with British Midland.\textsuperscript{157} The decision is interesting in that it recognizes essentiality which is limited in time. Aer Lingus held a dominant position over the Dublin-London route. Once British Midland received a permit to fly this route, Aer Lingus terminated its interlining agreement with it. Interlining enables a passenger of one airline to go one leg of his trip with one airline company and another with another airline. The court recognized that interlining would not have significant effect on Aer Lingus’ own cost, whereas a refusal to interline would impose a significant handicap on British Midland. It then used Article 86 to mandate that Aer Lingus interline with British Midland, although it limited the time of the obligation to two years.

Another requirement of Article 86 is that the refusal to supply must significantly affect competition. This condition was interpreted very narrowly in the Commercial Solvents\textsuperscript{158} and CBEM\textsuperscript{159} cases, which require that the conduct in question be likely to

\textsuperscript{154} These limitations are especially important in light of the attempt by some commentators to construe the Magill decision very widely as to open the route to extensive compulsory supply. See Pat Teacy, "Essential Facilities- Is the Tide Turning?" (1998) E.C.L.R. 501, at p. 503.

\textsuperscript{155} The court speaks of a "comparable" network. It seems that this requirement should be defined very broadly, to reflect not the absolute size of the network but rather its operating costs per paper delivered. Size comparability is only important to the economic viability of a competing venture if large economies of scale exist such that in order to achieve minimum costs the new facility must be at least the size of the existing facility, assuming that the existing facility achieves lowest minimum costs.

\textsuperscript{156} See also discussion in Sub-section 5.3.5C.II(v) infra.


\textsuperscript{158} Commercial Solvents, supra, note 4.

\textsuperscript{159} Case 311/84 CBEM v CLT and JPB 1985 ECR 3261. This was also argued by the appellant in joined cases C-241/91 P and C-242/91 P RTE and ITT v Commission 1995 ECR I-743 (the Magill judgment), although the court did not specifically refer to this requirement.
eliminate all competition in a vertically related market.\textsuperscript{160} If there are a number of competitors in the downstream market and it is competitive, the refusal to supply one more competitor will not have a significant effect on competition (although it may have significant effect on consumer welfare if the refused competitor’s costs are lower or if it provides a different product or service from the others). Thus, there is no duty to supply if the downstream market is competitive, even if it is technically feasible to supply another competitor, unless the firm seeking access can show that it is being discriminated against to discourage it from competing vigorously.

The duties imposed on the monopolist are further reaching than those imposed by U.S. case law. The main duty is similar: to supply on non-discriminatory terms. The monopolist also has a positive duty to propose and seek solutions to meet a competitor’s needs, to provide users with the timely information they need to exercise their rights, and to consult with them to make the necessary arrangements, in order to maximize the overall benefits offered to consumers.\textsuperscript{161} Moreover, the monopolist is mandated to share its facilities on equal terms with new and existing competitors on a non-discriminatory basis.\textsuperscript{162} The standard of conduct to be applied to the dominant company is that of an independent operator controlling the facility or product in question.

The court also looks at objective justifications for the firm’s actions. In contrast to U.S. courts, the ECJ has recognized only very limited business justifications that could defeat a refusal to deal case.\textsuperscript{163} Objective reasons for refusal include shortages in supply, as long as the asset controller has allocated the existing capacity in a non discriminatory way,\textsuperscript{164} and having due regard to the controller’s own requirements to provide supplies during periods of peak demand and his other long term commitments; the relevant technical standards of the asset; and intellectual property or other property rights. The latter are applied very narrowly. An exclusive right of a proprietor to intellectual property

\textsuperscript{160} The ECJ in its \textit{Oscar Bronner} judgement also made this observation. \textit{Oscar Bronner, supra}, note 42, para. 38. Lang adopts a broader approach which incorporates situations in which one of the very few competitors is forced out of the market. Lang, \textit{supra}, note 82, p. 274.

\textsuperscript{161} \textit{Ibid.}

\textsuperscript{162} \textit{Sealink, supra}, note 5. See discussion in Section 5.3.5 C. III(i) \textit{infra}.

\textsuperscript{163} There are only a handful of cases in which a legitimate business justification for refusal to supply has been accepted by the Courts or the Commission, although in \textit{United Brands v. Commission} 27/76, 1978 E.C.R. 207 (C.J.) the Court did outline a proportionality test linking the proportionality of the decisions not to supply to the need to defend the dominant firm’s legitimate interests.

rights did not constitute an acceptable business justification for refusal to deal where such refusal prevented the introduction of a new product for which there was potential consumer demand.\textsuperscript{165} The greater the effect on competition, the harder it is to justify a refusal.\textsuperscript{166}

An important difference between EC and U.S. case law is that the ECJ does not recognize efficiency justifications for refusals to supply. The cases of \textit{Hugin}\textsuperscript{167} and \textit{Commercial Solvents}\textsuperscript{168} serve as good illustrations of this difference. Both cases involved decisions by an upstream supplier to undertake downstream activity (maintenance in the case of Hugin; manufacture of pharmaceutical products in the case of Commercial Solvents) and thereby undercut an existing competitor. In both cases the Court analyzed the effects of the monopolist’s decision on the existing supplier of such services and it emphasized the fact that the monopolist’s conduct would eliminate the only serious competitor that the monopolist’s subsidiary could face, but it neglected to analyze and evaluate the scope economies that can result from such vertical integration and the net effect on welfare. A refusal by a supplier to supply a potential downstream competitor in order to eliminate it as a competitor at that level of the market is thus considered to be a serious abuse.\textsuperscript{169} This concern with protecting competitors irrespective of the issue of welfare may well discourage efficient integration or efficient competition for fear of being characterized as anti-competitive.\textsuperscript{170} Yet the focus on the effect on competition rather than on net welfare effects may well be a result of the strong concern that a dominant firm would abuse its power in a vertically integrated market, resulting from EC price

\textsuperscript{165} Magill, \textit{supra}, note 159.
\textsuperscript{166} Lang, \textit{supra}, note 82, p. 274.
\textsuperscript{167} \textit{Hugin Kassaregister AB and Hugin Cash Registers Ltd. V. Commission}, Case 22/78 1979 E.C.R. 1869 (Case dismissed on ground of no effect on trade between member states).
\textsuperscript{168} \textit{Commercial Solvents, supra}, note 4 (“An undertaking being in a dominant position as regards the production of a raw material and therefore able to control the supply to manufacturers of derivatives, cannot, just because it decides to start manufacturing these derivatives...act in such a way as to eliminate competition”).
\textsuperscript{170} Richard Whish, \textit{Competition Law} (London: Butterworths, Third Ed., 1993) 280. For a different view arguing that the court in \textit{Commercial Solvents} applied a rule of reason and “the legal issues of whether full forward integration may be justified by efficiency considerations...remained open” see Gregory B. Adams “Antitrust Constraints on Single-Firm Refusals to Deal by Monopolists in the European Economic Community and the United States” (1985) 20 \textit{Tex. Int’l L. J.} 1. See also \textit{Filtron Tabacalera}, Nineteenth Report on Competition Policy, #61 (1990)(Termination of purchases of cigarette filters by cigarette manufacturer justified where manufacturer has vertically integrated downstream to its own production filters).
regulation. The inability of a court to always detect the true motives of the dominant firm may have led to a general presumption that focuses instead on harm to competition.

As will be elaborated in the discussion below, analysis of EC case law leads to a conclusion that much confusion presently exists. The first step that should be taken should be to clarify the rationale for the rules to be applied- whether they should focus on the leveraging of monopoly power to the detriment of consumers or on the effect of the monopolist’s actions on existing or potential competitors. In its current form, EC case law does not provide clear guidance in resolving this question. This is especially troubling given the large number of small jurisdiction that adopt EC law.

iii. Australia’s Double Regime of Supply Terms
Australia’s natural monopolies are regulated by a double regime. Section 46 of the Australian Trade Practices Act prohibits anti-competitive conduct, interpreted to include anti-competitive refusals to supply. In addition, recent amendments to the Act create a new regulatory regime, vested in the competition authorities, to ensure third-party access to essential facilities which a competitor cannot practically or reasonably duplicate in circumstances where such access would significantly increase competition. This regime was based on the recommendations of the Hilmer Committee, which endorsed the establishment of a legislative regime to permit competitors to gain access to facilities that cannot be economically duplicated, given the problematic nature of granting access based on Section 46 cases.

Section 46 of the Australian Act prohibits monopolists from abusing their monopoly power. Several Australian cases have involved refusals to deal by dominant firms. One of the best known Australian cases, Queensland Wire, involved a constructive refusal to supply. In this case, BHP manufactured a steel fence post known

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171 The Australian Trade Practices Act 1974, Section 44G.
172 National Competition Policy, Report of Independent Committee of Inquiry, AGPS, August 1993 (hereinafter: “Hilmer Committee Report”). The Committee saw the traditional rules applied to abuse of power by a monopolist as an inadequate mechanism to facilitate access to facilities owned by vertically integrated monopolies. Deficiencies of the rules were said to include the reluctance of the courts to impose terms of dealing on the parties and the delays associated with litigation. It also pointed to the difficulty of proving anti-competitive purpose when access is refused.
174 Queensland Wire, supra, note 114.
as a star picket. It was the sole domestic producer of star picket fences which it produced from an intermediate steel product called a Y bar. QWI competed with BHP in the rural fencing market comprising wire, fence posts and hinges. QWI sought supplies of Y bar from BHP in order to manufacture its own star picket fence posts, and thereby be in a position to deliver a full range of products to large consumers at competitive prices. BHP refused to supply QWI with Y bar other than at list prices, which did not enable QWI to sell the bars to large end users at a profit. The Australian Courts found an abuse of dominance, since the price set for the Y bars was unreasonably high, without an analysis of leveraging or the assessment of power gained over price. The Full Federal Court declined to accept the doctrine of essential facilities but left open the possibility of its application to “electric power, transport, communications or some other ‘essential service.’”

In the MacLean case the relevant product market was the raw material cypermethrin used in the production of an insect-killing chemical product for use on sheep, and the only effective source of supply was through the defendant. The defendant was prepared to supply raw material but only on the basis that the plaintiffs enter into a joint venture. The negotiations broke down and afterwards the defendant was only prepared to supply on new conditions which, the plaintiffs alleged, were not commercially viable and would effectively destroy their ability to compete in the downstream market. The Australian Court was prepared to grant an interlocutory injunction restraining the defendant from failing to supply the raw material in accordance with the terms of the joint venture agreement.

Other cases have held that refusal to supply can be justified by legitimate reasons, such as protecting the monopolist’s reputation. These cases incorporate a very broad compulsory supply rule, as they do not look at the effect of the refusal on welfare but

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175 However, the product was not essential for QWI to compete in the sale of fence posts at the retail level because fence posts could be obtained elsewhere by way of imports from Korea or from a potential new domestic producer. See Warren Pengilley “The Privy Council Speaks on Essential Facilities Access in New Zealand: What are the Australian Lessons?” (unpublished paper, Oct. 25, 1994) p. 10.
176 Ibid, at 49,076-7
178 Top Performance Motors Pty Ltd v. Ira Berk (Qld) Pty Ltd (1987) RTP 40-809(motor vehicle dealers were cut off by a dominant supplier for failing to perform satisfactorily. It was held that termination was to protect the supplier’s legitimate interests and not for a proscribed purpose.)
rather on the effect on a specific competitor. In addition, refusals used as part of a predatory tactic are considered to be anti-competitive.179

Part IIIA of the Trade Practices Act resembles in its conditions the U.S. essential facilities doctrine.180 Despite the similarities, important differences exist between the two regimes. First, the legislated access regime applies to facilities to which access is essential to permit effective competition in an upstream or a downstream activity in an industry which is significant to the national economy. Second, the regime does not apply to the supply of goods, the use of intellectual property or the use of a production process, except to the extent that they are an integral but subsidiary part of a service. Third, no anti-competitive purpose has to be proven.

The Act contains a two-part process: the first step entails declaration of the service as essential by the responsible Minister of the State or Territory, by his own initiative or based on the recommendation of the Australian Competition and Consumer Council (“ACCC”). The criteria for declaration involves the following parameters (a) that access (or increased access) to the service would promote competition in at least one market, other than the market for the service; (b) that it would be uneconomical for anyone to develop another facility to provide the service; (c) that the facility is of national significance, having regard to the size of the facility; its importance to trade or commerce; its importance to the national economy; (d) that access to the service can be provided without undue risk to human health or safety; (e) that access to the service is not already the subject of an effective access regime; (f) that access would not be contrary to the public interest. Public interest would, most likely, be interpreted as including efficiency and consumer welfare considerations.181

179 See, for example, TPC v. CSR (1991) ATPR 41-076 (Cut-off of supply by a prominent supplier because re-supplier purchased some products from a competitor of the supplier); Canberra Cab Co. Investigation, Trade Practices Commission 1992-3 Annual Report, p. 76-7 (Refusal by a cab monopoly to grant access to radio facilities to newly licensed drivers. The case did not proceed to litigation when the monopolist changed his policy after a Commission’s indication that its practice is abusive).
180 Alternatively, all states and territories were permitted to set up their own regimes for access to essential facilities as an alternative to the Commonwealth scheme, provided it meets some prerequisite terms.
The second step involves setting access terms. If the parties cannot reach agreement, the second step is arbitration by the ACCC. Both the Minister's decision on whether to accept a recommendation to declare a service and the ACCC's arbitration of the terms of access are subject to review by the Competition Tribunal. The ACCC is empowered to accept undertakings from service providers which, once accepted, by-pass the declaration process.

II. Discussion: The Efficiency of Legal Requirements

Assuming that the laws governing supply by essential facilities are based on an economic rationale, an important issue is whether they actually succeed, in their current form, in achieving economic efficiency. This section analyzes the legal requirements in an attempt to evaluate their efficiency in light of traditional and new criticisms.182

Over-broad or inappropriate application of compulsory supply carries the risk of great costs to the dynamic incentives that provide the engine for economic and technical progress. It is therefore vital that a clear analytical framework be adopted when considering their applicability.183 It is always tempting to respond favorably to a firm that complains of lack of access to a market. Yet to arrive at a balanced appraisal of regulation, it is necessary to apply limiting principles that ensure that competition laws are properly constrained to circumstances where regulation is the only solution that will ensure efficiency.

The theory on which efficient compulsory supply rests is quite simple: The monopolist may always make its own goods or services better for consumers, but may not discriminate against its competitors or take steps that merely make its competitors worse in order to gain an advantage not based on its comparative advantage. Thus,


183 Ridyard, supra, note 29. Areeda has pointed out that "you will not find any case that provides a consistent rationale for the doctrine that explores the social costs and benefits of the administration costs of requiring the creator of an asset to share it with a rival" Areeda, supra, note 49.
discrimination in favor of its own competitive arm implies that its operations are less efficient than those of its competitors and need to be subsidized. The welfare-reducing effects of such conduct override the interests of the monopolist in having exclusive use of its assets. This approach does not deprive the monopolist from all the benefits of ownership. It may charge high prices for the use of its assets. It may, if it wishes, refuse supply to a firm that does not need supply in order to compete or if such supply does not increase welfare. The discussion below evaluates the compulsory supply provisions against this benchmark.

i. The Harm Inflicted by Refusal to Supply or Discriminatory Supply
An important element of compulsory supply provisions involves the harm inflicted by the monopolist’s action. The U.S. and EC case law theoretically focus on harm to competition, while some of the case law can be interpreted as focusing on harm to specific competitors. As this section argues, neither should be the focus of compulsory supply. Rather, court should focus on the results that competition is said to achieve, that is, enhancing economic welfare.

Several prominent scholars have suggested that a monopolist should not be forced to deal unless so doing is likely to substantially improve competition in the marketplace. Areeda and Hovenkamp, for example, suggest that the asset controller should not be forced to supply unless its discriminatory terms do, in fact, harm competition in a related market by reducing the number of competitors competing there. The purpose of the essential facilities doctrine, they argue, is not to permit particular rivals to survive, but to make the market more competitive. Thus, a vertically integrated monopolist that discriminates among competitors should not be mandated to act otherwise unless its actions harm competition in the downstream market. It follows that where the downstream market can support only one firm, merely substituting one competitor for another will not increase the number of competitors operating in the market and should not be mandated. A similar view can be traced to the EC cases of Commercial Solvents

\[\text{Lang, supra, note 82, p. 283.}\]
\[\text{Fox, supra, note 98.}\]
\[\text{Areeda and Hovenkamp, supra, note 44; Areeda, supra, note 49.}\]
\[\text{Commercial Solvents, supra, note 4.}\]
and *CBEM*, which require, as an element of the anti-competitive offense, that the conduct in question is likely to eliminate all competition in a vertically related market.

This suggestion suffers from an inherent flaw, given that it focuses on competition instead of on its results. A legal rule that looks solely to the number of existing competitors might create inefficient results by enabling the monopolist to abuse its market position in order to eliminate its most efficient competitors. Assume, for example, that a natural monopolist has economic incentives to reduce competition in a related market. Further assume that it deliberately refuses to serve the most efficient competitors, in order to allow its own competitive arm to enjoy a comparative advantage. The monopolist's decision whether to deal or not may have a detrimental effect on consumers if its refusal eliminates the most efficient competitors in the market. Not only will productive efficiency not be achieved, but the incentives of future competitors to invest in and to utilize more efficient production techniques will be severely reduced. Accordingly, an approach which depends on foreclosure of sales to competitors without proof of injury to consumers should be rejected.

Focusing on the harm to *specific competitors*, as some of the early EC cases and the Australian cases seem to do, also does not increase welfare. Such a focus might protect inefficient competitors. It might also block the vertical integration of a monopolist even if it serves to realize scope economies. Moreover, if there is sufficient competition in the final product market, compulsory supply has no effect on the market price of the end product.

Instead, we advocate a focus on the welfare effects of compulsory supply. A theoretically optimal rule would mandate the monopolist to supply only competitors that are more efficient than its competitive arm. However, such a rule would be extremely difficult to apply in practice given that courts do not have the tools necessary to determine the relative efficiency of firms competing in the market. A more practical rule would require the monopolist to grant non-discriminatory supply and symmetric treatment to all competitors alike, as long as such non-discriminatory supply is necessary in order to increase welfare. In other words, a refusal to supply should not be deemed

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Footnote:

188 Case 311/84 *CBEM v CLT and IPB* 1985 ECR 3261. This was also argued by the appellant in *Magill* although the court did not specifically refer to this requirement. *Magill, supra*, note 159.
anti-competitive if it has no negative welfare effects, or if the grant of compulsory supply will reduce welfare. This will ensure that only the most efficient firms would be able to operate in the market.

The focus on welfare implies, for example, that if granting supply will not reduce the price or increase the quality of products to the end consumer, then no compulsory supply should be granted. For example, a coal miner that can ship its coal into a coal market only by using an existing railway line should not be granted access to the railway if the coal market is already competitive and shipping its coal into the market would not reduce the price of coal to competitors. In other words, if the market for the final product is already competitive and another competitor would not increase welfare, then no compulsory supply should be granted. This rule should apply even if supply is essential to the competitive viability of a competitor and even if the asset controller has significant market power in the market for the asset. Otherwise, compulsory supply involves competition courts in distributional questions— which party is entitled to enjoy the profits from their trade. Another example of a case where compulsory supply should not be mandated is where adding members may reduce efficiency if the facility has reached an optimal size. Also, a monopolist should be permitted to take over the lower level of operations if it is as least as efficient as the lower level user. The monopolist will reap more profit, but the optimal monopoly price to consumers may be lower.

A more difficult choice arises if the monopolist refuses to deal with a firm that is in competition for a successive natural monopoly market, or in competition for a successive essential facility such that a monopoly is not created but merely transferred.

189 Brief of EC Advocate General in Oscar Bronner, supra, note 42 ("[Refusal to deal] will not have adverse impact on consumers unless the dominant undertaking’s final product is sufficiently insulated from competition to give it market power").
190 For optimality in aggregative facilities see Buchanan, “An Economic Theory of Clubs” (1965) 32 Economica 1.
191 Buyars v. Bluff City News Co. 609 F. 2d 843 (6th Cir. 1979) at 861.
192 In Fishman v. Wirtz both the defendant and the plaintiff sough to purchase the Chicago Bulls- the city’s only NBA franchise. The defendant, who controlled the city’s only appropriate basketball stadium, refused to lease the facility to the plaintiff. The court imposed a duty to deal notwithstanding the fact that only one NBA team would be in Chicago regardless of who owned the franchise.1981-2 Trade Cas. (CCH) p64, 378, at 74, 765 (N.D. Ill. Oct. 28, 1981), aff’d rev’d and vacated in part, 807 F. 2d 520 (7th Cir. 1986). For a contrary position see Almeda Mall Inc. v. Houston Lighting & Power Co., 615 F. 2d 343 (5th Cir.) (No liability for refusal by monopolist utility company to sell electricity to developers of local shopping center desiring to resell because the developers would merely substitute for, not compete with, the monopolist) cert. denied, 449 U.S. 870 (1980).
from one firm to the other. Such refusal to deal would not result in the elimination of a competition, since the vertically related market can only support one firm. It will not reduce allocative efficiency since even if an efficient monopolist operated in the successive market the lower costs of production would not necessarily be translated into lower costs for consumers, but would rather be shared between both monopolies. However, a more efficient successive monopolist may well reduce productive inefficiency. Accordingly, substitution of one competitor for another less efficient competitor may still raise competition policy concerns, where increasing total welfare is the ultimate goal.

An important issue involves the allocation of burdens of proof. Placing the burden of proof that the monopolist’s actions are welfare reducing on a competitor is problematic, in that a competitor generally lacks access to the relevant information necessary to establish such a factual argument. A more appropriate approach would be to give more weight to a business justification defense so as to acknowledge vertical arrangements and refusals to deal that are welfare enhancing. The analysis by the courts should focus not only on the adverse effects on competitors or competition, as most courts typically do, but also on structural efficiency concerns. A court should determine whether a refusal to supply was a by-product of a plan to increase productive efficiency or whether it was a tactic to eliminate or impose costs on a competitor and thereby increase market power or to circumvent regulation.193

It may still be that a business justification defense is an inadequate tool if quantifying structural efficiencies are difficult to prove.194 A change in burdens of proof may be required as follows. The plaintiff should provide a compelling explanation why the restraint in a particular case creates an actual or probable competitive injury. Nonetheless, the plaintiff would only be required to establish a prima facie case that will

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194 Gerber, supra, note 39, at p.1095, citing Hovenkamp, “Antitrust Policy, Restricted Distribution and the Market for Exclusionary Rights,” 71 Minn. L. Rev. 1293, 1310 (1987)(“Quantifying the magnitude of such efficiencies in general, or even determining whether they actually obtain in a particular case...is generally beyond the court’s capacity.”)
then shift the burden to the defendant to prove that vertical integration was not used to achieve anti-competitive ends.  

Recent U.S. case law can be interpreted as acknowledging the focus on the effects of the monopolist's actions on welfare. The Eighth Circuit in *Paschall* for example, found that a newspaper holding a natural monopoly in the newspaper market in Kansas City could refuse to deal with the independent carriers, which had previously distributed its papers to the public, without violating section 2 of the *Sherman Act*. The Eighth Circuit, relying heavily on economic theory, held that the newspaper's vertical integration was not exclusionary conduct because it would in fact increase productive efficiency. The ECJ has in the past rejected a defense that abuse is dependent upon harm to consumers.

However, a different view was recently advocated by EC Advocate General in its brief in the *Oscar Bronner* case: “The primary purpose [of compulsory supply] is to prevent distortion of competition- and in particular to safeguard the interests of consumers- rather than to protect the position of particular competitors.”

The doctrine's efficiency should also be evaluated against the background of other legal rules regulating the activity of natural monopolies. For example, where the monopolist is not prevented from price discrimination, its incentives to vertically integrate are reduced. A natural monopolist operating under such scenario faces two options of whether to vertically integrate or not. If it vertically integrates, the essential facility doctrine would require it to grant all of its competitors in the vertically interconnected market similar supply terms as it grants its competitive arm. This implies that although it

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195 T.G. Krattenkamer and Steven Salop, “Anticompetitive Exclusion: Raising Rival’s Costs to Achieve Power Over Price” (1986) *Yale L. J.* 209, at p. 282 (Efficiency defenses should be subjected to objective tests of the likelihood and magnitude of cost savings and the defendants should bear the burden of specifically proving these justifications in cases where the plaintiffs have proved an actual or probable injury to competition” p. 292).

196 *Paddock Publications Inc. v. Chicago Tribune Company et al.*, 103 F. 2d 42 (7th Cir., 1996) (Judge Easterbrook: “An approach which depends on foreclosure of sales to competitors without proof of injury to consumers- reflects a bygone day in antitrust analysis.” p. 46). The U.S. Supreme Court decision in *Aspen*, *supra*, note 121, applied a welfare-based test for exclusionary conduct by requiring that “exclusion [be] on some basis other than efficiency”. Yet there was no real investigation of the inefficiency of the change in the pattern of distribution, other than the damage to the competitor and the inconvenience to consumers, which do not differentiate competition and exclusion.


199 *Telemarketing, supra*, note 13 (The court rejected a defense that an abuse does not occur unless the abusive conduct is “likely to harm consumers, for example, by the imposition of unfair prices and conditions.”)

can charge a high monopolistic rate, it cannot price discriminate in order to maximize its monopoly profits. On the other hand, if the monopolist chooses not to operate in the vertically integrated market and to forego the cost efficiencies that can be realized from scope economies, it will be able to charge discriminatory rates to its customers, thereby maximizing returns from its rent seeking activity. The choice between these two alternatives is determined by the extent of the monopolist’s overall total profits under each scenario, depending on the circumstances. But it is clear that the incentive of the monopolist to realize scope economies are reduced by the profit to be gained by charging discriminatory prices. Of course, the ability of the monopolist to hide the real prices that it charges its competitive arm for its input from a court of law reduces this disincentive to vertically integrate. This analysis points in favor of allowing price discrimination.

ii. The Rationale for compulsory supply and the single monopoly profit theory

There is no economic justification for compulsory supply if sharing of an asset does not increase welfare. The presumption that vertically integrated monopolists seek to decrease competition in the vertically related markets contradicts the single monopoly profit theory that states that the monopolist of a single link in the chain of production can appropriate the entire chain’s monopoly profits, without the need to refuse to deal with its competitors. Thus the monopolist is not necessarily motivated by predatory tactics in its decisions to discriminate between competitors it serves and with whom it also competes in a vertically related market. Rather, if the monopolist can duplicate monopoly conditions without refusing to deal, vertical restrictions serve efficient ends. If this is the case, then basing an anti-competitive finding on foreclosure by a vertically integrated monopolist may discourage efficient conduct without a corresponding benefit in terms of deterring anti-competitive conduct.²⁰⁰

Several scholars thus suggest that refusals are generally efficient, not anti-competitive, as they are not necessary in order to extract monopoly profits. Accordingly, the law should presume that efficiency motivates monopolists absent any anti-competitive incentive for refusals to deal, instead of presuming that the monopolist has engaged in

²⁰⁰ Gerber, supra, note 39, p. 1084.
anti-competitive conduct. It follows that a plaintiff should establish an economic basis for why a refusal to deal is welfare decreasing before a court imposes a duty to deal. 201

These suggestions are problematic for a number of reasons. First, under all legal systems surveyed the monopolist is either prevented from charging discriminatory supply terms or is prevented from charging supra-competitive rates. This automatically limits the applicability of the single monopoly profit theory. As noted above, where the monopolist is technically or legally prevented from extracting all its monopoly rents from vertically linked markets, it may impose restrictions on its competitors in order to create a competitive advantage to its own arm. The theory also does not apply in a host of other situations, such as where the asset is nearing the end of its life and the monopolist attempts to prolong its monopoly artificially by establishing a strong-hold in an adjacent market, or where the natural monopolist is under a threat of competition for the market. The legal provisions, in their current form, do not differentiate between such cases. The essentiality requirement moves the focus away from the incentives of the monopolist to engage in predatory tactics or to evade regulation to the effect on competitors. Second, as noted in the previous sub-section, placing the burden of proof that the monopolist’s motivation to refuse to deal was anti-competitive on a competitor is problematic.

iii. Essentiality- The Importance of a Correct Market Definition
The criterion used to determine the scope of assets subject to compulsory supply is crucial to its efficient application. All jurisdictions surveyed adopt a narrow test, one that differentiates between assets that are merely advantageous to competitors and assets that are essential or indispensable to their competitive viability. This narrow criterion is based on the necessary balancing between competing dynamic and static considerations. The application of this criterion, in specific cases, raises some intriguing issues.

The identification of an essential facility often hinges on the relevant market definition. Even if the correct regulatory principles are set in place, the duty to supply may still produce inefficient results if markets are defined too narrowly. Such a mistake can easily result if the court tends to analyze the factual situation from the point of view of the firm refused supply. But even if such a firm does not have any viable alternatives

201 Bork, supra, note 32, p. 141; Gerber, supra, note 39, p. 1085; Reiffen and Kleit, supra, note 41, p. 435.
for its operation without access to the facility at hand, this does not automatically imply that the refusal affects competition and its outcomes in the market in which the firm refused supply operates.

Illustrative cases involve refusal to supply spare parts to third party maintenance services or similar after-sales service operators. In the EC *Hugin*\(^{202}\) and the UK *Ford Body Panels* cases\(^{203}\) the relevant competition authorities took a narrow view of the relevant market within which the plaintiff operated, defined as the market for spare parts of a specific product, although in both cases the firm faced extensive competition from other original equipment manufacturers. Such market definition almost automatically leads to a finding of essentiality. This definition is flawed in that although the manufacturer can increase short-term gains by taking advantage of "locked-in" consumers, it is constrained by competition from competing manufacturers that manufacture competing products. Consumers will take into account, when evaluating their alternatives, the costs of spare parts in making their initial decision. Another case where too narrow a market definition has led to an unrealistic analysis is the U.S. Supreme Court’s *Aspen Skiing*\(^{204}\) case. There, the Supreme Court defined the market as the skiing mountains in aspen, instead of defining it as the available ski resorts that potential customers will travel to.\(^{205}\)

A more economically based market definition would have looked at the competition facing the original manufacturer in its main market when defining the relevant market. In the U.S. case of *Berkey*,\(^{206}\) for example, the court rightly concluded that since there was effective competition between rival systems, there was no need for competition in the maintenance of any particular brand to secure a workably overall

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\(^{202}\) *Hugin Kassaregister AB v. Commission* 1979 E.C.R. 1869, [1978-9 Transfer Binder] Common Mkt. Rep. (CCH) 8524 (Relevant market defined as Hugin’s cash registers’ spare parts in Britain in which Hugins held 100% of the market due to customer dependence. Yet Hugin accounted for only approximately 13% of cash registers sold in Britain. Case dismissed by ECJ based on finding that the refusal to sell spare parts to a British distributor did not affect trade between member states).

\(^{203}\) *Ford Motor Co. MMC investigation* (1985).

\(^{204}\) *Aspen, supra*, note 121.

\(^{205}\) Easterbrook, *supra*, note 121.

\(^{206}\) *Eastman Kodak Co. v. Image Technical Services, Inc.* 112 S. Ct. 2027 (1992). The Supreme Court rejected, however, Kodak’s argument that inter-firm competition restrained sufficiently its power in its after-markets, on a factual basis. For a similar analysis see the UK MMC investigations of *Exhaust Gas Analyzers* (1993) and *Supply of Motor Car Parts* (1992).
competitive outcome. If there exists effective competition in the main market and this competition embraces and is affected by considerations of maintenance costs and service quality, there is no good reason to use competition laws to intervene on behalf of a non-affiliated maintenance operator. Firms that insist on in-house maintenance will lose in the long run to more flexible and efficient firms if their service reduces overall consumer satisfaction.

More recent EC case law seems to have taken a more economically-based approach to market definitions and broadened market definitions to encompass all economic substitutes. The recent case of European Night Services serves as a good illustration. The main railway companies in the UK, Germany, the Netherlands and France formed a joint venture, European Night Services (ENS) to provide overnight passenger rail services between the UK and continental Europe by way of the Channel Tunnel. This required a large and risky investment in fast trains and their crews as well as in path trains through the Tunnel. The Commission, which defined the market as that of train services through the Channel Tunnel, found that the agreement infringed Article 85(1) of the Treaty of Rome and granted an exemption subject to condition that train tracks and special locomotives be made available to third parties seeking access. The Court of First Instance reversed, basing its decision, inter alia, on the fact that ENS faced extensive competition in the market for the carriage of business and leisure passengers between the UK and the continent, in which ENS held only a 5% market share. The Court emphasized the need for a realistic analysis of the economic context and impact of a transaction.

iv. Factual Situations that Create Essential Facilities
Some commentators argue that compulsory access should be limited to natural monopolies. While natural monopolies pose the strongest case for mandating access, the doctrine should also encompass other factual situations in which the facility cannot be

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208 See, for example, Werden, supra, note 113.
economically duplicated. One such example is where government-created entry barriers make it impossible to duplicate supply, such as the grant of a legal monopoly.209

Essential facilities may also result from the concentration of ownership of all potentially competing assets in one set of hands. The U.S. Terminal Railroad case,210 often incorrectly cited as a case involving a topographical natural monopoly, is a case in point. There, the defendants had acquired control of all viable competitive methods of transportation across the Mississippi into and out of St. Louis, including railways, bridges and car ferries which constituted potential competitive systems.211 In so doing, the defendants created a horizontal monopoly. A similar situation results where, for example, a taxi cab operator controls all the existing medallions for operating a taxi service. The same rules regulating compulsory supply as apply in natural monopoly and government-created essential facilities should apply equally in such cases. The only difference is remedial: while natural monopolies and government-created legal monopolies cannot be eroded simply by dispersion of ownership, this is a viable solution in the case of a horizontal monopoly.212

It should be noted that essentiality of a facility is not recognized where it as arisen as a result of the anti-competitive conduct of a monopolist. In such cases the remedy should focus on eliminating the results of the monopolist’s anti-competitive conduct. Also, as suggested in sub-section (i) above, the fact that a facility is essential to the competitive viability of a competitor is not a sufficient condition to grant compulsory supply.

An intriguing set of cases involves those in which several firms produce outputs of the same kind which are essential complementary inputs for the operation of firms in an adjacent market. The output can be the firms’ main product, or a by-product of another market in which they do or do not have market power. These cases can be analyzed under the essential facility doctrine only if each output is analyzed as a separate product market. Otherwise, the condition for dominance would not be met. While in most cases involving essential facilities the facility controller is the only firm operating in the downstream or

209 See, for example, the EC case of Telemarketing, supra, note 13.
210 Terminal Railroad, supra, note 76.
212 See Section 5.3.5 C. III infra for an elaborate discussion of available remedies.
upstream market, in this situation the facility controller is not the only firm producing output of the same kind.

Several jurisdictions have grappled with such situations. The Canadian Nielsen\textsuperscript{213} case and the EC Magill\textsuperscript{214} decision both apply to such situations. Nielsen involved the production of scanner data that were a by-product of retail stores and that were essential complementary inputs for the scanner data tracking services market. Magill involved the weekly scheduled program listings of all broadcasting firms that were essential complementary inputs for a comprehensive weekly guide. In both cases the firms producing the inputs did not possess a dominant position in their main markets (retailing and broadcasting). One of the main differences between the two cases is that while Magill focused on the alleged anti-competitive actions of the firms producing the inputs, Nielsen focused on the actions of a monopolistic downstream firm that utilized the inputs of such firms to its advantage. The result is that the Canadian decision does not create any guidelines on how to deal in the future with cases in which input producers are brought to trial.\textsuperscript{215} Another major difference is that in Nielsen there was no vertical integration, while in Magill vertical integration was present.

Magill\textsuperscript{216} involved the refusal of two broadcasting firms operating in Ireland and North Ireland, together with the BBC, to sell their weekly scheduled program listings to a third firm which attempted to publish a comprehensive weekly TV guide. The court found that the two firms abused their dominant position by refusing to grant licenses for the publication of their weekly listings, necessary in order to meet consumer demand for a new product that would incorporate the listings of all firms broadcasting in Ireland, without an objective justification. The case is interesting in two respects. First, it involved placing limitations on the intellectual property rights of the broadcasting companies over their listings. Second, the input of each firm was unique in that the listings of all firms were necessary in order to create a comprehensive guide (what the Commission termed “factual monopoly”). The ECJ stated that the appellants were “de facto monopolists”

\textsuperscript{213} Nielsen, supra, note 19.
\textsuperscript{214} Magill, supra, note 159.
\textsuperscript{215} For the legal case that can be made against the suppliers of complementary inputs see Michal S. Gal “The Nielsen Case: Was Competition Restored?” (1997) 29 Canadian Business L. J. 17.
\textsuperscript{216} Magill, supra, note 159.
since they were "the only sources of basic information on programme scheduling which is the indispensable raw material for compiling a weekly television guide". Thus, although none of the firms had a dominant position in the broadcasting market, the fact that their inputs were necessary complements in the secondary market was sufficient for the court to deduce a dominant position.

Although the ECJ was able to deduce a dominant position, its analysis is confusing. Instead of focusing on the dominant (natural monopoly) position that each firm held in its broadcast listings market, it chose to focus on their position in the broadcasting market. Such focus is misleading. Even if five or even ten firms with equal market shares operated in the broadcasting market, none of which would clearly hold a dominant position in the broadcasting market, the weekly schedules of all or most of the broadcasting firms would still be essential inputs in the secondary market. Put simply, their position in their main market does not necessarily affect the essentiality of their input in a second market, where no marketable product could be created without each firm’s, or at least the major firms’, inputs. Moreover, unlike the Berkey case analyzed above, the refusal to deal in the secondary market does not necessarily affect the consumer’s decision to buy the main product (broadcasts). Consumers would not stop viewing a TV channel just because it publishes its own TV guide separately and does not participate in the publishing of a TV guide of some other firms (unless such guide is a main source of information for a significant number of consumers). Similarly, consumers would not stop shopping in a retail store just because it does not provide its bar-coded information to market data analyzing firms. A clearer analysis would focus on the control of each firm over an input which is a complementary essential input in a second market, as well as on the effect of the refusal to supply on the competitiveness of the firm in its main market.

v. Essentiality for the economic viability of competitor(s)

The test for essentiality in all jurisdictions is a narrow one which focuses on the effect of refusal to supply on the economic viability of the firm seeking supply.\(^{217}\) Although

\(^{217}\) Gerber suggests four salient characteristics of essential facilities. First, the facilities must be unique, otherwise access to similar competing facilities allows potential users to circumvent the facility’s control.
jurisdictions use different phrases, from essentiality to indispensability, these tests generally focus on whether the handicap resulting from refusal to supply creates an insuperable barrier to entry, one that can reasonably be expected to make competitor’s activities in the market in question either impossible or permanently, seriously and unavoidably uneconomic.\textsuperscript{218} None of the laws create a duty to supply when supply is not essential but merely advantageous, even though it may have significant effects on competition.

It is argued that the effect of the refusal to supply should not be based on the overall viability and competitiveness of a competitor but rather on the viability of providing a competing asset where the competitor is willing to put in comparable effort to create a competing facility as the existing asset controller. A focus on the competitor’s overall viability may lead to situations in which, although it is more efficient for the market to be served by a single firm, the doctrine will induce duplication of a natural monopoly. This is the case where the absolute costs of duplication are not high enough to affect significantly the viability of a competitor in a market. Assume, for example, that a natural monopoly enjoys decreasing or constant economies of scale over the whole range of the market, such that its marginal costs of production decrease or stay constant the more it produces. Further assume that the monopolist has incentives to foreclose the downstream market. At the same time, assume that the costs of duplication of its facilities have a relatively insignificant impact on the cost function of a firm utilizing the monopolist’s output, or that the firm seeking supply can still economically produce its widgets by using a much less efficient production technique that utilizes different widgets. Under current law, the effect of such duplication on the competitor’s viability is determined not only by the absolute cost difference between the monopolist’s prices (affected, in turn, by the monopolist’s rent extraction and the extent and significance of scale economies over the relevant range of production) and the competitor’s production costs but also by the effect of increased input costs on the competitor’s overall cost structure. If the competitor can still compete, albeit with higher costs, the court would,

\textsuperscript{218} Lang, \textit{supra}, note 82, p. 244–5.
most likely, not consider the facility essential and it would not require the natural monopoly to grant access to its facilities. A natural monopolist would thus be able to neutralize a lower cost and thus a more efficient competitor, by refusing to serve it. The cost to society of such duplication is based on three elements: The wasteful duplication of production facilities, the higher cost of production for the whole market if the natural monopolist cannot achieve lowest cost of production over the range of demand it supplies, and the higher production costs of the competitor whose request is denied. While reluctance to require a natural monopolist to share its facilities and the need to serve oneself creates incentives to innovate and apply new technologies that reduce the costs of production, the ability to create such technologies may be limited in the case of many natural monopolies and government-created essential facilities. A rule that focuses on the overall viability of competitors would also differentiate between well established firms that operate in many fields of business and small competitors that operate only in the vertically related market. Such differentiation is not justified on economic grounds.

Essentiality should thus not be based on the overall viability of the competitor seeking supply. It would be more efficient to focus on the ability of a competitor to create a competing asset that will be economically viable on its own and that would allow the new competitor to create a higher quality or lower cost product.

An important issue arises where supply is essential to the commercial viability of some competitors, but not to the commercial viability of others. Should the asset still be deemed essential or does the fact that some competitors can compete without supply negate the essentiality presumption? Strong considerations point in favor of the second view. The fact that one particular competitor needs access to a facility in order to enter the market is irrelevant if other more normally situated competitors do not. A different rule would normally protect inefficient competitors and reduce the ownership rights of the asset controller. In addition, it would require the dominant firm to assess the effect of its refusal on the specific characteristics of each firm requiring supply and would create uncertainty. The question should thus be whether the denial was one that would make it impossible for any competitor to enter the market and survive economically.

The Israeli Dubek case is interesting in that it finds a facility essential for some competitors while not essential for others. Dubek involved an attempt by a cigarette manufacturer to vertically integrate into distributional activities. The Israeli cigarette market is controlled by two main firms: Dubek, which holds approximately 72% of the market and enjoys a natural monopoly in the manufacture of Israeli cigarettes, and Elishar, the largest cigarette importer (25% market share). In addition, two small importers operate in the market (which control 1 and 2% of the market share). For years all the firms distributed their cigarettes through a joint distribution network. The case involved Dubek’s attempt to create a vertically integrated autonomous distribution network that would distribute its cigarettes only. Two justifications were set forth by Dubek for its actions. First, the joint distributorship operates under a conflict of interest, as the distributors enjoy higher commissions on imported cigarettes. Second, a new distribution arrangement would enhance efficiency by incorporating computerized distribution and by reducing the number of distributors. These cost savings, it was argued, would more than offset the scale economies lost by serving a smaller portion of the market. The court emphasized that under the new arrangement distribution costs for all the remaining firms would rise significantly. While Elishar would still be able to economically operate its own distribution network, the smaller importers would not be able to distribute their cigarettes economically and would be forced to exit the market. The public would be harmed both by the smaller range of products and by the higher distribution costs of all market participants. It then mandated Dubek, based on an essential facility doctrine, to grant access to its distribution facilities to the small importers.

In fact, the Israeli court found that Dubek’s distribution system constitutes an essential facility for some market participants while not for others. While the Israeli court did not recognize the implications of its ruling, its decision broadens considerably the scope of the essential facilities doctrine to situations that go far beyond those in which the doctrine is applied elsewhere. The EC Oscar Bronner case, analyzed above, which is

221 Ibid.
222 *Oscar Bronner*, supra, note 42.
based on a very similar factual scenario, reached the opposite conclusion. There, the unique newspaper distribution system of one of Bronner’s competitors was not found to be essential even though a small competitor could not, on its own, duplicate the facility, as long as a differently situated firm or a joint venture could create a competing distribution system. A similar principle was adopted in the U.S. case of Paddock. There, Judge Easterbrook stated that where the plaintiff argued for compulsory supply of news services from one of three existing major competitors, the plaintiff’s claim “was fundamentally an “essential facilities” claim—but without any essential facility.” An essential facility claim must involve “a single monopoly that monopolizes one level of production and creates a potential to extend the monopoly to others.” As argued above, such rule is justified by policy reasons. Although one of the main costs of such rule is that it may reduce diversity, a competing distributor may still have incentives to grant access to its distribution network to smaller firms that cannot support one on their own. The Israeli case can instead be read as an attempt to use the refusal to deal prohibition in order to break oligopolistic coordination between a small number of competitors to exclude other rivals from their market.

A different rule should apply where the monopolist’s product is essential for some customers but not for other customers, and the two groups do not compete with each other. In such situations the essentiality requirement should focus on the conditions in each market separately. The fact that the monopolist’s output is not essential for the commercial operation of one group does not and should not affect the commercial viability of customers in the other group. A different rule would allow a monopolist to refuse supply in order to eliminate its competitors from a most profitable vertically integrated market, in sharp contrast to the purpose of the refusal to supply prohibitions.

vi. Temporary Essentiality?

223 See Korah, supra, note 49 (The Oscar Bronner decision “limited the essential facilities further: it suggests that once there are two firms with such a facility, the doctrine ceases to supply.”)
224 Paddock, supra, note 194.
225 Ibid. p. 44.
226 Ibid. See also Flip Side Productions, Inc. v. JAM Productions, Ltd. 843 F. 2d 1024, 1032-4 (7th Cir., 1988) (The existence of three competing facilities means that none is an essential facility).
The EC *Aer Lingus*\(^{227}\) case, analyzed above, raises an intriguing question: Can essentiality be temporary or does the mere fact that essentiality ceases to exist after a time negate the basic presumption of essentiality. In most cases the fact that time will reduce entry barriers for a new competitor should negate the essentiality requirement. Compulsory supply should not be based on the mere fact that a new comer faces barriers to entry that result from the incumbent’s first-mover advantage. This would reduce significantly the long-term investment incentives of market participants. Yet in exceptional cases, recognition of temporary essentiality may be justified. This would be the case where unique market conditions create insuperable entry barriers that are likely to be reduced over time. The clearest case is where the inability of competitors to duplicate a facility results from government-created barriers that are to be reduced in the foreseeable future. Another possibility is where a new technology is evolving that will erode the natural monopoly position in the foreseeable future. The *Aer Lingus* case seems to fit in this category. There, consumers’ choice of airline was based, *inter alia*, on the number and flight schedule of flights provided by a each airline. British Midland could not provide, at once, a wide variety of flights due to regulatory restraints imposed by airport facilities. Still its variety of flights would increase as these regulatory restraints were reduced. Once its variety of flights was sufficient for an economic number of consumers to fly with it, compulsory interlining would no longer be required. The outcome should have been different if British Midland could have entered the market by providing a full line of flights but was not prepared to put in comparable effort. Otherwise, compulsory dealing would amount to a form of artificial assistance to a new entrant. This line of managed competition to reduce entry barriers faced by a new entrant is a significant broadening of the indispensability test, which is bound to be problematic since a new competitor will always face entry barriers resulting from the fact that the incumbent firm is already established in the market.\(^{228}\)

vii. **Equal treatment of existing and potential competitors**

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\(^{227}\) *Aer Lingus*, *supra*, note 159.

\(^{228}\) Ridyard, *supra*, note 29.
Although not specifically stated, all jurisdictions have been willing to take a more interventionist stance in defense of complaints from existing trading partners than when asked to invoke refusal to deal principles to open up new market opportunities. 229

Symmetric treatment of existing and potential trading parties is justified for the following reasons. One of the main potentials of the essential facility doctrine to affect market performance lies in its application as a tool to introduce new competition into the downstream market. 230 There is no economic justification for granting competitors advantages that are based on their time of entry into a market alone, apart from the ones naturally resulting from first-mover advantages. The only apparent reason for such a distinction is some theory of vested rights- a firm that has committed capital to the production of an end product utilizing a monopolized component or to the distribution of the monopolist's goods is entitled to continue in business at least until it has recovered its investment, or received compensation. 231 This theory is based on equity notions rather than competition policy. The previous dealings of a monopolist have no bearings on a monopolistic purpose, except where termination is part of a predatory strategy. 232

Similarly, there is no economic justification for asymmetric treatment of a situation in which the asset controller has not granted supply to any of its competitors and one in which it has granted supply to some competitors. Adoption of such a rule might easily lead to decisions by an asset controller not to admit any rival to its facility in fear that this will open the door to a host of supply demands from other potential competitors. Efficiency enhancing trades may therefore be discouraged by fear of competition law intervention. Although the remedy is usually much easier in a case where supply is granted to at least one competitor, this does not justify such differentiation.

viii. Equal Treatment of Joint Ventures v. Unilateral Refusals

229 Ibid, p. 449.
231 Areeda and Turner, supra, note 94, p. 729c.
232 Byars v. Bluff City News Co. 609 F. 2d 843 (6th Cir. 1979)("There exists no theoretical distinction between ordering a monopolist to deal with a former customer and ordering the monopolist to deal with anyone who comes along. Yet, as a practical matter it is far different to order the re-establishment of a ruptured relationship that to order a monopolist to deal with a stranger. The difficulty of setting reasonable terms, especially price, would be a substantial factor when confronted with the latter situation." p. 864).
Courts are most likely to impose a duty to deal where a combination of competitors controls an essential facility. Yet whether a facility is controlled by one or several controllers does not change the economic incentives and the competitive outcome of their control, and thus should not change the regulatory rules governing refusals to supply.

ix. Facilities and goods
The essential facility doctrine’s name implies that it applies only to facilities. However, there is no economic rationale for limiting the application of the principles governing compulsory supply to physical facilities. It should thus apply equally to any input that is essential for the creation of another good or service, including information.

III. Detailed Analysis of Alternative Remedies for Refusals to Supply

The desirability of applying competition laws to the regulation of trade terms of an essential facility is directly related to the adequacy of remedial tools at the competition court or the competition authority’s disposal to establish such trade terms. Even if competition courts or agencies can effectively determine what constitutes anti-competitive trade conditions, the remedial tools should also be appropriate. Competition law is bounded by the nature and competence of its legal institutions and processes. Thus, we now turn to a more detailed analysis of the legal remedies available to courts and competition authorities. Some of the remedies surveyed below may also apply where the natural monopolist is found to engage in other types of anti-competitive conduct.

a. Setting Efficient Supply Terms

Where compulsory supply is mandated, the regulator should set trade terms and conditions that prevent discrimination. Such terms should not blockade competitors from entering into the market, on the one hand, and not deprive the monopolist of its legal rights to enjoy profits obtained from its assets more than to the extent necessary, on the

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233 Gerber, supra, note 39, at p.1095.
other.\textsuperscript{234} Since pricing is not the only factor that must be supervised, courts must also be prepared to arbitrate highly technical disputes. Free negotiation is not a viable solution. Refusal to supply is itself equivalent to the asset controller setting a supply price that is prohibitively high.

The application of such remedies raises, however, great difficulties. Most importantly, the court is ill-suited to perform regulatory functions such as price setting that require industry-specific expertise and that exhibit a steep learning-curve.\textsuperscript{235} The setting of non discriminatory supply terms is an economically demanding task, which involves a multi-factual analysis.\textsuperscript{236} An overview of case law reveals a determination to side-step the thorny issue of supply terms.

A commonly favored solution is to require the facility to be made available to third party and in-house operators on non-discriminatory terms, but this scarcely provides a workable benchmark for supply terms. This option serves as a good approximation where the regulator can easily obtain accurate data on the real costs of providing supply to the vertically integrated arm or third parties, usually where there is genuine separation of decision-making between the upstream and the downstream operations of the monopolist, or where standard terms apply in the specific industry in which case a direct market analogue exists from which to derive the appropriate terms for the competing third

\textsuperscript{234} Clear, supra, note 83.
\textsuperscript{235} See Town of Concord v. Boston Edison Co., 915 F. 2d 17, 25-9 (1st Cir. 1990) cert. denied, 111 S. Ct. 1337 (1991)(Emphasizing the effectiveness of economic regulatory systems in curbing an integrated utility’s ability to execute an anti-competitive price squeeze against a distribution company). The New Zealand courts acknowledged this problem in Clear, ibid (The High Court stated that its decision “presupposes...a supplementary regulatory system”. The Privy council conceded that identifying the proper present value of capital investment and a proper rate of return as well as excess charges because of monopoly inefficiencies would be difficult and their assessment highly controversial. A regulatory body was necessary in order to perform these tasks). For a similar concern see also Justice Pincus at the first instance of the Australian Queensland Wire, supra, note 114 (“an order (regulating price) would burden the Court with a prohibitive administrative task...”)
\textsuperscript{236} The list of parameters on which access price to an essential facility must be set that is included in Section 44G of the Australian Trade Practices Act serves to illustrate the complexity of the issue. These parameters include: (a) the legitimate business interests of the provider, and the provider’s investment in the facility; (b) the public interest, including the public interest in having competition in markets; (c) the interests of all persons who have rights to use the service; (d) the direct costs of providing access to the service; (e) the value to the providers of extensions whose cost is borne by others; (f) the operational and technical requirements necessary for the safe and reliable operation of the facility; (g) the economically efficient operation of the facility. The Australian competition authority may take into account any other matters that it deems relevant. This open-ended shopping list of factors confers a broad discretion on the regulator and serves to demonstrate that clear policy objectives are difficult to establish.
party. Supply terms are also easy to set when existing supply terms are altered so as to improve the monopolist's competing arm's arrangements at the cost of increased inconvenience or costs to its competitor(s), and such change is not economically justified. However, in many circumstances the non-discrimination principle will not provide a full solution. If firms can cross-subsidize or have foreclosure incentives, the non-discrimination principle will not be easy to apply.

Where the supply prices should also be reasonable or should not be "excessive", as in Australia and in the EC, the regulator would also have to engage in a difficult analysis to determine which price formula best achieves the goals of competition policy. This issue is one of the most controversial issues in regulatory economics. Below we give only a flavor of the arguments.

One option is to allow the monopolist to charge its cost plus a specified profit which optimally provides a revenue stream that will remunerate the appropriate value of the asset. This option necessitates a finding of what cost base is most appropriate-the costs of the incumbent operator including any inefficiencies that may result from that operator's method of carrying on business, or an objective but necessarily theoretical competitive market-based cost or some other cost basis. It is also unclear what level of profit is reasonable for the monopolist to require. The proper asset value is problematic, especially in a natural monopoly context where the controller is free to exploit its market power to maximize profit without regulatory constraint. Another solution is the so-called "efficient component pricing" in which trade terms compensate the monopolist for the net loss of revenue caused by supplying third parties, so as to make the monopolist

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237 Such as in the EC Aer Lingus case where the court simply mandated Aer Lingus to apply the standard terms that govern inter-line deals in the industry. Aer Lingus, supra, note 159.
238 For example, in the EC case of Sealink, the defendant altered the times of its own car ferries' sailings, and this led to more frequent stopping of its competitors' loading activities. Sealink, supra, note 5.
239 Crucial to the High Court's reasoning in the New Zealand Clear case was the fact that it had to take the cost situation as it was and not evaluate whether the existing costs were "justifiable" or what they "should be": whether they contain monopoly rents or based on excess capacity or wasteful capacity or its operations are conducted in an inefficient manner. Clear, supra, note 83.
240 The EC Attorney General advocated the adoption of such an option in his Brief in Oscar Bronner, supra, note 42 ("When community law intervenes to require access, full compensation should be obtainable, not only for the capital invested, but also for a normal return having regard to the risk of the investment" Para. 64). This was acknowledged by the EC Court of First Instance in ENS, supra, note 207.
241 Ridyard, supra, note 29, p. 451
indifferent as to whether it shares its assets with competitors.\textsuperscript{242} This option does not eliminate the monopoly pricing problem,\textsuperscript{243} and it may also enshrine inefficiency.\textsuperscript{244} Some court have mandated compulsory supply at short run variable cost.\textsuperscript{245} While this option eliminates completely monopolistic rents, it has detrimental effects on dynamic incentives as it amounts to a complete confiscation of the asset value which may have been generated by the investment, effort or risk-taking of those who happened to have created something of commercial value.

Second, the newly established trade terms may necessitate careful on-going scrutiny. Such remedy would put the court in the position of controlling the asset controller’s contractual provisions, and would require constant adjustments to reflect changes in the costs of the controller. Consequently, the court would be cast in the role of a permanent regulator. As Areeda and Turner observe, “requiring a vertically integrated monopolist to deal with outsiders requires some mechanism for supervising and adjusting the price and other terms of dealing. No such mechanism is available to the antitrust court.”\textsuperscript{246}

Third, litigation costs alone may make any relief inefficient when sought by large numbers of small competitors. Since competition remedies apply only to the specific parties to a specific dispute, eliminating anti-competitive access terms would require all the competitors to have their day in court. This entails, of course, high costs due to the large number of suits that might be needed to remedy an industry-wide problem. Although class action suits can be initiated on behalf of all aggrieved parties, each party will still have to prove that it was afforded discriminatory terms. In some jurisdictions, a

\textsuperscript{242} This option, also known as the Baumol-Willig Rule, was adopted in the New Zealand Clear case. Clear, \textit{supra}, note 83.


\textsuperscript{245} See, for example, the British case of \textit{Southern Vectis} (There the former monopoly supplier of local bus services on the Isle of Wright (Vectis) refused to grant access to the bus station owned by it. Although the new entrant had build a bus station adjacent to Vectis’, the British regulator concluded that because of historical factors passengers are likely to assume that all available bus services start and end at the old bus station. As a result, it placed an obligation on Vectis to admit its competitors to the bus station. One of the problematic aspects of the decision involves the terms of access. The regulator insisted that the new entrant pay no more than a fair share of the operating costs of the upkeep of the facilities.) Ridyard, \textit{supra}, note 29.

competitor's inability to sue the monopolist in private litigation complicates things even further.

Fourth, since competition law litigation usually applies ex post, the monopolist's distortions might greatly affect the industry until the matter is finally resolved.

Fifth, the benefits of case-by-case analysis might be overwhelmed by anti-competitive strategic behavior on the part of those who currently control essential facilities. The lack of any clear-cut standards for deciding supply terms, the difficulties of applying even those theories that do exist, and the high costs of litigation would seem to facilitate such behavior on the part of the natural monopolist.

Given the above difficulties, the argument which suggests that the competition courts have sufficient tools to fashion appropriate remedies in essential facility cases should be rejected. An extreme solution is to not regulate supply terms, unless they are easily determinable. However, a solution that does not deal with market inefficiencies resulting from vertical integration stands to do great damage to the economy and thus should be rejected.

Another suggested solution is to delegate the remedial authority to regulatory bodies, where they exist, that are better equipped that the courts to perform the regulatory tasks involved in setting supply terms. U.S. courts have adopted a solution where liability disputes are settled by the courts while remedial issues are settled by direct regulators, where such regulators exist. As observed by Kovacic, this solution was a result of oversight deficiencies of traditional public utility regulation and robust confidence in the curative powers of antitrust law which manifested itself in transpositions of antitrust principles to highly idiosyncratic regulated industry environments. Nonetheless, courts have come to appreciate the shortcomings of antitrust litigation as an oversight and monitoring tool and realized the comparative institutional advantage of a direct regulator.247 A similar solution has been adopted in England.248

Such bifurcation of powers raises several fundamental problems which not only result in duplication of resources but could also jeopardize the regulatory task:

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247 Kovacic, supra, note 132, p.11.
248 The UK created a special regulatory agency that sets the prices for TV schedule information. Ridyard, supra, note 29.
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- Unification within a single body will serve to eliminate inconsistencies that may arise from the possible application of different criteria in the liability and remedial phases of the litigation, or from divergent assessments of the merits of arguments raised in the liability phase of the proceedings.
- Duplication of scrutiny might raise concerns regarding the fairness to the regulated entity of being subject to two independent proceedings in respect of the same matter.
- Bifurcation of powers creates a double standard, based on the issue of whether a firm is regulated or unregulated, which is external to the competition law context.

A suggested solution is to delegate the remedial power to the competition authorities (rather than the competition courts). This solution solves many of the problems inherent in regulation by the courts, and has already been adopted in Australia. Nonetheless, given the difficulties associated with such regulation, an important alternative solution is structural: to deintegrate industry segments in order to minimize incentives to discriminate. Although separation involves non-trivial transaction costs, it might provide for a more efficient overall outcome. Sub-section iv below analyzes this option.

b. Sharing Principles

An important issue involves the principle governing the sharing of existing assets in order to accommodate new entry. If the asset controller is not required to share its asset in order to accommodate new entry it may abuse its power in order to discriminate in favor of its competitive arm. For example, it may block a new entrant at a critical time necessary to introduce a new product. But even if it is required to share its existing assets, the sharing principle is of importance in achieving an efficient result. Although there has been no sophisticated economic analysis of sharing principles of essential facilities, such analysis is crucial in order to determine their economic effects.

The efficiency of a sharing principle is determined, inter alia, by the nature of the asset to be shared. Some assets can support almost unlimited supply, such as interlining

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249 See Section 4.2 supra.
not fully used or if by its nature capacity is unlimited, compulsory supply poses no immediate dilemmas with regard to the sharing of the existing facilities. Other assets have physical or other constraints which limit the number of their users. For example, airport landing or takeoff slots, narrow harbor docking slots and existing gas pipelines can only support a limited number of users. It may also be that some capacity is more valuable than other. For example, some landing and takeoff slots are more convenient to most passengers than others. Supply constraints may also result from the monopolist’s decision to limit its production and supply to a given quantity or a given number of customers. Where supply is limited, an important issue involves the sharing of the asset—which firm is granted supply under supply constraints, assuming such access is essential in order to compete in the market.

U.S. courts have adopted, for example, the first-come first-served principle. Under this rule, the asset controller is not required to share its assets if such sharing would be impractical or would inhibit the controller’s ability to serve its customers adequately, nor is it required to proportion the use of its facilities when operating at full capacity. Rather, courts have considered the provision of access to the competitor as not feasible and the monopolist’s refusal a sound business justification. However, the asset controller is required to share its facilities on a non-discriminatory basis if no capacity constraints exist and as long as such sharing does not alter its ability to serve its customers adequately. This sharing rule creates incentives and opportunities for its abuse by a monopolist. Assume, for example, a scenario where the capacity constraints of existing assets allow only the monopolist’s competitive affiliates to operate in the market. A monopolist might use the power not to expand its capacity in order to drive out its competitors. Also, if the monopolist can extend its assets at any point in time it wishes, and the monopolist has incentives to exploit its monopoly power in a vertically related market, it will avoid expanding its facilities at critical times when more efficient competitors seek to enter the market and will expand the asset only when its own

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250 Werden, supra, note 113, p. 457. Of course, if full capacity is being used by the incumbent, it is necessary to take a close look at its activities to verify whether he is, in fact, using all the capacity or capacity is not in fact being efficiently used, or other steps have been taken primarily in order to render the facility unavailable to new users.

251 See, for example, City of Anaheim v. Southern California Edison Co., 955 F. 2d 1373 (9th Cir. 1992).
competitive arm will be the first in line for supply. It may also enter into long-term contracts that will use the entire capacity of the asset. Thus, the first-come-first-served principle may not enable more efficient competitors to replace existing ones if the monopolist has incentives to foreclose the market to an efficient competitor. Also, where some capacity is more valuable than other (for example, differently timed landing slots at airports and harbors) and the monopolist is prohibited from price discriminating among such capacity, it will have no incentive to share the most profitable slots with its most efficient competitors where the average price it sets is not high enough to capture all the monopoly profits to be had from utilizing these slots.

In jurisdictions in which the monopolist is prohibited from charging monopoly rates the first-come first-served principle may also impede the replacement of existing competitors with more efficient ones even if the monopolist has no incentives to do so. Where the monopolist is not limited in its pricing decisions, it will set the price at such a level that only the most efficient competitors could pay it and still remain profitable. The market’s natural selection mechanism will ensure productive efficiency. But where the price set by the monopolist does not reflect what the market can bear, incumbent competitors will have no reason to exit the market and free capacity on the essential asset since they could still operate profitably. To be sure, if transaction costs are low, then more efficient operators will “buy their way” into the market, but their incentives to do so are reduced by the extent of the necessary transaction costs.

Epstein has argued for the adoption of a proportioning rule which will distribute the monopolized asset between all potential users, much like the common law rule imposed on common carriers. He argues that such proportioning rule should work well from the point of view of overall consumer satisfaction, and he uses the common law State ex Rel. Wood v. Consumers’ Gas Trust Co. case to exemplify his point. There, a natural gas company was placed under a strict obligation to supply service to a new customer along its route notwithstanding unavoidable shortfalls in supply. The court’s basic rationale was that “there can be no such thing as priority or superiority of right among those who possess the right in common.” Building on this case, Epstein argues

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252 Epstein, supra, note 73, p. 431.
253 61 N.E. 674, 677 (1901).
that it is better to enable all residents to warm their house to a low temperature than to enable only the existing customers to heat their house to the full extent and let all others freeze.

Some EC cases also adopt a proportionality sharing principle. In *SeaLink*,254 for example, the incumbent monopolist was required to change its ferry landing schedule in order to accommodate a new competitor. In another decision involving *Sealink*,255 the natural monopolist port owner was not allowed to alter existing landing schedules if by so doing it harmed the consumers of a competing ferry service. Similarly, a European Regulation regulates the access of new airlines to congested airports by allocating some proportion of takeoff and landing slots at times of congestion to newly scheduled flights.256 These sharing principles are much different from those adopted in the U.S. In the U.S. once a monopolist uses the most profitable slots for its own competitive arm it is under no obligation to accommodate a new entrant seeking access to these slots, since this will create a reduction of service to its customers. In the EC, on the other hand, the court balances the different options available and may require the asset controller to make changes in its existing modes of operation in order to accommodate new entry. Similarly, the monopolist is not entitled to improve its service to its customers if there is a corresponding reduction in the quality of the service offered by its downstream competitors.257 However, EC courts do not analyze the net effects of the required sharing on welfare. The monopolist will be prevented from altering its existing sharing arrangement even if by increasing the quality and quantity of its own service the monopolist’s competitive arm will be more efficient.

While the proportionality rule has some appeal, the rule does not necessarily increase welfare, and may even reduce it. First, if all the firms involved were required to reduce their operations sufficiently to let another competitor provide the same kind of product or service, then their total costs might increase if scale economies are present. In many situations it may well be that the natural monopoly’s customers can operate

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254 *SeaLink, supra*, note 5.
257 *Lang, supra*, note 82, p. 277.
economically only if some minimal capacity is granted to them, and thus by granting all customers a lower capacity all will be worse off. Take, for example, a situation where the capacity is megabytes of a computer, and several users are hooked to the same computer. If all need a minimum number of bytes in order to operate a certain program, then all will be worse off if, in order to meet its proportionality obligation, the natural monopoly will grant each customer a number of bytes which is below such minimum. This example can be easily carried over into other fields. A ferry operator needs a minimum number of landing slots in order to operate its business efficiently. Incumbents should not be required to scale down or reorganize their existing activities unless an identifiable increase in welfare can be expected as a result. This problem is partly solved where the monopolist is allowed to charge customers a supra-competitive price for utilizing its assets, since the price of supply set by the monopolist enables natural selection of the most efficient competitors. If the monopolist is price regulated (as in the EC and under common law doctrines), the proportionality test may reduce efficiency by enabling inefficient entrants to enter the market and increase total costs for all users. But even if the monopolist is not price regulated, the proportionality principle will create inefficiency where the monopolist is not allowed to price discriminate among customers and some capacity is more valuable than other. The proportionality rule would enable inefficient competitors to share the most valuable capacity if the price set by the monopolist does not capture all of the monopoly rents from high valued capacity.

Second, if the existing capacity is already fully utilized by several efficient competitors, there would be little or no increase in competition, and thus costs would not necessarily be reduced for products. Third, such a rule would not ensure existing customers of the constancy of their supply since as more firms enter the market, each firm will be granted a smaller portion of overall output. This fact might have negative domino implications for industries and customers that rely on the continuing and constant supply of the monopolist's widgets or on gadgets supplied by firms utilizing the monopolist's widgets. This, in turn, could lead to costly investments in the duplication of a natural monopoly facility, or to costly use of alternative widgets (for example, where two technologies are available in order to produce a given widget, one that is more efficient which utilizes an input supplied by a monopolist and another, more costly,
efficient which utilizes an input supplied by a monopolist and another, more costly, utilizing an input that is supplied by a competitive industry). Furthermore, the monopolist’s competitive arm will have a comparative advantage over its rivals based on its access to information regarding the possibility and probability of reduction in supply. Fourth, the proportionality rule does not always allow a monopolist to enlarge the scale of its activities, even if so doing would reduce its own costs.

Fifth, from an administrative point of view, such a rule would require the court to get involved in the day-to-day operations of the natural monopolist to ensure that the proportionality principle is observed in practice. Sixth, it would reduce the incentives of firms to become natural monopolists. It should also be noted that the analogy between the supply of a life-saving device (heat) and business inputs used by Epstein is misleading in that moral considerations are usually absent from business transactions. Accordingly, a strict proportionality rule should be rejected.

A more efficient sharing principle, assuming that a monopolist has incentives to foreclose a vertically related market, would focus on the welfare effects of altering an existing sharing pattern. The monopolist would be required to accommodate a new entrant or to share its most profitable slots only if this would increase welfare, either by reducing prices or by introducing better quality products. Similarly, a monopolist should be entitled to expand its own operations at the expense of existing competitors if welfare is increased. No sharing should be required if its only effect is distributive or if it reduces welfare.

c. Mandatory Expansion of Existing Facilities

An important and related issue involves the expansion of existing assets in order to accommodate new entry. If the monopolist is not required to take positive steps in order to accommodate new entry it might use this power as a strategic device in order to reap supra-competitive profits (where it is not vertically integrated) or in order to discriminate in favor of its competitive arm (where it is vertically integrated). The monopolist’s incentives to expand its asset’s capacity parallel its incentives to foreclose a competitive market.
In the U.S., for example, a monopolist is free to refuse to deal with competitors on account of limited capacity. A legitimate business justification is recognized where existing capacity is incapable of serving all the existing and potential customers and serving them would require the monopolist to incur additional costs in expanding its facilities. A monopolist is not required to expand its facilities even if such expansion is needed in order to allow its rivals to enter, survive or expand in the market.258 Once such justification is proven, there is no balancing of the social gains from refusing to deal or cooperate with rivals against the losses resulting from the refusal. The effect of such a rule on potential competition may be compounded by some of the sharing principles surveyed above.

A similar approach has been adopted in many other jurisdictions. For example, while the Canadian abuse of dominance provision might be interpreted as imposing certain affirmative duties to provide access to essential facilities, courts are reluctant to mandate a monopolist to invest private capital in additional facilities.259

The reluctance of courts to require mandatory expansion might enable a monopolist to strategically manipulate the capacity of its facilities in order to create an anti-competitive advantage to its competitive affiliate. Take, for example, a scenario where the capacity constraints of an existing facility allow it to serve only the monopolist’s affiliates. A monopolist might use the right not to expand its facilities in order to drive out efficient competitors. Alternatively, the monopolist might expand the capacity of its assets at times where its most efficient competitors could not enter the market.

One method to solve this problem is to mandate the monopolist to expand its assets in order to accommodate its competitors. A legitimate precondition for such expansion is that the competitor(s) requiring expansion provide sufficient guarantees that they will cover the costs of the expansion minus any benefits it might confer on the monopolist by way of lowering average total costs. To be sure, the situation is still open to manipulation by the monopolist by way of charging its competitor a prohibitively high

cost for the expansion unless the court monitors the costs and the construction activities of the monopolist. However, the monitoring issues, once the price and the major contractual parameters are set, might not be very different from the monitoring of any other contract said to be breached by a constructor.

Another problem associated with mandatory expansion involves its effects on the long-term dynamic incentives of firms to invest in or to create natural monopolies. Once we recognize the natural monopolist's right to charge supra-competitive prices, this necessarily implies restricted output. If the monopolist is legally required to increase its output in order to accommodate its competitors, especially if the monopolist is not allowed to price-discriminate between competitors, this might imply that the overall price the monopolist might charge for its product or service will decline. This is especially true if the monopolist can only expand its capacity by adding large increments of output. One solution to this problem is to require the new customers to pay the monopolist for the difference in revenues before and after the expansion, unless such revenues were the result of anti-competitive foreclosure. In other words, an important condition in requiring the monopolist to expand its facilities is that its revenues from controlling the assets do not decrease, not taking into account revenues from anti-competitive foreclosure. However, this will reduce significantly the effectiveness of mandatory supply. Another solution is to mandate expansion as long as it does not reduce significantly the dynamic incentives of firms, in that it still enables monopolists to reap supra-competitive prices.

iv. Structural Solutions- Break up of Ownership

Structural solutions can often be most effective in regulating the incentives of market players to operate efficiently. By altering the existing structure of a market or by preventing the creation of a proposed market structure, structural solutions often solve the core of the problem. In the case of natural monopolies such remedies do not achieve efficient results, since a natural monopoly is the most efficient market structure. Break up

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This resembles the fourth proposed remedy in Guido Calabresi and Douglas Melamed, “Another View of the Cathedral: Property Rules, Liability Rules andd Inalienability” (1972) 85 Harv. L. Rev. 1089.
of ownership may nonetheless be efficient where an essential facility is created by singular control of all potentially competing assets.

v. Vertical Deintegration or Preventing Integration
Where a natural monopolist has incentives to leverage its monopoly power into competitive segments, an important solution involves vertical deintegration of the natural monopoly from competitive segments or prohibiting the monopolist from integrating into downstream or upstream vertically related markets. Under full divestiture the natural monopolist has much weaker incentives or opportunities to leverage its monopoly power. Nonetheless, separation is efficient only if the transaction costs resulting from deintegration of industry activities are lower than the costs imposed by the regulatory burden of ensuring that vertical integration does not impede efficient competition. It also alters, to a large degree, the property rights of the natural monopolist and thus should be carefully analyzed. Only where limiting conditions to the single monopoly profit theory are present courts should, in fact, engage in a serious evaluation of the costs and benefits of the proposed deintegration.

vi. Joint Ownership

An interesting and relatively unexplored venue for regulating natural monopolies involves the joint ownership of its facilities by all competing downstream or upstream firms and the sharing of its dividends in accordance to use.261 Under this structural solution, production or service is unified and centralized in order to achieve scale economies, but ownership is decentralized between multiple owners who compete with each other in marketing the products or services produced from the common facilities or

261 The idea was first developed at the Antitrust Division of the United States Department of Justice, and first proposed by the Division in 1976 as a solution to the competitive problems posed by the large economies of scale present in large deepwater ports that were to be constructed off the shores of Louisiana and Texas to offload crude oil from very large crude oil carriers that could not enter the U.S. ports (Report of the Attorney General pursuant to Section 7 of the Deepwater Port Act 1974 on the application of LOOP, Inc. And Seadock, Inc. For Deepwater Port for licenses, Nov. 5, 1976) and was and first analyzed by Lucinda M. Lewis and Robert J. Reynolds, “Appraising Alternatives to Regulation for Natural Monopolies” in Edward J. Mitchell (ed.) Oil Pipelines and Public Policy (Washington D.C.: American Enterprise Institute for Public Policy Research, 1979), 135.
in producing products or services which utilize the service or the product of the common facilities. Joint ownership, if properly structured, solves the problem of foreclosure by granting all competitors jointly the power to determine the terms of supply. It also solves the resource misallocation problem since the owners of the facility/product are also its users. Research and development to break the natural monopoly can also be induced if common ownership rules require a share of the profits to be invested in such activity and if competing firms have a chance of making higher profits once competing technologies are introduced. It can also be induced by granting the original facility owner a larger share in the profits, while equal power to other owners to determine the terms of access of other firms.262

As Warren-Boulton and Woodburt have argued, for joint ownership to be effective certain requirements have to be met.263 First, ownership should be open to all the customers of the facility. Open membership ensures that the natural monopoly would be available to all actual or potential users. Second, each owner must independently market the products or services provided from its share of the joint venture natural monopoly. This may require specific constraints on certain kinds of information transfers between the owners. In order to reduce the risk of collusion the facility should be managed by a separate operating company with separate management, controlled by a board of directors elected by the owners. Third, the operation of the joint facility should be subject to rules whose basic aim is to induce competition among the owners-users in a manner that reduces the natural monopolist’s exercise of market power by charging supra-competitive prices or by discriminating among competitors. Most importantly, each firm’s ownership share should reflect its share in the output of the joint venture. This rule is necessary in order to minimize the strategic exercise of control by the owners. The higher the ownership share, the lower the private cost of using the facility. On the other hand, the higher the share, the greater the incentive to maintain a resale price above the private marginal cost. If all owners assume Cournot behavior, these two forces cancel

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263 Ibid.
out, so that all owners, regardless of their share, will set the joint-profit maximizing price for their share of the joint venture's output.

An important issue is whether such joint venture might adversely affect the pace of innovation. Boulton and Woodburt argue that the joint venture structure affects innovation to a very low extent.\(^{264}\) Their argument explores three types of innovations. The first type, learning-by-doing, the process by which the firm's employees and managers learn how to produce a product better or more cheaply during the production process, is unlikely to be affected by the joint ownership. The attainment of learning-by-doing savings does not require prior expenditure or approval of owners, such that opportunities for strategic positioning or bargaining over cost and profit distribution are not likely to arise. Yet the fact that the benefit from increasing output now lowers costs in the future might create an externality problem. The problem is that if the joint venture charges each owner the current accounting marginal cost during the period that the joint venture is sliding down its experience curve, each firm will be charged a price that overstates the true opportunity marginal cost to the combined venture. As a result, each owner may attempt to free ride by under-utilizing capacity during the initial period and wait for the other firms' output to drive costs down. One solution to this problem is to charge only the estimated true opportunity marginal cost. The difference between accounting and true marginal cost would then be levied on each owner in proportion to their capacity, similar to the payment of fixed costs. In this way, the incentive of each owner to fully utilize capacity is maximized.

The second type of innovation, process innovation, is a technical change that reduces the cost of production, but does not change the quality or character of the product. Process innovation can take place either within the joint venture or by outside firms, including the joint venture's owners. For process innovation to take place within the joint venture, some rule must be devised for the financing of research and development, since centralized decision-making on the process may result in socially sub-optimal level of process innovation. The joint venture might encounter strategic manipulation problems if the process innovation is developed in some other facility operated by one or more owners which operate similar facilities elsewhere. Transferring

\(^{264}\) *Ibid*, p. 12-3
such technology into the joint venture will be efficient. Compensating the innovating owner might, however, be open to opportunistic behaviour: an innovator who also has a majority stake in the joint venture might try to charge more than the process is worth and exploit the minority owners. This problem can possibly be overcome by devising an explicit mechanism for resolving disputes, such as third party arbitration, if the joint venture’s management could not be trusted to bargain in good faith with owners. Although such mechanisms might involve greater transaction costs than a unified entity because of the disputes between owners as to the appropriate transfer price, the long-term relationship of the owners might result in less strategic posturing and therefore lower costs of dispute resolution.265

The profitability of the third type of innovation, product innovation, is least dependent on the ownership configuration of the production stage, since both the production and application of product innovations can be carried out independently. Much product innovation is a response to downstream interaction with customers. Thus, most product innovation would most likely be carried out by the owners. Moreover, product innovation can be implemented independently and exclusively by each owner even within the joint venture. The owner can simply assume the fixed costs of modifying or extending the production line and pay any additional variable costs, as well as the externality costs of shortened product lines to other owners. If the technology can also be used to reduce costs for the production runs of other owners, then it would be both privately and socially profitable for the innovating firm to license the technology to the joint venture.266

The joint ownership remedy is novel and has not as of yet been suggested or adopted by competition authorities anywhere. Yet it does not go much further than remedies that have already been granted by U.S. courts. The U.S. Terminal Railroad case267 can be read as mandating a quasi-structural remedy of joint control. There, the U.S. Supreme Court mandated the association controlling the facility to permit all railroads to share the ownership of the assets on equal terms as existing owners.

267 Terminal Railroad, supra, note 76.
Associated Press\textsuperscript{268} can also be read as granting a competitor an equitable share in an association. There, the court required the association, a news gathering agency, to admit to the association new members on terms that did not discriminate against them when compared to existing members.

While it is true that these two cases already involved associations of owners, requiring a single monopoly to give or sell an equity interest in itself to actual or would-be competitors does not go much further. To be sure, such a remedy would be harder to formulate in unilateral monopoly cases. In association cases the remedy is easily administratorable by requiring the admission of rivals on the same terms as existing members. In unilateral monopoly cases the court would have to determine the terms of control of the facility and the payment for the equity share in the facility. The question is how difficult it is to formulate such rules. If it is a one-time remedy that can be formulated by using pre-determined guidelines then it might well be worth the effort. While it is true that such remedy violates the property rights of a monopolist in its facilities, one can argue that it does not violate such rights more than access to an association does. The fact that a facility is owned by one, two or a hundred owners does not reduce the strength and the validity of the property rights to such a facility. The two cases are analogous in this respect.

Joint ownership of essential facilities has been applied in some cases with regard to electricity transmission and distribution wires, which clearly fulfill the conditions of natural monopoly. For instance, in New Zealand the transmission wires and central dispatch center were constituted as TransPower, a privately operated company jointly owned by the generation and distribution companies. This ensures that all generation and distribution entities, whether existing or new, would have nondiscriminatory access to the services of TransPower.

The joint venture proposal solves the dilemma between market power and efficiency issues. While leaving unchanged the number of independent competitors, it still retains the productive efficiencies of large scale. By so doing it offers competition.

\textsuperscript{268} See also United States v. Realty Multi-List Inc., 629 F. 2d 1351 (5th Cir. 1980)(defendant association of real estate brokers controlled a unique national real estate multiple-listing service found liable on the basis of refusal to give nonmembers access to their listings books).
authorities a new and innovative tool to bridge the horns of the market-power-efficiency dilemma. Yet joint ownership is a limited remedy. It can only be applied if the number of existing and potential owners is sufficiently low as to enable them to affect the supply policy of the natural monopoly. In addition, it may be difficult to detect and deal with coordination between competitors that extend beyond the specific venture. It is also an extreme remedy given that it interferes with the property right of the monopolist. It may also be the case that adding members will reduce efficiency if the facility has reached an optimal size. Thus, it should be used only in appropriate cases.

5.3.6 Regulation of Entry into the Natural Monopolist's domain?

An important issue is whether entry of potential market participants into the natural monopolist's domain should be limited. Should the competition authorities assess whether the potential new entrant promises long-term economic efficiency by lower-cost or higher quality, or should free entry be allowed? In Britain, for example, entry into electricity distribution is not permitted, in order to retain the benefits of non-duplication of the natural monopoly network.269

Two main arguments may be raised against absolutely free entry.270 First, free entry should not be allowed where it will result in wasteful or destructive competition. One possible explanation for such competition is that through ignorance promoters of a rival project may have over-estimated the profits, present or prospective, of the incumbent. A second argument against unrestricted entry is that there are circumstances in which a natural monopoly may only temporarily be unsustainable. To be sustainable a natural monopoly must be 'strong', that is, its units costs must fall as its output increases. A natural monopoly is 'weak' where it has exhausted its economies of scale and scope, so that its marginal costs are rising over a range of outputs. However, some of these economies can be expanded, so as to strengthen the natural monopoly again. Yet this may provide a period during which a smaller-scale operation may enter at lower unit price.

269 See, for example, Foster, supra, note 3.
Although the above arguments may have some merit, for a regulatory body to prevent investments in the natural monopoly segment is to imply that its forecasting ability is better than that of those who are willing to risk their own resources. The regulator has limited ability to perform this task efficiently. Moreover, restricting entry will tend to keep in place old, obsolete investments and discourage innovation. The single-firm monopolist, even if a highly effective innovator, is unlikely to be able to perceive or vigorously exploit all fruitful lines of innovation. This is especially true where the monopoly is protected by law. This is not to deny that even a monopoly supplier might have an incentive to make the most economical use of the lowest-cost technology. But the motivations of a monopolist with heavy investment in old technologies are inevitably mixed, particularly when the new technology is less capital-intensive than the old or the investment in old technology has been depreciated at an economically low rate. Thus, in most cases the competition authorities should not regulate entry into the natural monopoly segments but rather let market forces take their course. The competition authorities should, nonetheless, ensure that market conditions allow for potential entrants to make decisions based on the real conditions of the market. For example, artificial barriers to entry into the market should be eliminated.

5.4 Conclusion

Natural monopolies pose major dilemmas for competition policy. Their special characteristics necessitate the adoption of distinctive rules framed especially to deal with these characteristics. The fact that a monopoly is the most efficient market structure and that market forces have restricted ability to regulate the conduct of natural monopolies implies that outside control may be justified. This chapter has analyzed the regulatory tools available to competition authorities to regulate natural monopolies, in addition to the rules that regulate the activities of all monopolies alike. In fact, the essential facilities doctrine, adopted in many jurisdictions, applies stricter conduct rules to natural monopolies than to other monopolies. However, as the discussion in this chapter serves to

271 Ibid, p. 149.
demonstrate, the doctrine, in its current form, does not necessarily achieve efficiency. Several methods to increase the doctrine's efficiency were suggested.

In addition, several economies, including Australia and New Zealand, have applied a set of different rules to natural monopolies that come under the scope of the competition laws. These rules vest significant regulatory powers on the competition authorities, given that the traditional model of competition laws and competition courts are ill-equipped to provide such regulation. While only time will tell whether this new direction will achieve efficient outcomes, it is important to set clearly and unambiguously all the parameters of such regulation, as this chapter has done.
Chapter 6: The Regulation of Oligopoly Conduct

6.1 Introduction

Oligopoly markets create some of the most important competition policy dilemmas for small economies. Due to limited market demand and high entry barriers, many markets in a small economy are oligopolistic.\(^1\) Oligopoly market structures are characterized by rivalry among a small number of competitors in which no firm holds a dominant position.\(^2\) Rational behavior in such markets requires that each oligopolist take into account the effects of his actions on his rivals (and vice versa) in his decision-making process. Interdependence between rival firms is thus inevitable. This inherent characteristic of oligopolies may reduce or eliminate competitive pressures by creating incentives for firms to coordinate their conduct. By avoiding competition among themselves, oligopolists can attain shared market power which may allow them to maintain prices above the competitive level. Depending on the existing market conditions, the level of interaction among oligopolists may vary from fierce rivalry through conscious parallelism (the unilateral decisions of oligopolists which simply take into account the mutual interdependence that exists in the market) to cooperative agreements, including cartels or joint ventures.

Market forces have limited ability to regulate many oligopolistic markets in small economies. Not only are concentrated market structures commonly justified by production efficiency considerations, but the smallness of the market may also create additional high entry barriers which secure oligopolistic market positions even further.\(^3\) While international trade can help reduce problems of domestic oligopolies by introducing new and significant sources of competition into formerly highly

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\(^1\) See Chapter 1 supra. To give here but one example, in Canada 92% of the five-digit standard classification commodities in manufacturing are produced in industries where the leading four (or fewer) firms account for 60% or more of total sales. 82% of these commodities are produced by four or fewer firms which account for 80% or more of total industry sales. Shyam Khemani, "The Extent and Evolution of Competition in the Canadian Economy" in Donald McFetridge (ed.) Canadian Industry in Transition (Toronto: University of Toronto Press, 1986).

\(^2\) Monopoly and oligopoly markets were nicely distinguished by the EEC Court of Justice in Hoffman La Roche: "A dominant position must also be distinguished from parallel courses of conduct which are peculiar to oligopolies in that in an oligopoly the courses of conduct interact, while in the case of an undertaking occupying a dominant position the conduct of the undertaking which derives profits from that position is to a great extent determined unilaterally." Hoffmann-La Roche v. Commission, 1979 E.C.R. 461 [1978-9 Transfer Binder] Comm. Mkt. Rep. (CCH) 8527, at 7543.

\(^3\) See Chapter 1 supra.
oligopolistic industries, the penetration of foreign imports has limited effect on some industries.\textsuperscript{4} As suggested in Chapter 2 above, oligopolistic structures may tend to limit the entry of foreign firms unless such firms have a marked cost advantage over domestic ones and they succeed in overcoming additional hurdles to competition. Regulation thus plays an important role in bringing about more competitive outcomes in oligopolistic markets.

Regulation of oligopoly markets raises important issues for competition policy. Most importantly, equitable and practical obstacles limit the ability of the competition authorities and courts to regulate conscious parallelism by traditional methods. It is widely believed that conscious parallelism cannot usually be remedied without direct price regulation or structural reorganization of the market that would reduce the market shares of the leading firms. Price regulation in highly concentrated markets is a problematic remedy given its high costs and the high levels of uncertainty it creates. Structural reorganization is commonly impractical and inefficient in small economies, given that it would normally entail substantial efficiency losses where oligopolies are secured by minimum efficient scales of operation. Most jurisdictions, therefore, do not regulate mere parallel conduct, but require an agreement among firms to collude, on which to base a prohibition. However, as it is extremely difficult to distinguish between unilateral actions on which conscious parallelism is based and collusion, traditional competition law prohibitions may be difficult to rely on to regulate tacit agreements among oligopolists. Small economies should thus seek alternative ways to overcome these regulatory hurdles.

Coordination and cooperation among oligopolists is not, however, always welfare reducing. Some forms of cooperation, such as joint ventures for cooperative production, distribution or research and development functions and specialization agreements may have overall pro-competitive effects that offset the potential anti-competitive effects resulting from cooperation amongst potential rivals. Allowing firms to participate in such arrangements is important for small economies, as they may be the only or the most efficient method for domestic firms to achieve lowest costs or to increase dynamic efficiency. It is thus highly important to regulate these arrangements efficiently, by prohibiting those that have overall anti-competitive effects and allowing those that may enhance welfare.

\textsuperscript{4} For a detailed analysis see Chapter 2 \textit{supra}. 
The rest of this chapter is organized in two main parts. The first part lays the foundation for the legal discussion by surveying the special economic characteristics of oligopolistic markets and by focusing especially on the conditions that widely exist in small economies and enable firms to coordinate their conduct. The second part analyzes the competition policy tools that are available to combat such conduct. Traditional approaches for regulating oligopolistic industries will be analyzed as well as novel methods. In particular, focus will be given to two main remedies. The first is the regulation of practices that facilitate coordination among oligopolists and do not have offsetting social virtues. The second involves government support of a maverick firm in order to induce all other firms to reduce allocative as well as productive inefficiency. The latter is a novel and creative remedy, which poses some intriguing issues which will be addressed.

6.2 The Special Economic Characteristics of Oligopoly Industries

6.2.1 General
Oligopoly means few sellers. The main economic characteristic of oligopolistic markets is that each firm's decisions have a noticeable impact on the market and on its rivals. Though each firm may independently decide its strategic decisions, any rational decision must take into account the anticipated reaction of its rival firms to its decisions. As Shapiro states, "the hallmark of oligopoly is the presence of strategic interactions among rival firms." An oligopolist's decisions may thus be interdependent though arrived at independently. Such mutual interdependence may forestall rivalrous conduct.

Economic theory on the relationship between oligopolistic market structure and economic performance is dominated by complex game theoretic models that rely heavily on sensitive basic assumptions which focus on the institutional arrangements that are conducive to relatively collusive conduct. These models do not yield a single economic theory of oligopoly, but are highly context-specific and create a wide range of equilibria ranging from those that approximate competitive conditions to those

which approximate monopolistic conditions, depending on the oligopolist’s ability to coordinate their conduct.\(^6\)

Oligopolists can coordinate their conduct in three major ways. First, they can form an agreement. Such an agreement can be overt or covert, verbal or tacit. Agreements among potential rivals may have anti-competitive, neutral or overall pro-competitive effects, depending on the agreed conduct and the existing market conditions. Second, conduct can be coordinated through mere recognition of oligopolistic interdependence, by means of pure conscious parallelism. The third method consists of conscious parallelism with some facilitating practices. Such practices make it possible for oligopolists to overcome the forces that predispose them to behave competitively and allow them to coordinate their conduct sufficiently well to achieve non-competitive outcomes.\(^7\) The next sub-sections follow these three categories, although it treats separately collusive and potentially pro-competitive agreements.

6.2.2 Express or Tacit Collusive Agreements

A. General

Collusion is the joint determination of output, prices or other terms of trade by ostensibly independent firms in order to elevate their profits. The colluding firms agree on trade terms in light of the costs and returns from tailoring such terms to the diversity of transactions, the elasticity of demand, and the conditions of entry.\(^8\)

Collusion may take numerous forms, including price fixing, bid rigging, geographic or product market allocation, and customer allocation.

Collusion can be express or tacit. Tacit collusion is a form of collusion that is communicated by informal or non-verbal means without any direct, explicit communication between the parties. The adjective tacit is therefore used to denote the way in which the agreement was arrived at.\(^9\) Tacit agreements are less likely to produce detailed agreements covering many variables, and are thus less effectual than

\(^6\) Shapiro, \textit{ibid}.


\(^8\) George Stigler, “A Theory of Oligopoly” (1964) \textit{72 J. of Political Econ.} 44, at p. 45.

express collusion. Nonetheless, in highly concentrated markets firms may not need verbal communication in order to achieve collusive outcomes.

Collusion is driven by the opportunity for firms in an oligopolistic industry to elevate profits above the competitive level. The Vitamin Cartel serves as a prominent recent example of a successful international cartel. The largest world-wide vitamin producers colluded to rig bids and divide up worldwide markets for vitamins. Overall, it is believed that the cartel boosted the price of more than 5 billion U.S.$ in products sold in the U.S. alone. A recent settlement imposed high monetary fines and jail sentences for some top executives.10

B. Three hurdles to collusion
The colluding scheme is not a stable one. Rather, it creates a basic tension between competition and cooperation. Although the oligopolists' fates are interdependent, their individual self-interests are not perfectly consonant. Any collusive agreement that is based on a joint profit-maximizing scheme is inherently plagued by the natural temptation of each cartel member to "cheat" by deviating from the joint scheme. Cheating can take many forms including secret rebates, reciprocity agreements in which the cartel member buys something back from the customer at a supra-competitive price, increased services, or selling perfect products as slightly damaged ones for better trade terms. Such conduct by numerous cartel members would erode the joint profits and eventually undermine the agreement. The joint profit maximizing point is thus not an equilibrium, but rather a modus vivendi.11

A successful collusive scheme must therefore overcome three main hurdles: reaching a joint-maximizing agreement, detecting deviations from the agreed-upon

10 Star Ledger, "Roche Socked in Vitamin Price Fix", May 21, 1999, pages 1 and 22. Although the Vitamin cartel had, most likely, imposed high prices on many small economies, such economies face different incentives than larger ones in deciding whether or not to bring suit against such a cartel. Most importantly, cartel members may find it more profitable to exit the small jurisdiction rather than to endure the imposed sanctions. As the small economy may rely on imports of cartel members, it will not be in its interest to impose such sanctions. An exception arises where domestic demand of the specific product in the small economy is sufficiently large to create incentives for compliance. Canada, for example brought suit against the cartel members and it fined La Roche 50 million Canadian dollars. Also, the resources necessary to bring such a suit in a small economy will, most likely, constitute a larger proportion of the harm suffered than in a larger economy, assuming the costs of bringing such a suit in both jurisdictions is similar. At any rate, the U.S. might be acting here as an "enforcer for the world." For an extended discussion see Section 7.7 infra.
trade terms, and enforcement of the agreement by way of punishing such deviations.\textsuperscript{12} Reaching an agreement requires the establishment of a mutual understanding or consensus regarding the controlled trade terms. This involves resolution of any disagreement between firms as to the “correct” trade terms, and communication of the ultimate decision to all concerned parties. Express negotiation and communication are the most effective route for arriving at mutually acceptable trade terms. However, implicit verbal negotiation might also be possible.

The second task faced by colluding firms is the detection of significant deviations from the agreed-upon terms. The more slowly and incompletely deviations are detected, the weaker the collusion, as firms would have stronger incentives to cheat. Also, if market conditions are not conducive to exposing cheaters, colluders would have to incur substantial costs to detect cheating which may reduce the overall attractiveness of the agreement in the first place. The ease of cheating varies considerably with the type of market. Cheating is most difficult in markets where sales are large, infrequent, and results are publicly announced.\textsuperscript{13}

The success of oligopolists in supporting a collusive scheme is also dependent on the enforcement of the collusive agreement. Punishment of deviations must simultaneously make cheating unprofitable without causing public discovery of the cartel. One interesting insight is that anything that makes more competitive conduct more feasible or credible actually promotes collusion,\textsuperscript{14} as the very competitive conduct is reserved as a threat to punish those who undermine the collusive scheme. For example, where the colluding firms have excess capacity, it is more credible to threaten an overall increase in output that will reduce significantly prices for all colluders, including the defector.

The last two tasks promote mutual confidence that there will be adherence to the agreement reached. Detection and enforcement ensure a chain of events that the would-be price-cutter anticipates and he thereby resists the temptation to undercut prices. Once this is achieved, each firm has the confidence that its adherence to the consensus price will not create strong incentives for its rivals to deviate from it.

\textsuperscript{12} Alexis Jacquemin and Margaret Slade, “Cartels, Collusion and Horizontal Merger” in Schmalensee and Willig, \textit{ supra}, note 5, p. 415.

\textsuperscript{13} Scherer and Ross, \textit{ supra}, note 5, at p. 236-7.

\textsuperscript{14} Shapiro, \textit{ supra}, note 5, at p. 357.
Oligopoly theory may thus be seen as a problem of policing a collusive industry configuration, with the underlying characteristics of a prisoner's dilemma game.

C. Elements facilitating or complicating collusion

Certain factors, which are more or less exogenous to firms, increase or decrease the likelihood of collusion and other types of coordinated conduct. These factors influence the initial formation of an agreement, facilitate its coordination and enable it to survive temptations for chiseling. The relevant factors may vary within a market over time and some of them, such as entrepreneurial attitudes towards the engagement in illegal activity, are intrinsically variable. None of the factors are deterministic in their ability to facilitate coordination. Rather, they all reflect central tendencies subject to random deviations. In reality, a combination of market conditions will determine the likelihood of collusion.

The importance of these factors, from a legal perspective, lies in their ability to predict the conduct and performance of firms. For example, analysis of existing market conditions may serve to indicate situations which, absent a conspiratorial agreement that goes beyond mere interdependence, will most likely impede firms from attaining monopoly-like results through mere interdependence. In such cases, the presence of substantial non-competitive pricing would be evidence of traditional conspiracy.15

The facilitating factors are grouped into four broad categories: market structure variables, the nature of the product, the nature of sales, and the "personality" of the firms operating in the market. While most of these factors are industry or context specific, several structural elements are more commonplace in small economies, such as a small number of competitors, high entry barriers and high fixed costs. These factors will be reviewed more thoroughly.

I. Structural Factors

The number of competitors

The number of firms operating in the relevant market is one of the most important factors influencing the ability and incentives of firms to collude.\textsuperscript{16,17} The reason is three-fold. First, reaching an understanding among firms in the market to limit competition is easier and less costly if the number of firms accounting for a large proportion of total market output is small. If sufficiently few firms operate in the market, the mutual understandings of the business strategy which best maximizes the joint interests of all firms might even be accomplished without formal communication. Second, as Stigler demonstrated, the incentives to cheat increase as the number of firms increases. In general, the smaller any firm's market share, the greater its incentive to deviate from the consensus price, since the profits from any additional volume may dwarf any profits foregone on sales at the original price. By contrast, where a given firm already enjoys a significant market share, it may require a more extreme set of circumstances to make the trade-off attractive, as the potential gain in volume is limited to the portion of the market that the firm does not already control.\textsuperscript{18}

Third, Stigler also demonstrated that fewness of sellers makes the detection of chiselling easier, though the effect of additional sellers diminishes rapidly after the second one. Enforcement of the agreement requires knowledge of transactions and of changes in market shares. Such knowledge is easier to come by, the lower the number of firms. Moreover, colluders are less likely to accept as a random demand fluctuation a loss in market share that occurs from a cheater's increased sales.\textsuperscript{19} As a result, firms will have lower incentives to cheat in a concentrated market.

\textsuperscript{17}For cases acknowledging this relevant factor see, for example, the Canadian case of Director of Investigation and Research v. Air Canada et al. (1989) 27 C.P.R. (3d) 476 (The Tribunal observed that "It is generally accepted that where there are only two major competitors in a market there is increased opportunity to engage in collusive behaviour." p. 498); The U.S. case of Ethyl Corp. v. FTC 729 F. 2d 128 (2\textsuperscript{nd} Cir., 1984)("Only four firms operated in the market for the production of antiknock compounds. The characteristics of the industry: high concentration, small likelihood of new entries because of a sharply declining market, inelastic demand, and homogeneity of product- led to a natural oligopoly which was more prone to price coordination."); Reading Indus. v. Kennecott Copper Corp. 477 F. Supp. 1150 (S.D.N.Y. 1979) aff'd 631 F. 2d 10 (2\textsuperscript{nd} Cir., 1980) cert. denied 452 U.S. 916 (1981)("In a highly concentrated, vertically integrated, interdependent industry protected from outside encroachment by enormous startup costs and limited supplies of the basic commodity (copper ore), opportunities for collusion are extensive and the potential benefits to be realized great."); The Israeli case of Re Request for the Director's Clearance to an Agreement for the Creation of Poligar, in Tova Olshstein (ed.) Hegbelim Iskiim (Tel Aviv: Vaad MehozTel-Aviv-Yafo, 1994), Vol. A, p. 108.
\textsuperscript{18}Stigler, supra, note 5.
\textsuperscript{19}Ibid.
This theory is supported by several empirical studies. Hay and Kelly, using a sample of firms convicted of price fixing, show that such price fixing “is most likely to occur and endure when numbers [of sellers] are small, concentration is high and the product is homogeneous.” They found that the average number of firms in a conspiracy case was 7.25, and the four-firm concentration ratio exceeded 50% in 38 out of 50 cases. They concluded that concentrated markets, with relatively few firms, provide a lower cost of cartel planning and enforcement and less need for formal organizations which would raise the chance of discovery. Fraas and Greer found that price-fixing cases exhibited a greater frequency in the four to nine firm range.

Entry barriers
Fewness of firms is conducive to collusive conduct only if there exist high entry barriers into the relevant market, as often is the case in a small economy. Without entry barriers no reduction in competition among incumbents can successfully elevate price above marginal cost in the long run. If potential rival firms can enter or expand in the short-run, they may increase output so long as the market price exceeds their costs and reasonable profits. Such conduct can destroy a cartel by depriving it of sufficient demand to obtain supra-competitive returns. Barriers to entry thus protect the monopoly profits of the cartel from external competition and subsequent erosion.

One of the most prevalent entry barriers in small economies is the existence of high levels of minimum efficient scale relative to demand. When scale economies are substantial, a potential entrant must enter at minimum efficient scale or suffer cost disadvantages, if his rivals operate at optimal output levels. As elaborated in Chapter 1 above, many markets in small economies have additional entry barriers that further limit the ability of the self-correcting forces of the market to regulate effectively collusive conduct.

The Israeli gasoline market illustrates the importance of entry barriers for protecting an oligopolistic market. For several decades a limited number of firms (three) were allowed to operate in the gasoline market. Several years ago the market

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20 G. Hay and D. Kelley, “An Empirical Survey of Price Fixing Conspiracies” (1974) 17 J.L. and Econ. 13, 26-7. This empirical study may, nonetheless, exhibit a higher number of firms than is required in practice to collude, given that in markets which are highly concentrated (two or three players), it is often difficult to prove a conspiracy.


22 See Chapter 1 supra.
was opened to competition. However, instantaneous new entry was blockaded due to high entry barriers. Most of the existing gas stations were bound by long-term contracts to the three incumbent gasoline companies. High barriers also faced newcomers willing to invest in building new gasoline stations, given the high costs required to build such stations and the regulatory obstacles involved. It was only after the government relaxed some of the regulatory obstacles to building new gas stations and challenged the legality of the long-term contracts between station owners and the incumbent gasoline companies that new entrants were able to compete effectively in the market.

**Cost structure**

High levels of minimum efficient scale, as are prevalent in small economies, may often imply a high ratio of fixed to variable costs. This factor has ambiguous effects on the incentives of firms to cheat on collusive agreements. On the one hand, the temptation to stabilize profits and avoid the risk of price competition is especially high when fixed costs are relatively high, since losses caused by reduced market shares are severe if there is less output over which fixed costs can be allocated. On the other hand, the incentive to shade prices is large because the margin between price and variable cost is considerable. With a substantial incentive to cheat, there is less likelihood of achieving the mutual confidence necessary to establish the consensus price with any degree of permanence.

**Cost Heterogeneity and Size Disparity**

Cost heterogeneity among firms increases the difficulties in reaching a cooperative outcome. The best joint profit maximizing price may be too low for the high-cost firm and too high for the low-cost one. In addition, difficulties with the division of profits may arise as joint profit maximization requires that firms produce unequal output and earn unequal profits. Disparity of firm sizes creates similar obstacles to collusion.

**II. The nature of the product**

**Homogeneity of products**

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Homogeneity of products produced by rivals decreases policing costs by providing an unadulterated price which can be easily monitored. By contrast, where products are differentiated—either in fact or only in the consumers' eyes—no single price will create an equilibrium. This complicates the problem of choosing a consensus price, and the selected price structure is likely to be fragile.

**Multiplicity of product variables**

The greater the complexity of the product line characteristics or the cost variables of any given product, the greater the number of individual price variables to determine and maintain, the less comparable transactions become and the more difficult it is to cartelize by reaching an agreement on all the competitive variables in the first place and subsequently detecting cheating with respect to all of these variables. Moreover, cheating can take the more subtle and less detectable form of exploiting the pricing or service that is least observed by other firms.

**III. Nature of sales**

**Lumpiness of sales**

Lumpiness of sales when firms make relatively few sales per year, with each sale accounting for a sizable portion of annual income, may create strong incentives for cheating. By lowering price for one or two transactions, a firm can substantially increase its annual sales volume. Moreover, punishing a deviator may be harder to accomplish in the short-run. However, such cheating is usually more easily detectable.

**Secrecy of sales**

Open sales allow all rivals to observe the prices charged by their rivals, thereby allowing firms to attain the industry-optimal price by a succession of incremental price moves on a trial and error basis. In addition, non-cooperative conduct can be discovered fairly rapidly and costlessly by other colluding parties.

**IV. The “Personality” of the firms operating in the market**

The inclination of firms to cheat on a cartel or not participate in it in the first place is influenced by firm-specific endogenous and exogenous factors. Firms may experience in their “life cycles” periods in which other incentives, apart from the desire to gain
long-run high profits from collusion, may tip the scales and determine whether or not the firm will cheat on a cartel. For example, a threat of a take-over or a loan request that may require the firm to show immediate high profits may create strong incentives to increase short-term profits by cheating.

Alternatively, the incentive to engage in collusive conduct is influenced by the "personality" of different firms. A collusive agreement may be hindered by even one competitor who does not agree to take part in such a scheme, as long as it has the capacity to serve a significant portion of the market and its costs are not much higher than his rivals'. This can be illustrated by the Israeli case of the *Bezeq auction*. Bezeq, the Israeli telephone company, requested six local firms to bid for the supply of telephone outlets and sockets. The firms met, before filing their bids, in order to allot the required works among themselves. Five firms agreed to prepare their bids in a manner that would grant each firm a pre-specified part of the bid. The only obstacle to this plan was a new firm which had just entered the market and did not agree to join in the scheme, and thus bid competitive prices for all the products.

**D. The Social Costs of Collusion**

By alleviating prices above competitive levels, collusive agreements among firms which collectively have market power create the host of social costs associated with monopoly pricing which were analyzed in Chapter 4 above. The principal evil created by a collusive strategy is persistent supra-competitive prices that are indicative of allocative inefficiency. Importantly for small economies, allocative inefficiency is increased where minimum efficient scales are high. Consider a situation where there are three firms in a market in which minimum efficient scale exceeds 30% market share and scale advantages are significant. The firms have less reason to fear new entry than firms in markets with lower minimum efficient scales. Any new entrant whose market share is less than 30% will have a cost disadvantage. The greater that disadvantage, the more room there will be for supra-competitive pricing by the firms already in the market.25

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24 *Re Anti-competitive agreement among the tenderers in the Bezeq auction*, in Hegbelim Iskiim, *ibid*, at p. 71.

Although both cartels and monopolies create allocative inefficiency, they differ in one important aspect. Monopolies can realize internal economies of scale and scope that reduce productive inefficiency and are not realizable in a market comprised of a large number of small firms. Such productive efficiency gains can offset at least some of the allocative inefficiency losses. In the case of a price-fixing cartel there are no offsetting productive inefficiency gains, because the scale of the participating firms has not changed. Rather, the cartel may permit the perpetuation of high-cost inefficient producers who no longer face competitive pressures to reduce their costs or to exit the market.\textsuperscript{26} For example, consider a situation where production on efficient scale requires four production plants, each catering to 25\% of the market, and the market currently consists of five equal sized production plants. If the five plants are controlled by a single monopolist, it will have strong incentives to minimize its costs by closing down one of the plants. By contrast, if the five plants are controlled by five oligopolists, they may not be able to reach an agreement whereby only four plants will stay operational. No oligopolist would agree to close down his plant, unless he can be satisfied that he will share the profits of the operational plants. Such an agreement would be hard to enforce, unless it is legal.\textsuperscript{27} The cartel members will probably have to settle on some compromise scheme for allocating production among themselves, even though the result is not optimal.\textsuperscript{28} Accordingly, bare cartels are unambiguously inefficient.

Collusion may also reduce dynamic efficiency by reducing the incentives of firms to engage in research and development, or to adopt new technologies that may change their cost structures and thus upset the market equilibrium. For dynamic incentives to be suppressed two conditions have to be met. First, firms must have great faith in the stability of the cartel. Otherwise, the fact that potential rivalry may erupt might create strong incentives for firms to create and implement new technologies. A failure to seize market opportunities may risk greater losses in an oligopolistic market structure than a monopolistic one because a profitable opportunity foregone by one

\textsuperscript{26} Dunlop et al., supra, note 9, at p. 111-2.
\textsuperscript{27} See sub-section 6.4 below which deals with joint ventures.
\textsuperscript{28} Hovenkamp, supra, note 25. This can be improved by “transferable production quotas” whereas a firm with lower costs can purchase the right to produce more from a firm with higher costs. This, however, is highly detectable as it involves money transfers from one firm to another. Also, cartel members should have great confidence in the durability and profitability of the cartel.
oligopolist may well be taken by a rival to the relative detriment of the former. Second, the profits firms seek to gain from adopting or developing new technologies must be lower than the profits gained through the collusive pricing arrangement. A firm that succeeds in differentiating its product or reducing its costs significantly will enjoy a larger share of the overall profits.

Collusive agreements may also distort incentive mechanisms in the market by destroying or distorting the natural advantages of firms supplied by oligopolists. For example, assume that a firm utilizing the output of an oligopolistic firm locates itself in close proximity to the oligopolist in order to reduce its transportation costs. If the oligopolistic firm colludes with its potential rivals to fix costs, including transportation costs, the customer firm loses the locational advantage it might have obtained otherwise. Customer firms thus may not be able to rely on the location of the oligopolist in order to determine their own optimal location.

The fact that collusive prices are set at a supra-competitive level does not, however, necessarily imply that oligopolists enjoy high profits. Cartels often spend much of their anticipated profits in efforts to reach an agreement, to detect cheating and to punish it. Such costs are wasteful since they do not enhance social welfare. In addition, oligopolists often spend much of their anticipated profits on non-price competition, often until marginal costs rise to the cartel price. Fierce rivalry is often observed in such matters as product design, packaging, advertising, service and marketing generally. Firms engage in such competition since these non-price enhancements do not undermine the agreed upon price structure, yet can be copied or offset by rivals only by considerable difficulty and delay. Such expenditures may also raise costs by less than an across-the-board price reduction would reduce revenues.

Aggressive non-price competition by colluding oligopolists produces an ambiguous effect on social welfare. To the extent non-price enhancements increase the real or perceived value to consumers, they may increase welfare. However, they may drive costs up thereby reducing productive efficiency. In addition, such competition may create high barriers to entry, by necessitating heavy promotional

30 Several empirical studies of cartels have indicated that their members do not necessarily earn more than the competitive rate of return. See, for example, Asch and Seneca, "Is Collusion Profitable?" (1976) 58 Rev. Econ. & Stat. 1.
31 Ginsberg, "Non-Price Competition" (1993) 38 Antitrust Bull. 83.
expenditures by an entrant wishing to differentiate his own brands from his competitors’.

6.2.3 Agreements with Pro-Competitive Effects

Many agreements among competitors may achieve both private and socially valuable purposes. The welfare effects of strategic alliances to share certain facilities (such as costly production plants that have extremely high minimum efficient scales of operation), joint ventures (such as those for costly research and development activities), and specialization agreements are ambiguous and pose more subtle and contentious analytical problems than bare cartels. Such agreements may enhance productive, dynamic and even allocative efficiency. At the same time, they have the potential to restrict competition in the markets in which the cooperating firms compete or are likely to compete in the future. The welfare effects of such agreements such agreements will be dealt with separately in section 6.4 below.

6.2.4 Conscious Parallelism

A. General

Conscious parallelism can best be described as actions of rivals which are based on the tendency, inherent in oligopolistic markets, to coordinate policies spontaneously, and not as part of an agreement and without the need for facilitating practices, because the information is readily available and the consequences of failure to do so are dramatic. Parallelism is thus reached only by assessment by each oligopolist of his rivals’ behavior and reacting with recognition of interdependence. Communication is merely aided through actions and reactions of oligopolists to each other and to exogenous events. Conscious parallelism may manifest itself in many non-collusive ways, including an unwillingness to engage in aggressive price competition for fear of triggering a damaging price war or a willingness to tolerate a rival’s price cutting that is an attempt to restore lost market share coupled with a strategy of responding aggressively when that rival’s share grows beyond historical levels.

The Australian case of Mobil Oil provides a useful example of conscious parallelism. There, several oil companies allegedly fixed the prices of petrol sold in

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33 On definitional problems see Howard and Standbury, supra, note 7, at p. 227.
34 ACCC v. Mobil Oil Australia Ltd. (1997) ATPR 41-568.
gas stations. The allegations were based primarily on evidence of parallel pricing. The Australian court rejected the allegations as petrol retailing involves highly visible price boards outside service stations and customers are quite capable of driving to the next station if the price at one station is higher than what they expect. A company’s retail prices and the fluctuations are as readily apparent to competitors as they are to customers. Parallel conduct in such markets is thus as likely to follow from observation and independent decision as from a collusive agreement.

In small economies conscious parallelism is widespread. The number of firms in the majority of industries is so small that even in the absence of restrictive agreements there is little room for effective domestic competition. When there are only two or three firms in an industry, there is hardly a need for a formal agreement in order to act in concert. Rather, firms recognize their interdependence and act accordingly. Assume, for example, that firm A prices its products at supra-competitive levels. Firm B will have incentives to match A’s price and sell at supra-competitive levels as well, unless it is able to force A to exit the market and gain a monopoly position, or the price set by A is not the joint profit-maximizing price. If B undercuts A, A would have to reduce its prices to B’s level or lose as much of its market share as B could supply. It may take several iterations until the price stabilizes at a joint profit-maximizing level. Each firm is thus making its own independent decision based on the realization that if both do not act competitively, they will both have some market power.

Another Australian case can be used to illustrate this point. In Email, two manufacturers of electricity meters potentially competed in the market. Both issued identical price lists and tendered in accordance with their respective price lists. The explanations of the identical conduct by the two defendants which were accepted by the court involved, inter alia, the fact that Email had been a price leader given its considerably greater strength than its competitor and the fact that it was more efficient and better established. In addition, the largest customer had a policy of supporting two competitors in the market, irrespective of their costs. Under such market conditions, the less efficient market competitor can either try to undercut its more efficient rival’s prices which would lead to a price war, in which its competitor has a comparative

advantage, or follow its rival's pricing strategy which sets prices at a supra-competitive level. Both firms have a clear preference for the second type of conduct. As to several facilitating practices (the parties sent to each other their respective price lists immediately when they changed prices or introduced any meter or components), the court found that such actions simply helped facilitate a smoother non-collusive barometric price leadership by ensuring that its competitor had all the information regarding its prices. The court found no violation of the competition laws. It stated that:

"By sending its price lists to [its competitor] Email helped [its competitor] follow the Email prices if it chose to do so; but there was no obligation that it should do so; and this ensured price stability.... The price leadership situation could operate quickly. Email was confident that [its competitor] would follow its price based on previous experience." 37

The price level yielded by oligopolistic interdependence may vary from a competitive price level through a Cournot equilibrium price to a cartel-like outcome. For mere oligopolistic interdependence to achieve cartel-like results, certain conditions must be present. The leading firms must have similar cost levels and structures; they must have similar expectations about demand elasticity; they must be unable to conceal price cuts from rivals; the technology must be known and available on similar terms; their outputs must be homogenous. These conditions rarely exist in practice. 38

Under the Cournot model, which is the benchmark static model of competition in output, each firm chooses its own output while taking into account the effect of its choice on the output decisions of its rivals. 39 An equilibrium is reached where each firm equalizes its own marginal costs and marginal revenue. An important aspect of the theory is that each firm's markup is directly proportional to its market share and that market shares of firms are directly related to their efficiencies. As the number of

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37 Ibid.
38 Robert Bork, The Antitrust Paradox- A Policy at War with Itself (New York: Basic Books, 1978) at p. 179. M. Blechman, "Conscious Parallelism, Signaling and Facilitating Devices: The problem of Tacit Collusion Under Antitrust Laws" (1979) 24 N. Y. Law School Rev. 881. ("Contrary to the assumption that most anti-competitive results among oligopolists arise naturally as a result of parallel conduct, in case after case it appears that even in highly concentrated industries, competition is suppressed with great difficulty and only as a result of deliberate efforts by the members of an industry to reach an express or tacit agreement." p. 892).
firms increases, total market output increases as well, and the price is correspondingly lower. With each firm maximizing its own profits, given its rivals’ outputs, the result is not pareto optimal from the point of view of the firms since increases in a single firm’s output have a negative effect on its rivals’ profits. This negative externality causes the Cournot equilibrium to entail a higher aggregate output and lower price than does the collusive outcome.40

Cournot strategies are theoretically more stable than cartel strategies, as firms maximize their profits based on existing market conditions as they perceive them to be. Nonetheless, Cournot stability is ensured only if price cuts must be made across the board. If firms are able to make secret price cuts it becomes very difficult to predict what the resulting equilibrium will be, and prices may even be driven to competitive levels.41 This may require firms to take corrective actions designed to make price cuts more readily detectable. Cournot equilibrium will thus be most likely where an agreement cannot be reached or enforced and secret, discriminatory price cuts are impossible.42

B. The social costs of conscious parallelism

The welfare effects of conscious parallelism depend on the level of coordination reached by market participants. As noted above, it may vary from an almost competitive level to cartel-like levels. The welfare effects of the latter were analyzed in Section 6.2.2 above. The Cournot equilibrium, although less profitable for oligopolists, may also impose high costs on society.43 First, the resulting arrangements can be more stable than a cartel, and thus create, in the long run, significant deviations from competitive price levels. Second, under the Cournot equilibrium inefficient firms will be able to survive, although their market shares will be smaller than those of lower cost firms. Finally, it may create inefficient non-price competition.

6.2.4 Co-operative Strategies with Facilitating practices

Due to the natural obstacles of reaching a profit-maximizing scheme and the illegal nature of collusion, firms seek strategies that will help reduce competitive friction and

40 Shapiro, supra, note 5, at p. 337
42 Hovenkamp, supra, note 25, at p. 154-7.
43 Shapiro, supra, note 5, at p. 343.
increase the likelihood of coordinated conduct by way of coordination of prices and other strategic variables. Such practices, often termed facilitating practices, go further than what is contemplated in the model of pure oligopoly, since firms engage in specific, arguably avoidable acts, rather than mere oligopolistic interdependence. 44

Many types of facilitating practices exist, with varying degrees of success in promoting coordinated conduct. Salop identifies two distinct effects of facilitating practices: information exchange and incentive management. Information exchange facilitates coordination by reducing the uncertainty about rival's actions and intentions. It includes inter-seller verification of price quotations and advance notices of price changes whereby detection lags are shortened or eliminated. Incentive management practices alter the structure of firms' pay-off matrix. By restructuring payoffs, the incentives of a firm to offer price discounts or raise prices may be directly affected. Facilitating practices often have pro-competitive effects or other redeeming social values. Below we give some examples of facilitating practices.

A. Information exchanges
As Scherer observes, "perfect information is unambiguously beneficial only in the context of purely competitive markets. When the market is oligopolistic, it may impair rather than invigorate rivalry." 45 Information exchanges regarding trade terms are necessary in order to reach a profit-maximizing price or to increase price due to changes in market conditions. For purposes of accomplishing the oligopoly tasks, the exchange of information need not be symmetrical. However, such information exchanges may have offsetting pro-competitive effects. They may provide firms with a more complete understanding of market conditions, and may also improve the market performance in more competitive market settings. 46 A complete prohibition of such information exchanges may thus be very costly.

One of the most common examples of information exchange methods involves geographic pricing formulas. When customers and suppliers are geographically dispersed and transportation costs are a non-trivial element in product costs, matching

44 Areeda, supra, note 15, at p. 29
45 Scherer and Ross, supra, note 5.
a rival's delivered price is difficult. One method to overcome this difficulty is by adopting a geographic price formula, such as a delivered price system or base point pricing, that will allow each firm to calculate and match its rival's price. Such practices facilitate tacit price coordination by allowing rivals to parallel and monitor each other's price more easily, even though actual freight charges to different buyers vary greatly. The actual effect of such methods on price levels depends on the relative ease with which oligopolists can parallel and monitor each other's prices in the absence of such pricing schemes. \(^{47}\) Pricing formulas may also severely distort the locational incentives of customers. At the same time, however, geographic pricing formulas may reduce transaction costs where sellers can easily calculate price schedules.

B. Incentive management devices

Incentive management devices may take numerous forms. To illustrate, colluders may use contracts with customers or suppliers that appear to be quite competitive as facilitating practices, thereby promoting collusive outcomes. The use of such contractual terms allows the oligopolist to make a binding commitment to his rivals to transform his incentives, by formalizing a particular set of supply functions or reactions that yield collusive outcomes. \(^{48}\) Meeting competition clauses, for example, under which a firm announces that its price is the minimum of some price and the lowest price posted by another firm, may be used as facilitating devices. Such clauses automatically incorporate the aggressive responses to price cutting- the immediate matching of prices- that are needed to support collusion. Customers are used to police the arrangement, since the chance to collect damages or to receive price discounts creates incentives for them to ensure performance and bear the costs of monitoring the oligopolist's conduct and enforcing the contract. These clauses may not be in the buyers' interest if their collective acceptance by all buyers stabilizes the sellers' joint profit outcome and makes discounting less desirable or price increases less risky. Nonetheless, such clauses may be valued by each buyer individually, since they ensure that he will enjoy the lowest price requested by any firm operating in the

\(^{47}\) Ethyl, supra, note 17. The commission concluded that it would have been considerably more difficult for respondents to achieve the high degree of price matching that occurred without the convenient common benchmark of uniform delivered prices. The Second circuit thought instead that freight costs were too small a portion of the total price to matter.

\(^{48}\) Salop, supra, note 11.
market. Such clauses may especially be favored by small buyers because they protect them from their inability to bargain effectively and ensure that their rivals will all be placed on a level playing field regardless of their bargaining strength, timing of contracting and other parameters (such customers ignore the negative externalities they create). It is noteworthy that a necessary condition for oligopolistic coordination based on such contractual clauses is the existence of high entry barriers into the market. Otherwise, a new competitor could enter the market, charge a lower price, and induce all other firms to lower their prices accordingly.

Some facilitating practices may involve exclusionary acts. These are unilateral acts that could impede entry or expansion of rival firms. One interesting example of such practices is found in the U.S. *American Tobacco* case.\(^49\) There, the major cigarette manufacturers purchased cheap tobacco that could not be used to produce their cigarettes, to drive up its price to their smaller competitors selling cheaper brands. The purchase of an unneeded product seemed to have no purpose but to impede competition and protect the market power of the major firms. Other exclusionary conducts may include parallel vertical integration, exclusive dealings or tying that may foreclose many marketing opportunities for small competitors and impair competition. Again, several of these practices can be justifiable for their pro-competitive effects. The social costs of facilitating practices depend on the level of coordination they create among potential competitors and their offsetting pro-competitive effects.

Oligoplies create substantial social costs. Under market conditions that are omnipresent in small economies, market forces often have limited ability to regulate oligopolies. Accordingly, regulation plays a critical role in reducing their social costs. The following sections analyze and survey the tools available to competition laws to regulate oligopolistic behavior. The sections are organized around the four main types of oligopolistic coordination, analyzed above.

### 6.3 Regulation of Collusive Agreements

#### 6.3.1 Regulation of Collusion- General

As noted above, collusion among potential rivals may create allocative, productive and dynamic inefficiency. While the inherent instability of collusive agreements entails some self-correcting tendencies, many agreements have proven to be reasonably durable and have imposed substantial costs on consumers. Regulation of collusion may reduce these costs, if not eliminate them.

Not surprisingly, all jurisdictions regulate collusion. Methods of regulation differ, however, in important aspects, such as the types of agreements prohibited, the legal standard for regulating collusion and the evidentiary requirements necessary in order to infer collusion. Nonetheless, such prohibitions are generally based on two common elements. The first is some form of meeting of minds among rival market participants and the second is a restraint of trade.50

A. Meeting of minds among rivals
Most jurisdictions require some kind of meeting of minds among potential competitors in order to establish collusion. The Australian Trade Practices Act and New Zealand Commerce Act, for example, require an “agreement, arrangement or understanding”; The Canadian Competition Act requires a conspiracy, combination, agreement or arrangement. The Israeli Restrictive Trade Practices Act requires an arrangement; The Maltese Competition Act and the EC Treaty of Rome require an agreement or a concerted practice. The U.S. Sherman Act requires an agreement (hereinafter those requirements will be termed together “the collusive agreement requirement”).

The collusive agreement requirement shifts the focus from the outcome or the effect of the collusive conduct to the method of achieving it. It does so in order to create a distinction (although sometimes vague) between collusion, whether tacit or otherwise, and mere conscious parallelism. As will be shown, this distinction creates much controversy surrounding the circumstantial evidence needed for the inference of a collusive agreement, and may result in the inability to prove a cartel. Moreover, the requirement creates a paradox that joint action not agreed upon by an oligopoly group may legally achieve noncompetitive prices which would be illegal if set by a cartel enjoying the same or even a lesser degree of market dominance. If protecting consumers and others from market power is the central objective of antitrust, this is an

50 Some exceptions apply. The U.S. FTC Act, for example, focuses on restraint of trade only. However, it was interpreted by most courts in a parallel fashion to the Sherman Act.
obvious flaw. However, given the highly problematic nature of prohibiting conscious parallelism, it may be unavoidable.

Proving the existence of a collusive agreement may be a difficult task. Direct evidence of an explicit agreement is the best indicator available. Not surprisingly, the clearer the law and the higher the risk of enforcement, the less likely it is to find explicit agreements between market participants. Early conspiracy cases in almost every jurisdiction involve express collusive agreements. It is rarely the case, however, in jurisdictions where collusion has been clearly prohibited for some time, that colluders provide explicit evidence of agreements and documents in restraint of trade. Yet regulators may sometimes find a paper trail, even if colluders tried unsuccessfully to conceal its nature.

A much more difficult task involves inferring a collusive agreement from circumstantial evidence. Especially where there is a small number of firms, as in many markets in a small economy, it is entirely possible to reach an agreement with little or no documentation, as both offer and acceptance can be crystallized by action alone. Unfortunately, such circumstances are often equivocal. Mere parallel conduct is not conclusive evidence of an agreement among competitors in an oligopolistic market, due to the fact that in such markets firms will also be seen to be acting in parallel fashion when they are acting rationally in light of the structure of the industry which makes them interdependent. Alternatively, firms may have a common reason to act in the same manner.

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52 See Section 6.5, infra.
54 This can be illustrated by the Canadian case of *Container Materials Ltd. et al. v. The King* [1942] S.C.R. 147, 1 D.L.R. 529. There, fourteen manufacturers of fiber board containers established a company as their sales agent. Each entered into an agreement with the sales agent under which the agent would buy output to a certain value from each manufacturer and sell it on the manufacturer's behalf. Each manufacturer agreed to grant the agent exclusivity over selling its products. In fact, the agent did not buy or sell anything. Each manufacturer were constituted a licensor to carry out its sales activities and render elaborate reports to the agent. The agent fixed all the terms and conditions of manufacture and sale. This arrangement was clearly a medium through which manufacturers conspired and the agent ensured compliance by keeping close track of the conspirators' activities, although it was designed to look, superficially, like a legitimate business arrangement. The firms were rightly convicted of conspiracy.
55 See, for example, U.S. case of *Modern Home Institute Inc. v. Hartford Accident and Indemnity Co.*, 513 F. 2d 102, 110 (2d Cir, 1975) Parallel behavior alone is not sufficient evidence of conspiracy to find a Sherman Act Section 1 violation...Parallel conduct is consistent with independent competitive
Economic theory has a major role to play in such inferences by providing some guidelines on what enabled and motivated each firm to follow the same course of action. Oligopoly theory provides insights into the market conditions that must exist in order for firms to coordinate their conduct by way of mere conscious parallelism. Once these conditions are absent due to the natural conditions of the market, it may be inferred that parallel conduct was thus facilitated by measures adopted by the parties to overcome natural obstacles. Alternatively, economic analysis may reveal that parallel conduct is innocent where the market is oligopolistic and its natural conditions do not create insurmountable obstacles to conscious parallelism. While this analysis is in principle not affected by market size, small size of an economy may affect the existence of several market conditions which are conducive to collusion, such as entry barriers and highly concentrated market structures. When such conditions exist, it may be much more difficult to prove the existence of a collusive agreement without direct evidence of collusion. The “gray zone” between collusion and conscious parallelism is much wider. As a result, small economies may face severe difficulties in proving the existence of a collusive agreement based on economic factors alone.

Nonetheless, in some cases agreements could be inferred from “plus factors” together with parallelism of conduct. Plus factors are simply evidence that signals an “unnatural parallelism” from which to infer a traditional conspiracy. Areeda defines unnatural parallelism as what “would probably not result from chance, coincidence,

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56 See, for example, the EC Wood Pulp case OJ [1985] L 85/1, [1985] 3 CMLR 474. Cases 89/85 etc. A Ahlstrom Oy v. Commission [1993] 4 CMLR 407 (The Commission held that 57 producers of wood pulp, established principally in North America and Scandinavia, were guilty of a concerted action to fix prices. It based its conclusion on direct and indirect exchanges of information that have created an artificial transparency on price information and the fact that the market was not a narrow oligopoly in which parallel prices might be expected. Rather, sellers faced different cost structures, and were situated in different geographic locations which influences transportation costs. On appeal, the ECJ practically annulled the Commission’s decision. It stated that parallel pricing could not of itself be regarded as furnishing proof of concentration unless that was the only plausible explanation for such conduct. In this case there was an alternative explanation of the simultaneous price increase announcements. The wood pulp market constituted a long-term market and there was a need by both commercial buyers and sellers to limit commercial risks. “The parallelism of prices and the price trends may be satisfactorily explained by the oligopolistic tendencies of the market and by the specific circumstances prevailing in certain periods.”)

57 See, for example, the Australian case of TPC v. Nicholas Enterprises Pty Ltd (1979) ATPR 40-126 (The failure to provide another explanation in evidence for parallel pricing conduct was an important consideration in finding that an understanding had been reached).
independent responses to common stimuli or mere interdependence unaided by advance understanding among the parties.\(^{58}\) An agreement could thus be inferred where the parallel action could not have resulted from purely separate decision making by those involved, and that no other reasonable inference can be drawn from the proved facts.\(^{59}\)

One example of a plus factor is simultaneous identical bids to supply a made-to-order product not readily assembled from standard and conventionally priced items, that is too close for coincidence and beyond explanation by mere recognized interdependence. The Canadian case of \(R \, v. \, \text{Canadian General Electric Co.}\)\(^{60}\) may serve as a good illustration. The three accused firms (C.G.E., Westinghouse, and Sylvania) had a market share of 95% of the manufacture and sales of large lamps. Prior to 1959 there was extensive cut-throat pricing. In 1959 C.G.E. published an elaborate plan covering all aspects of its distribution, sales and supply of large lamps. The three accused companies put identical plans into effect on the same date. Two years later all three firms adopted an amended plan eliminating the discount system and introducing net pricing. Over a period of eight years there was price stability in the market. One of the most important factors in the finding of a conspiracy was the fact that in one tender 27 completely identical bids from local distributors of the three manufacturers were given. The court rightly inferred the existence of an agreement. Australian courts have, however, declined to find an illegal arrangement when two potential competitors submitted identical tenders, where the situation involved clear price leadership.\(^{61}\)

Similarly, a collusive agreement finding may be supported by acts against self-interest. Such cases involve situations where it would be in the firm’s interest to act otherwise, even in an oligopolistic market, absent an agreement. For example, where an independent reason would seem to be lacking when a firm declines an offer that is


\(^{59}\) Howard and Standbury, \textit{supra}, note 7, at p. 235; \(R \, v. \, \text{Cooper}\) (1977) 74 D.L.R. (3d) 731 (SCC).

\(^{60}\) (1976) 15 O.R. (2d) 360, 75 D.L.R. (3d) 664, 34 C.C.C. (2d) 489 (H.C.J.)

\(^{61}\) \textit{Email, supra}, note 36. See also \textit{TPC v. Allied Mills Industries Pty Ltd} (1980) ATPR 42,452 (Price fixing findings based on parallel conduct of glucose manufacturers following a price war, refusal to cut prices to gain new customers contrary to earlier behavior, and meeting between the parties. The court rejected arguments of non-collusive price leadership and conscious parallelism.)
clearly welfare-enhancing for the firm. In that event, common action would imply a traditional agreement.\footnote{See, for example, the EC case of Compagnie Royale Asturienne des Mines SA and Rheinzink GmbH v. Commission, cases 29, 30/83 [1984] ECR 1679, [1985] 1 CMLR 688 (Simultaneous cessation of deliveries to Belgian customer could be attributable to the customer’s failure to settle its accounts on the due date, rather than a concerted refusal to deal); The U.S. case of Alford Polk v. F. Schumacher & Co. F. 2d (3d Cir, 1993)(Each seller had an individual interest in ridding itself of free-riding. Actions were in the self interest of all firms which acted in a parallel fashion).}

On the other hand, evidence of high profits should not serve as the basis of findings of collusion. Abnormal profits can be attributable to short-run excess demand, superior efficiency or innovations in product or production processes. Evidence of motivation to conspire should also not be construed as supporting conclusion of collusion. Conspiratorial motivation in the sense of a reasonable prospect of increasing profits through collective action is a logical corollary of interdependence. Motivation is thus synonymous with interdependence and therefore adds nothing to it.

B. Restraint of Trade

The effects of collusive agreements among potential rivals depend on the existing market conditions as well as the nature of the agreement. An agreement that involves no more than fixing prices or reducing output (a “naked” agreement) will usually restrain trade, unless the parties possess no market power. An agreement among several small retailers, for example, that engage in fierce competition with larger, more efficient competitors, to fix prices is unlikely to have any effect on price levels, unless such retailers have the capacity to serve their larger competitors’ share of the market. Other agreements may have overall pro-competitive net effects, notwithstanding the fact that they involve some agreement on price or output levels.\footnote{Such effects are discussed, at length, in section 6.4 infra.} The following sub-section focuses on the regulation of naked collusive agreements. The next sections focuses on the regulation of agreements with potential pro-competitive effects.

6.3.2 Regulation of naked collusive agreements
An important debate surrounds the legal standard required to prohibit a naked collusive agreement. At one end of the spectrum lies the *per se* rule. A collusive agreement is deemed illegal, without further inquiry into its effects on competition or the motivation of the agreeing parties. The logic behind such a rule is that collusive agreements appear upon analysis to be inimical to the public interest and rarely if ever productive of any substantial public benefit. The costs of striking down those few instances of the practice capable of producing some net benefit to the public or that are neutral may be judged to be outweighed by the greater clarity and certainty of a *per se* ban, and thus such conduct is prohibited categorically. Moreover, collusive agreements with no offsetting benefits undermine the most fundamental tenets of a market economy, that sellers will act independently in seeking competitive advantage.

U.S. courts, for example, have interpreted the *Sherman Act* as creating a *per se* violation in some cases of collusive agreements. These include horizontal price fixing, market division, bid rigging and entry-barring cartels with no offsetting pro-competitive effects. Once such an agreement is found, it is not a defense that its members did not possess enough market power to reduce output profitably.

On the other side of the spectrum lies the rule of reason, which analyzes the effects of a cartel in each specific case. Practices analyzed under the rule of reason are considered in their market context to ascertain whether they restrain trade. For this purpose the anti and pro competitive consequences of the agreement must be balanced against one another. The justification for the adoption of such a rule is limiting false positives—those cases in which the parties’ conduct does not restrain trade. Even a naked price cartel will not have anti-competitive effects on competition in the absence of certain structural conditions that are conducive to the lessening of competition and which include high concentration levels, high entry barriers, relatively homogenous products, and significant market shares of the colluding parties.

The Canadian conspiracy provision, for example, requires proof of undue lessening of competition, except in bid rigging cases. Although there is no specific

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66 Canadian Competition Act 1986, section 45.
67 *Ibid*, sec. 47. Section 49 applies a *per se* rule to certain types of agreements among banks.
de minimis provision, McFetridge and Wong argue that in light of the existing case law, a market share of at least 80 per cent is required.  

The EC has adopted a qualified rule of reason analysis that places the burden of explaining cartelistic activity on the defendants. Article 85 prohibits any cooperation between independent undertakings which prevents, restricts or distorts competition. The law clearly provides that agreements to "directly or indirectly fix purchase or selling prices or other trading conditions" fall within the prohibition. Such agreements are automatically void unless one of two exit valves applies. First, the agreement qualifies for a individual or block exemption because of its offsetting beneficial effects. However, naked, horizontal cartels have clearly been condemned by the Commission. Second, collusion must be capable of affecting trade and having the object or effect of restricting competition within the common market. However, the anti-competitiveness for the purpose of Article 85(1) of naked, price-fixing practices is assumed from their object. It is unnecessary to prove that the agreement in question actually has adverse effects on competition- it is sufficient to show simply that there has been an agreement. Yet the Notice on Agreements of Minor Importance, adopted in 1997, is based on the view that "in order to ensure effective and undistorted competition, it is sufficient for the commission to be able to investigate agreements made by large undertakings once they reach [certain] market-share thresholds." A vertical agreement falls in principle outside the scope of application of Article 85(1) if the parties thereto and the group to which they belong do not together hold more than 10% of any of the relevant markets. In the cases of horizontal and mixed agreements, the applicable market share threshold is 5%. However, the notice explicitly provides that price-fixing agreements between competitors or vertical agreements conferring territorial protection may be deemed to restrict competition to an appreciable extent.

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71 Notice on Agreements of Minor Importance which do not Fall Within the Meaning (sic) of Article 85(1) of the Treaty Establishing the European Community, OJ 1997 C 372/13.
73 Notice, supra, note 71, para. 19-20.
even if the market share thresholds indicated are not exceeded. The notice also does not apply where undertakings set up networks of similar agreements and competition is distorted by the cumulative effect of these parallel networks.

Ideally, a small economy should adopt a set of rules that prohibits agreements that restrain trade, whilst minimizing false positives. Given the difficulties involved in analyzing industry conditions on a case-by-case basis, I suggest that a small economy adopt a rule under which naked collusive agreements are *per se* illegal. This would ensure that under most market conditions that exist in small economies and that are competition restricting, anti-competitive agreements would be banned. This rule is based on the assumption that a cartel, unless proven otherwise, restrains trade. Moreover, a clear and strict prohibition of naked cartels is especially important for small economies, in which cartelistic behavior is wide-spread, due to the underlying market conditions which are usually more conducive to collusion.

Australia⁷⁴ and New Zealand⁷⁵ have adopted a qualified *per se* ban on price fixing. Under the competition laws of both jurisdictions, contracts, arrangements or understandings must generally have the purpose or have or are likely to have the effect of substantially lessening competition, in order to amount to a breach. Naked price fixing agreements are, however, analyzed under a *per se* rule, under which it is legally assumed that the conduct is likely to have or has the effect of substantially lessening competition.⁷⁶

Nonetheless, in order to avoid false positives and time-consuming costly legal procedures, a *de minimis* rule could be applied by small economies in cases where it is clear that the parties possess no market power (for example, in cases in which the combined market share of all parties to the agreement is less than 5%). Such a rule is justified given that not all oligopolistic market structures facilitate significant deviations from competitive conditions. In such cases the remaining part of the market itself will most likely regulate the conduct of the parties to the agreement and prevent them from imposing lasting unreasonable trading conditions. The small economy should nonetheless ensure that the *de minimis* rule can be clearly applied and understood by market participants and that it exempt only clear false positives.

⁷⁵ *Commerce Act* 1986, Section 27.
⁷⁶ *Ibid*, sections 28-32; *Trade Practices Act* 1974, Section 45A. See discussion in section 6.5 *infra*.
6.4 Regulation of cooperative agreements with pro-competitive benefits

6.4.1 General
The small size of an economy also exacerbates some of the issues involved in the regulation of agreements in restraint of trade that have some redeeming virtues, such as specialization agreements or joint ventures and strategic alliances for shared research and development, production or marketing functions. Such agreements may enable a group of firms to carry on an activity at a more efficient scale, to reduce information or transaction costs, to engage in expensive innovative projects, or eliminate free rider problems. Absent such agreements, firms in many small markets would incur high costs given that they cannot reach scale economies on their own, or would abandon these projects altogether, thereby reducing technical, productive and the resulting allocative efficiency. At the same time, such agreements may raise restraint of trade concerns, mainly the facilitation or the enhancement of cooperation among competitors in an already concentrated market.

Efficient regulation of such agreements is thus most important for small economies in which many markets are concentrated. Competition policy should distinguish between agreements with pro-competitive effects and those with primary anti-competitive effects. In so doing, it should minimize the costs of competition law enforcement, while not giving up too much in accuracy. Otherwise, the concern that antitrust law enforcers will invalidate agreements among competitors may deter the development of pro-competitive forms of collaboration.

6.7.2 The potential benefits of cooperative arrangements
Importantly for small economies, by joining forces, a cooperative agreement may enable its parties to achieve minimum efficient scale and to lower costs (production, production, T

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77 Certain types of joint ventures come under merger regulation. In the EC, for example, concentrative joint ventures, in which the parties are prepared to put into the joint venture on a lasting basis sufficient resources for it to constitute an autonomous legal entity, not dependent on its parents, comes under merger regulation. In the U.S. competitor collaborations are treated as a horizontal merger if (a) the participants are competitors in the relevant market (b) the collaboration involves an efficiency enhancing integration of the economic activity (c) the integration eliminates all competition among the participants and (d) it does not terminate within a sufficiently limited period by its own specific and express terms. See U.S. Antitrust Guidelines for Collaborations Among Competitors, (Issued in draft by the Federal Trade Commission and the U.S. Department of Justice, October 1, 1999) at p. 5.
78 Hovenkamp, supra, note 25, at p. 185.
79 Guidelines for Collaborations, supra, note 77.
information, transportation, marketing costs, etc.) to levels that any single firm acting
alone could not achieve under the existing market structure. 80 Suppose, for example,
that a certain widget can be produced at minimum efficient scale of 10,000 units.
Further, suppose that four firms (whether or not operating in the same market) each
require 2,500 widgets in their production processes. If all four firms pool their
resources to build a joint plant for producing the widgets, costs will be minimized.
The joint venture may also allow the parties to minimize transaction costs if the
widgets must be made according to unique specifications, necessitating expensive
negotiations with an independent supplier. 81 Some cooperative agreements may
reduce transaction costs so substantially that they virtually create a new market or
extend an existing one substantially. 82 For example, boards of trade, stock exchanges
and farmers' cooperatives may reduce search costs for consumers substantially.

An example of a joint venture that allowed firms located in a small market to
realize marketing scale economies can be found in the recent Israeli case of Poligar. 83
The facts of the case can be stated briefly as follows. Two leading Israeli
manufacturers of polietilen covers for agriculture have formed a joint sales
organization for the distribution and marketing of their produce. The joint venture
allowed the two firms to achieve substantial cost savings though the realization of
economies of scale in distribution which were necessary in order to compete
efficiently with imported products. 84

80 See, for example,
81 Hovenkamp, supra, note 25, at p. 188.
82 See, for example, the U.S. case of BMI v. Columbia Broadcasting System 441 U.S. 1, 99 S. Ct. 1551
(1979)(Blanket licensing agreement saved extreme amounts of transaction cost by eliminating the need
to negotiate separately for the rights to broadcast of every single musical composition. Approved
although the agreement fundamentally altered the price structure of the market); Chicago Board of
Trade v. U.S. 246 U.S. 231, 38 S. Ct. 242 (1918)(Trade board reduced search costs of consumers
significantly).
83 Poligar, supra, note 17.
84 See also the Australian case of Comalco Aluminum Joint Venture Application A90265, 21 Aug. 1979
(A proposed joint venture agreement to construct an aluminum smelter which would allow the parties
to realize economies of scale. Authorization was granted on the basis that there was economic
development of Australian resources which might not otherwise take place. Also, the product of the
smelter was to be exported and thus the TPC saw no lessening of competition in the Australian
sales association classified and marketed coal and distributed the proceedings to participants. Designed
to increase coal sales through better methods of distribution, advertising and research, and achieving
economies of marketing. The defendants collectively controlled about 12% of coal production and the
market contained a great deal of excess capacity. The Court upheld the agreement.)
Cooperation may also allow firms to introduce new and superior products or services that would otherwise not be available, or to allow such products to be brought to market faster than would be possible absent the collaboration, thereby increasing dynamic efficiency. The recognition of dynamic efficiency is most important as the basis of competition often includes not only the price at which standardized products are sold, but the ingenuity, variety and speed of production, development and delivery of new goods and services, which is vital for competing in a global market. The importance of cooperation to enhance efficiency through the combination of different capabilities or resources can be illustrated by the EC Iridium case. The proposed joint venture created a satellite personal communications system involving 66 low orbit satellites. The parties were involved in the telecommunications industry. Nonetheless, the joint venture was approved on the grounds that the joint venture allowed the parties to share the risks and high costs that no investor could reasonably be expected to finance it on his own. Pricing guidelines were treated as ancillary to the joint venture and cleared with it, as uniform pricing was required to maintain the coherence and integrity of the world-wide service to be provided. Cooperation may also solve free rider problems, especially in areas of research and development and advertising.

Specialization agreements, under which each party agrees to discontinue producing an article or service that the party is then producing, and its scope of production is then allocated to another party, are also most important for small economies. Structural problems flowing from population size and artificial as well as natural barriers to trade often create too fragmented a market structure where firms specialize in highly differentiated products that do not allow them to attain many scale or scope economies. The result is inadequately short production runs, especially in industries where the distribution system offers marketing advantages to firms producing full lines of products. In such cases maximum efficiency is unlikely to be

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85 See, for example, the EC case of BBC Brown Boveri/NGK [1989] 4 C.M.L.R. 610 (BBC developed a sodium sulphur battery, but lacked technology in ceramics required for insulation. NGK had developed the technology for ceramics, but had no access to technology relating to batteries.)
88 Canadian Competition Act 1986, section 57.
achieved because each firm is producing a full line instead of specializing in a few items only, absent specialization agreements. Specialization agreements erase competition in the name of efficiency.

Importantly for small economies, collusive agreements might enable small firms to compete more effectively and therefore discipline other firms operating in the market than each firm operating on its own. To give but one example, an agreement among several small producers to run a joint ad quoting similar retail prices would reduce advertising costs of each, and allow them to compete more effectively with their large competitors. Such an agreement could not plausibly create adverse economics effects. A per se rule against all price fixing agreements would prevent a court from considering both the argument that the defendants had no market power and that it reduced advertising costs. This is especially important for small economies in which market power can be achieved and maintained more easily than in a large economy.

This can be illustrated by the Australian case of Eastern Express. There, a group of Sydney suburban real estate agents formed a company to publish a suburban newspaper to compete with an established newspaper which had substantial market power. The court recognized the importance of creating such a company for enabling small agents to compete effectively in a highly concentrated market. It, nonetheless, struck down the articles of association which required the members to place a minimum amount of real estate advertising in the new paper as it was unnecessary in order to achieve the pro-competitive benefits of the arrangement.

6.7.3 Competition concerns raised by cooperative arrangements
In oligopolistic markets cooperative arrangements amongst existing or potential competitors may raise legitimate concerns regarding the restriction of competition. The establishing parties are unlikely to compete aggressively, if at all, with a cooperative venture in which they have a substantial equity interest, whether they are

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91 *SPAR* [1975] 2 C.M.L.R. D 14 (Buying group cleared by the Commission where it enabled small grocers to increase their buying power towards the level exercised by multiple retailers with which they competed.)
93 *Eastern Express Pty Ltd v General Newspapers Pty Ltd* (1991) 30 FCR 385.
already operating in the market or are potential competitors. Agreements may also limit the ability of their participants to compete effectively where key assets are engaged in joint collaboration. In addition, competitor collaboration may facilitate collusive conduct such as output restrictions or monopoly-creating market divisions. For example, if the parties to the agreement may not compete with a joint venture, this is, in fact, a market division agreement.

Cooperative agreements among competitors (existing or potential) may also have spillover effects as the collaboration might spread into other competitive activities, especially where the parties engage in several competing or potentially competing activities. This concern extends beyond the fact that it is unlikely for a market player to compete with its progeny in its line of commerce. The cooperative relationship creates, by its very nature, a close relationship between the parties. It puts the parents, particularly if they are competitors, in dangerous proximity to discuss and act jointly on aspects of their business apart from the cooperative arrangement and creates an aura of cooperative team spirit which is apt to dampen competitive fires between the firms involved. This concern is greater, the stronger the market position the relevant parties enjoy and the more elaborate their ties with other firms or joint ventures. Spillover effects may be especially significant if one partner enters into other joint ventures with different partners, which may deter the joint ventures from competing with each other.

This concern is especially important in small economies in which a small number of large conglomerates hold very large portions of industrial output and of the volume of economic activities. Conglomerates are often the main challengers of incumbent monopolies, often controlled by other conglomerates, given their substantial resources and varied experience which enables them to enter new lines of activity more readily than could a newly established or highly specialized firm. When

94 See, for example, the EC case of Wanto Schwartzpulver [1979] I C.M.L.R. 403, para. 30.
95 See, for example, the U.S. case of Northern Natural Gas Company v. FTC 399 F. 2d 953, 972; The Israeli Director's decision of Middle East Energy (not published).
96 See, for example, the EC case of Optic Fibres O.J. 1986 L 235/30 (There, Corning licensed its technology to several manufacturers of fiber optics, each operating within another state. The Commission stated that a network of joint ventures infringes article 85(1) when a provider of technology has a substantial interest and control over each and the market is oligopolistic. The concern was that Corning might use its control over one joint venture to prevent its expansion in order to protect another).
97 See Chapter 1 supra. Israel serves as an example of a small market dominated by few large conglomerates.
such large, diversified enterprises are few, they have an incentive to collude and allocate fields of business activity so as to minimize their competition with one another. In general, if there are many diversified enterprises the incentive to compete is substantial and the opportunity to work out satisfactory terms is slight, whereas if there are a few diversified enterprises competition is less attractive and collusion is easier. In a small economy, unless enterprises are international, there is room for fewer large diversified enterprises than in a large one. Hence, unless foreign trade is significantly influential, cooperative agreements among such conglomerates should be looked upon with considerable skepticism. Cross-holdings or joint ventures that may reduce future competition between these large players, even if they increase efficiency in the specific transaction in question, should be analyzed in a broader perspective, which takes into account the long-term dampening of competition between such conglomerates that can amount to geographical or product market division or to other cooperative or collusive behavior. This skepticism is notable in several small economies.98

A cooperative agreement in a concentrated market may also raise concerns of foreclosure, where firms with access to separate, scarce resources combine to create a monopoly and foreclose access to others to the resource.99

98 See, for example, the Israeli decision of Re Agreement to a Merger in accordance to sec. 21 of the RTPL 1988 between Columbus Capital Corporation and Car Industries, Ltd. (Jan 5, 1988, unpublished)(Merger case, emphasizing the importance of potential competition between conglomerates. In approving a merger between a conglomerate and a large firm, the Director required that the merged entity severe all its cooperative ties and joint ventures with other large conglomerates, and that it not have cross-holdings with another conglomerate in any entity in which one of them has control over the entity or holdings of more than 20% in one of the rights of the firm.) Mizrachi took this point to an extreme by proposing to view all joint ventures as restraints of trade. Miriam Mizrachi, "Joint Venture as a Restraint of Trade" (1994) 23 Mishpatim 233.

99 This is a main concern in the EC. See, for example, EC Commission decision in IGR Stereo Television (1981 and 1984) XIth and XIVth Competition Policy Reports, points 94 and 76, point 92 respectively (A trade association representing the German manufacturers of stereo television sets acquired the patent rights for two rival technologies for making these. It then granted licenses to its members, but declined to grant such a license to a Finnish manufacturer which was already operating in the German market. Due to Commission intervention, the association agreed to grant it licenses too, and reduced the price for such a license; Tetra-Pak 1 [1990] 4 C.M.L.R. 832 (Concerns about an acquisition which brought into joint control two competing technologies for treating milk to be placed in cartons aseptically. The Commission ensured that licensed technology was non-exclusive). This concern is especially important where the joint venturers hold high market shares, Kodak OJ (1997) C 330/10; DSD OJ (1997) C 100/4; IFCO OJ (1997) C 48/34. See also the Israeli case of Monopoly file 1/93 Director of Competition Authority v. Dubek; Hegelaim Iskii, supra, note 17, Vol. B., at p. 194; Director of Competition Authority v. Vitmar (unpublished)(Vitmar, a monopolistic manufacturer of veterinary drugs, entered into an exclusivity contract with Hahaklait, which is a cooperation which provides veterinary services to the agricultural markets, and which incorporates almost all of the veterinary doctors. Vitmar has allegedly agreed to sell its products only to the cooperative. The arrangement created a monopoly for the cooperative in the market for veterinary services).
The anti-competitive concerns raised by specialization agreements also go beyond restriction of competition in regard to the product covered by the specialization agreement. Especially where firms agree to buy exclusively from one another, this may facilitate collusive behavior. In such cases, firms compete in the same market, since they each produce parts of the same line of products, and supplement this by buying the remaining products from their rivals.

6.7.4 Appraisal of cooperative arrangements
The dual nature of many cooperative arrangements among competitors requires that their existence serve only as an invitation to further analysis, rather than a license for automatic condemnation. Such agreements should be appraised in light of their economic context to determine their overall effects on competition. As such agreements are often sui generis, the facts of each must be often examined before they can be classified.

The analysis has three basic steps: determining the potential restriction of competition; determining the pro-competitive effects of such agreements; and balancing the two. The following sections adhere to these three steps. Small size of an economy and the resulting concentrated structure of many of its industries gives rise to four important factors that should be given sufficient weight in the analysis:

- A small economy should consider the limited restraining force of potential entry in the circumstances of a highly concentrated market structure protected by high entry barriers. It should thus exhibit great sensitivity towards cross-holdings and joint ventures.¹⁰⁰

- The balancing of pro- and anti-competitive effects should include total welfare considerations in order to allow firms located in small economies to achieve lowest production costs which are important for productive efficiency, for competing effectively with imports, and for reducing inefficient product differentiation.

¹⁰⁰ See, for example, the Israeli cases of Iscar Sherutei Pladot Inc. v. the Director, Inc. Appeal 1/97 Competition Tribunal (11.12.1997)(unpublished)(A strict view by the judiciary of joint ventures); Middle East Energy, supra, note 95 (Refusal to grant exemption to a restraint of trade); Med-I (unpublished)(Refusal to grant exemptions to a restraint of trade).
• The balancing test should give much weight to dynamic efficiency considerations, which are vital for the ability of domestic firms to compete with foreign firms.

• The omnipresence of and the need for cooperative agreements in many markets creates a need for a cost-effective and timely review of cooperative arrangements.

A. The first step: Ascertaining the potential restriction of competition
Ascertaining the potential restriction of competition created by a cooperative arrangement is the first step in analyzing its effects. If the agreement has no or trivial restraining effects, then no competitive issue is raised. Factors to be taken into account include the structure of the market concerned and, in particular, the degree of concentration in the market, entry barriers into the market, the current and perceived future position of cooperators in the relevant market and other markets in which they operate, and historical data on collusive conduct in the relevant markets.

The issue of whether parties are potential competitors should be analyzed in light of the options that existed absent the cooperative arrangement. This can be exemplified by the Australian case of Melbourne Tug.¹⁰¹ There, authorization was sought for arrangements between two firms providing tug services in the Port of Melbourne to provide such services through a joint venture. The charges, terms, and conditions and the proportional division of joint earning were to be agreed upon by the parties. The Australian Trade Practices Commission authorized the agreement, based on the fact that public benefit resulted from the arrangement in that fewer tugs would be required for servicing normal port operations, faster service of shipping would be possible during peak and emergency operations, and available tugs would be utilized more efficiently. As to competition, although the pooling arrangement eliminated competition that would have existed between two separate operators, the TOC recognized that given the duopoly structure of the market, "competition between the two independent operators would be limited tending to be less on price and more in terms of faster service and innovation in the replacement of tugs." In other words, such an agreement increases productive efficiency while not necessarily changing allocative inefficiency.

¹⁰¹ Application of Melwrath McEacharn Ltd A4460, 31 July 1980.
The parties' ties with other firms or joint ventures should also be carefully evaluated. As noted above, this is especially important for small economies in which conglomerates may be prevalent. Where several conglomerates dominate the market, the concentration of ownership of its conglomerates must be scrutinized with care lest they be permitted to fortify their already substantial market power and to increase entry barriers.

The agreement is unlikely to raise competition concerns, however, where there is still strong actual or potential competition with many suppliers or the market lacks significant entry barriers. If firms do not possess market power we need not be especially concerned with how firms behave because the presence of effective competition provides a powerful antidote to any effort to exploit consumers. It is thus suggested that a de minimis rule be adopted which excludes from the scope of the law cooperative agreements that have no or minimal effect on competition or that their pro-competitive effects clearly outweigh their anti-competitive effect. Such a rule reduces administrative and litigation costs. It may also enable parties to waste no time on regulatory approvals. Such rules are also important in order to encourage pro-competitive competitor collaborations, by providing participants in future collaborations with a degree of certainty in those situations in which anti-competitive effects are so unlikely that the arrangements can be presumed to be lawful without inquiring into particular circumstances. This is specially important in small economies given the omnipresence of joint ventures and their importance to the well functioning of markets.

The EC, for example, has adopted a 5% threshold, under which if the arrangement is between parties that their joint market share does not exceed 5% market share of the relevant market, it will not be treated as a restricting agreement. Similarly, specialization agreements come under a block exemption if (a) the products which are the subject of the specialization and other products of the participating undertakings considered by consumers to be similar by reason of their characteristics, price or use do not represent more than 15% of the market for all such

102 SAFCO [1972] C.M.L.R. D 83 (Joint sales organization cleared by the Commission whereby small preserves manufacturers were able to penetrate the German market where they met substantial competition).
104 Notice on Agreements of Minor Importance (De Minimis) O.J. 1986 C/231/2; Case 5/69 Volk v. Vervaecke (1969) ECR 295.
105 Commission Regulation 2779/72.
products; and (b) if the aggregate annual turnover of the participating undertakings does not exceed 300 million units of account. As will be argued below, such a de minimis rule is much too strict for small economies.

The U.S. agencies have also declared that absent extraordinary circumstances they will not challenge a competitor collaboration when the market shares of the collaboration and its participants collectively account of no more than 20% of each relevant market in which competition may be affected. Also, research and development collaborations are not challenged on the basis of competition in innovation markets where three or more independently controlled research efforts in addition to those of the collaboration possess the required specialized assets or the characteristics and the incentives to engage in research and development that is a close substitute for the research and development activity of the collaboration. These safety zones do not apply, however, to agreements that are per se illegal, or that would be challenged without a detailed market analysis, or to arrangements that come under the merger regulation.

Small size may require the adoption of higher safe harbors than those adopted by the EU, or even the U.S., given that such agreements are often the only viable method for exhausting scale and scope economies. At the same time, higher safe harbors might enhance oligopoly coordination, especially where the market is already highly concentrated. A small economy may adopt the following safe harbors, which balance the potential pro-competitive gains from scale economies and the ability of firms to coordinate their conduct given the number and size of firms operating in the market as well as the homogeneity of the product. If the relevant product is to a large degree homogeneous, the agreement will not be challenged when the market shares of the participants in the collaboration collectively account for no more than 15% of each relevant market in which competition may be affected, and at least four other firms hold at least 10% of the market each. If the product is not homogenous, the agreement will not be challenged when the market shares of the participants in the collaboration collectively account for no more than 30% of each relevant market in which competition may be affected and at least two potential competitors hold more than 25% of the market each.

106 In addition, EC Regulation 418/85 exempts a limited class of joint ventures for research and development.
107 Competitor Collaboration Guidelines, supra, note 77.
Several small economies have adopted *de minimis* provisions. Australia, New Zealand and Canada, for example, require that the agreement, arrangement or understanding have the purpose or the effect of substantially restricting competition or of are likely to have such effect except in cases which are clearly exempt from a rule of reason analysis.108 Such *de minimis* rules are, unfortunately, absent from the competition policies of several small economies.109

B. The second step: Appraising the potential pro-competitive effects of the cooperative arrangement

Once it is determined that the agreement raises potential anti-competitive concerns, its potential pro-competitive effects should be ascertained. Such inquiry should evaluate whether the efficiencies from the agreement that are possible in theory are also plausible in the context of the particular collaboration, as the nature of the collaboration, not its designation, should be determinative. Efficiencies must not arise from anti-competitive restrictions in output or service.

In evaluating the increase in dynamic efficiency, where the cooperative agreement creates a new and better product or enables the parties to introduce such a product faster than each could have done on its own, factors to be considered include each party's ability to finance the operation independently, the productive capacity of each party, its familiarity with the process technology, the size of demand and distribution facilities of each party, as well as its ability to bear the risk.110 The Israeli case of *Deta-Kar*111 illustrates this point. There, three large insurance companies created a joint venture for acquiring the rights to use a specialized data analysis software for insurance purposes that reduced the costs of evaluating damage to vehicles. The three parent companies agreed to refrain from competing with the joint venture. They agreed, however, that all vehicle evaluators in Israel would be able to use the software. The Tribunal found that the agreement restricted trade. It

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108 *Ampl Petroleum Ltd and Newbold General Refractories Ltd.* C93-3-4 14 Oct. 1975 (Joint venture cleared on the basis that entry into the market was relatively easy and that large producers in the field could easily expand their production, even though the effect of the joint venture was to bring about increased market concentration.).

109 In Israel every arrangement that restricts competition, in any way, comes under the scrutiny of the law, Israeli *Restrictive Trade Practices Act*, Article 2(a).


111 HA 465/96 *Deta-Kar Inc. v. Director of Competition Authority* (7.7.96)
nonetheless approved it since the benefits from the joint venture outweighed the costs of the restraint to competition. It based its decision on the fact that the software would enable insurance companies to have better control over evaluators, that neither could have afforded to buy the software alone, and that it would reduce costs significantly. The Tribunal nonetheless placed limitations on the joint venture and the parties which included prohibition on the joint venture supplying its shareholders with commercial information regarding names of insureds, at least half of the directors would be unaffiliated with the parent firms and it would not expand its area of operation without the Director’s consent.

Small economies should thus include in their evaluation of the agreement’s pro-competitive effects total welfare considerations. Increases in productive efficiency may not only allow firms located in small economies to reduce their costs and increase dynamic efficiency, but may also be vital in order to enable domestic firms to compete effectively with larger foreign importers. This has been recognized by several small economies. The Canadian Competition Act, for example, mandates that in considering specialization agreements, the Canadian Competition Tribunal must give weight to gains in efficiency that will result in a significant increase in the real value of exports or a significant substitution of domestic articles or services for imported products.

C. The third step: Balancing the pro and anti-competitive effects

When a cooperative arrangement simultaneously permits parties to reduce allocative efficiency and has the potential to increase productive or dynamic efficiency, those effects must be balanced. Three major theoretical options exist. Under the first all arrangements that restrict competition are prohibited. Such per se rules may create
inefficient results for small economies, given that certain arrangements might be the only way to achieve allocative, productive and dynamic efficiency. The second extreme allows all arrangements that have some benefits. The third option balances between the pro and anti-competitive effects of the cooperative conduct and allows arrangements in which the pro-competitive benefits offset the restrictions on competition. I suggest that a small economy adopt the third option, as it allows it to enjoy productive and dynamic efficiencies as long as they offset the ancillary allocative inefficiencies.116

The importance of a rule of reason analysis to ancillary price arrangement for the ability of small businesses to compete with larger ones can be exemplified by the Australian and New Zealand exemptions from the per se ban on price fixing.117 Both laws exempt joint buying and selling activities from per se illegality if the price fixing agreement relates to the price for goods or services to be acquired collectively by the parties or the joint advertising of the price for the sale of goods or services collectively acquired. It is recognized that such agreements enable smaller entities to compete effectively with larger groups which would not be possible unless they join in some cooperative scheme with other small businesses operating at the same level as themselves.118 The Australian attitude to buying groups is reflected in the Trade Practices Commission's determination involving the application for clearance in the Pharma-Buy group case.119 The TPC granted clearance to a buying and promotion scheme involving 40 pharmacists in Melbourne. The group comprised a small portion of the relevant market, and outlets were geographically spread. The TPC stated that "it

marketed also Topco brand products. Members agreed to sell Topco merchandise only in their own assigned marketing territories. Each member's market share within its assigned territory averaged about 6% and entry barriers were low. The agreement allowed small competitors to compete effectively against large ones by pooling their resources for advertising or marketing. Nonetheless, the agreement was condemned. Several lower courts have nonetheless applied a rule of reason when horizontal market division was found to be ancillary to a joint venture. General Leaseways v. National Truck Leasing Assn. 744 F. 2d 588 (7th Cir., 1984) (Judge Posner criticized Topco for ignoring the threat of free riding). Similarly, in the EC the efficiency defense for cooperative agreements was interpreted as not applying where it eliminates effective competition, which has been defined by the Commission to be equivalent to "dominance" of the relevant market. See Hawk, supra, note 112, at p. 93; Bellamy and Child, supra, note 112, at p. 165-6.

116 See, for example, Section 58 of the Canadian Competition Act 1986.
117 Section 33 of the New Zealand Commerce Act 1986; Australian Trade Practices Act 1974, Section 45A.
119 E. F. Found Pty Ltd and William Hodge Pty Ltd CA272, 11 July 1975.
is clear that retail pharmacies, in this case, cannot regulate, control or significantly influence the price of the product in the market generally and that the effect of the promotion is to enable this small group of outlets more effectively to compete against other more substantial outlets in the market.\(^\text{120}\)

In addition, price recommendations are judged under a rule of reason.\(^\text{121}\) The Australian Commission recognized the importance of such recommendations where small firms compete with larger firms who have a larger proportion of the relevant market: “[I]n consequence, the association’s recommended prices may have little effect on general market levels, and may have their real significance in terms of providing a service that will save the small businesses valuable time (particularly in the multi-product situation), give them some check of some prices they might ‘need’ against what they feel they can ‘get’, and thus help them to judge their viability in the market”.\(^\text{122}\) In addition, both laws exempt certain joint venture pricing from the application of a per se rule.\(^\text{123}\)

Whilst these exemptions allow some price fixing arrangements to be evaluated under the rule of reason, they do not allow many other types of arrangements that may be ancillary to otherwise pro-competitive agreements. The exemptions do not apply, for example, to the joint advertising of services, nor the joint advertising of goods not collectively acquired, which may also be important for competition in concentrated markets. This has led one Australian court to suggest that the per se rule should not

\(^{120}\) Ibid. Compare to the U.S. case of \textit{U.S. v. Topco Associates, Inc.} 405 U.S. 596, 92 S. Ct. 1126 (1972). \textit{Topco} involved a cooperative association of small and medium-sized retailers which desired to cooperate to obtain high quality merchandise under private labels in order to compete more effectively with larger national and regional chains. Topco required exclusivity through trademark licenses specifying the territory in which each member could sell such trademarked goods. The District Court applied a rule of reason analysis and found that such restrictions were required to allow small retailers to compete effectively with larger ones, in order to prevent members from free riding on other members’ efforts to promote the trademark. The Supreme Court reversed, applying the per se rule of territorial restraints and prohibited the conduct. Application of a per se rule to territorial restraints in small economies could be harmful, as small competitors would be prohibited from using certain competitive methods in which the competitive benefits strongly outweigh potential harmful conduct in order to challenge dominant firms, which are much more prevalent in small economies.

\(^{121}\) Australian \textit{Trade Practices Act} 1974, Section 45A(3). The New Zealand \textit{Commerce Act} 1986, section 32 exempts from the per se rule price recommendations where the parties to the contract, arrangement, or understanding include not less than 50 members.


\(^{123}\) Australian \textit{Trade Practices Act} 1974, Section 45A (2); New Zealand \textit{Commerce Act} 1986, Section 31.
apply to any price fixing arrangement that improves competition. It is noteworthy that in both jurisdictions the competition authorities may grant an authorization, the effect of which is to immunize the conduct from legal challenge. The authorization provisions allow for the canvassing of efficiency arguments which a rigid application of the per se rule might otherwise stifle. Applicants seeking authorization must prove public benefit that outweigh the anti-competitive detriment.

Once a rule of reason is applied, the inquiry should focus on three questions: (a) whether the cooperative agreement is vital for the realization of the pro-competitive effects; (b) whether the potential costs of the cooperative arrangement are a necessary condition in order to achieve the pro-competitive benefits; and (c) whether the pro-competitive rewards outweigh the anti-competitive benefits.

I. Vitality: gains in efficiency would not likely be attained if the agreement were not implemented

The inquiry must first ascertain whether gains in efficiency would not likely be attained, absent the agreement, in light of the economic reality of the particular market. This first step is important in order to ensure that the pro-competitive goals are neither undervalued nor mask a reduction in competition. The cooperative arrangements is vital for the achievement of the pro-competitive effects, for example, where the technology and the other resources provided by each of the parties are complementary, or where the cooperative agreement creates a new product that no firm, acting alone, would have created given high costs or high risks. Several rules of thumb have may be applied for ascertaining the true nature of the agreement. For example, it should be verified that each party will appropriate the benefits of its own investment. This ensures that the arrangement is not used simply as a method to transfer some of the profits of one partner to another.

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124 Radio 2UE Sydney Pty Ltd v. Stereo FM Pty Ltd (1982) 4 ATPR 43, 913 ("If competition is improved by the arrangement I cannot perceive how it could be characterized as a price fixing arrangement.")

125 Section 30 of the Commerce Act 1986.

126 Commerce Act 1986, Section 58; NZ Vegetable Growers Federation Inc. Decision 206 (9/7/87).

127 See, for example, the Australian case of Woodside Petroleum Development Pty Ltd –North West Venture A18492, 15 Feb. 1977 (Authorization was granted to an arrangement to explore and develop natural gas on the north west shelf of Australia. The TPC found public benefit in the development of resources. It also stated that the joint venture was not replacing competitive development by any of the parties of the relevant gas resource as this was not a real alternative.)
As noted above, small size is likely to increase the need of firms to cooperate in order to increase productive and dynamic efficiency, given that firms may operate at sub-optimal scales or exhibit high degrees of product differentiation.128

II. The necessity of the restraints

Once the vitality of the agreement is determined, the necessity of the restraints to achieve the pro-competitive effects must be considered. Such analysis should take into account both the restrictions that are inherent in the cooperative arrangement as well as the ancillary restraints imposed by the parties upon themselves.

Restrictions that are inherent in the cooperative agreement should be evaluated in light of the current market structure and market conditions. Ancillary restraints imposed by the parties should be evaluated in light of their contribution to the achievement of the pro-competitive goals. In some cases, for example, substantial investment would not be made unless each party can ensure that it can appropriate the benefits of the investment by supplying an agreed proportion of demand or obtaining an agreed proportion of the results through dividends obtained from the cooperative arrangement. Limiting the ability of firms to impose such restraints would necessarily affect their incentives to engage in the cooperative conduct in the first place. In such cases, competition concerns are a by-product of the agreement’s benefits.

Several standards exist under which restraints can be evaluated. One option is to allow the restraints as long as they are “reasonably necessary” in order to achieve the pro-competitive goal. This approach has been adopted by the U.S.129 Under U.S. law, ancillary restrictions need only be reasonably necessary, making the main transaction more effective in accomplishing its purpose, and it is irrelevant that a slightly less restrictive provision can be devised with the advantage of hindsight.130 Nonetheless, if a significantly less restrictive alternative existed, which was reasonably available when the agreement was entered into given the practical business realities, then the restrictions will not be deemed reasonable.131

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128 See, for example, the Australian Trade Practices Act Review Committee: Report to the Minister of Business and Consumer Affairs (the Swanson Committee), 20 Aug. 1976, A.G.P.S. at para. 4.59.
130 National Bancard Corp v. Visa USA 779 F. 2d. 592, (11th cir., 1985) cert. denied, 479 u.s. 923 (1986); BMI, supra, note 82.
131 See, for example, Rothery Storage, supra, note 103.
A second option allows restrictions only if there exists no other less restrictive alternative that would allow the firms to achieve the pro-competitive benefits. Ancillary restrictions should be only as wide as can be justified as necessary to make the basic transaction viable. The EC Commission, for example, requires that the restriction on competition resulting from the challenged conduct be "indispensable" in the sense that it is the least-restrictive solution consistent with obtaining the beneficial goals of the conduct. An important question is whether the merger alternative should be evaluated, as virtually any efficiency that can be achieved through a joint venture can also be achieved through a merger, which may reduce costs even further. In evaluating the merger alternative, caution needs to be exercised. Simple agreements are more quickly reached and abandoned than mergers are, and firms do not have so much at stake. Also, compulsory merger would constitute a serious interference with freedom in economic activity and may produce even more serious anti-competitive effects.

The Australian courts have gone much further in allowing price restraints, where the conduct actually improves competition, even if they are unnecessary to achieve the pro-competitive goal. If the Radio 2UE case two commercial radio stations offered a joint rate card whereby purchases of radio time could buy time on both stations with one telephone call and one tape of advertisement. The stations arrived at the joint rate by aggregating their individual rates. Each station remained free to vary its price at any time. The court found that the joint rate card did not constitute a price fixing arrangement because each party established its own prices independently. The court suggested, but without deciding, that even if the parties had not been free to vary their rates at any time the joint rate card would have not constituted a price fixing provision. This decision injects a degree of flexibility which is difficult to reconcile with the wording of the law which deems price fixing arrangements to be anti-competitive, irrespective of their actual effect on competition.

The U.S. approach of allowing the restraints as long as they are "reasonably necessary" to achieve the pro-competitive goal might be superior to the EU approach of seeking the least restrictive alternative, as it reduces the danger of hindsight bias.

132 Hawk, supra, note 112. Korah argues that despite stricter language, the EC Commission seems to adopt a similar test in most cases Korah, supra, note 69, at pp. 287-8.
133 See, for example, the Israeli case of Poligar, supra, note 17.
Alternatively, the dangers of a wrong court holding can potentially be mitigated, even if the least restrictive alternative method is used, if burdens of proof are allocated correctly. Once pro-competitive effects that possibly outweigh the conduct’s anti-competitive effects are found, it is suggested that the plaintiff be granted the option to identify less restrictive methods to achieve the pro-competitive results. The burden then shifts to the defendant to prove that these methods were not open to it at the relevant time. The court should adopt an ex ante rather than an ex post perspective and ensure that the ultimate burden of proof remains on the plaintiff. This method of allocating burdens will potentially reduce some of the problems of applying the standard.

A variation on all above options is the restructuring of the parties’ arrangement, to include a less restrictive alternative. Two important limitations should be exercised by the enforcer. First, the restructuring of the deal should not affect, to the extent possible, the commercial balance of the agreement. This is especially important where the restructuring is done long after the contract was negotiated. Otherwise parties may not be able to rely on the contract to appropriate the benefits of their investment. It would also allow any party whose consent is needed in order to implement the change to renegotiate the bargain as a whole once the parties’ relative bargaining power has shifted. Fear of such conditions being imposed may deter some parties from investing resources in the formation of cooperative agreements. Second, the restrictions should be analyzed not only from their effect ex post, when the agreement has reached its term, but also on the incentives of firms ex ante to invest in such arrangements.

The restructuring of the agreement can be exemplified by the EC Optical Fibres case. There, the parties contributed complementary inputs. Corning, which patented a new technology, entered into joint ventures with several production companies. The concern was that Corning might use its control over one joint venture to prevent its expansion in order to protect another. The Commission granted an exemption only after Corning reduced its managerial control, the technology license

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135 See, for example, the conditions imposed by the European Commission on the parties in De Laval/Stirck [1977] 2 C.M.L.R. D 69 (The Commission provided that when the agreement terminated each party would be entitled to license of the technology that had been available to the joint venture on a most-favored-licensee basis in the whole world. The condition affected the commercial balance of the agreement since most of the use came from one of the partner’s technology.)

136 Korah, supra, note 69, at p. 295.

137 Optic Fibres, supra, note 96.
ceased to be exclusive, the territorial protection was reduced below that permitted by the patent licensing regulation, each party was entitled to expand the capacity of the joint venture, and the information about each joint venture’s prices and output was not passed on to others. The decision is troubling in that it may reduce the incentives of firms with superior technology to exploit their technology by granting numerous licenses. Following the decision, an owner of a technology may make higher profits by limiting the licensing of its technology to one firm only, in order to ensure it reaps monopoly profits, if barriers to entry into other markets are not high. In this case, given that barriers to entry were high (they were the main motivation for Corning’s entering into the joint ventures with European firms in the first place) each joint venture enjoyed some monopoly power in its own territory. Collusion was not necessary in order to obtain supra-competitive prices.138

One of the most important concerns raised by cooperative agreements among oligopolists involves foreclosure of a market to existing or potential competitors. This has led several commentators to suggest that where the agreement confers significant advantages on its parties it should not be approved unless the parties make their advantages available to all their competitors.139 EC Commission normally requires access to third parties where foreclosure may result.140 The analysis of such suggestions is similar, in many respects, to the regulation of an essential facility, which was the focus of Chapter 5 above. In short, the terms on which access is granted should not reduce significantly the incentives of the cooperating parties to engage in the cooperative conduct in the first place, if such cooperation has overall net positive welfare effects, or reduce significantly the benefits of the agreement.141

139 Kaysen and Turner, Antitrust Policy (1959) at p. 137 (If joint ventures confer significant competitive advantages, those advantages must be made available to all on reasonable terms).
140 See, for example, the Channel Tunnel requirement that some capacity be reserved for third parties Eurotunnel [1995] 4 C.M.L.R. 801.
141 This can be exemplified by the EC case IFCO. The case involved an creation and operation of a transport packaging system for fruit and vegetables, under which the traders who participate in the system have agreed to prefer goods delivered in IFCO crates to the exclusion of all other packaging, for exchange for lower transportation costs. In effect, the agreement amounted to a joint purchasing agreement between competitors holding a significant share of the relevant market, in respect of an input whose costs accounted for a large share of the total costs incurred by the participating undertakings. The Commission considered that the system was liable to infringe Article 85(1) on the grounds that it was liable to exclude manufacturers of alternative transport packaging, and distorted competition between other traders. In order to address the Commission’s concerns, IFCO took to promote the system as a product marketed exclusively by it, instead of a horizontal exclusivity agreement among traders. Each supplier was therefore free to select the most attractive transport packaging and
III. The Benefits Outweigh the Costs

The third stage involves assessing the likelihood and magnitude of efficiencies and anti-competitive harms to determine the agreement’s overall actual or likely effect on competition in the relevant markets, and whether the cognizable efficiencies would be sufficient to offset the potential of the agreement to create anti-competitive harms.\(^\text{142}\)

This comparison is necessarily an approximate judgement, based on the perceived likelihood and magnitude of these effects. The burden of proof that the arrangement creates net pro-efficiency effects should be the preponderance of evidence.

The Israeli case of Poligar\(^\text{143}\) may serve as an interesting example of the dilemmas likely to be faced by small economies in balancing the agreement’s pro and anti-competitive effects. The facts of the case can be stated briefly as follows. Two leading Israeli manufacturers of polietilen covers for agriculture created a distribution joint venture which sells their produce according to a jointly agreed price scale. The joint venture allowed the two firms to realize economies of scale in distribution which were necessary in order to allow domestic firms to compete efficiently with imported products. At the same time, it eliminated competition between the two manufacturers, since it enhanced collusion with respect to prices or market division. From a consumer’s point of view, the two competitors have, in fact, become one. In fact, the distribution function may even be more important to competition than the manufacturing function, the reason being that even if the products of the potentially competing companies differ in price or in quality, this information usually reaches the consumer through the distribution channel. Further, the distribution function sets the

\(^\text{142}\) See, for example, the Israeli Restrictive Trade Practices Act 1988, Section 10; H.A. 466/95 Idan Cable Co. Inc. v. Director of Competition Authority (not published). P. 21. The substantiality test in the New Zealand Commerce Act 1986, section 27 and the Australian Trade Practices Act 1974, section 45 has been interpreted as concerned with the net effects on competition, after the anti and pro competitive effects have been balanced. See, for example, the New Zealand case of Fisher & Paykel Ltd v. CC (1990) 2 NZLR 731

\(^\text{143}\) Poligar, supra, note 17, p. 108.
price for the manufactured products, a decision which is based on the current market conditions which take into account, *inter alia*, the interchangeability and the price of competing products. Where distribution channels are jointly held and operated, price collusion is almost inevitable.

The Director of the Israeli Competition Authority cleared the joint venture for a period of two years, to be extended, if deemed appropriate, by him at the end of this period. In reaching his decision, the Director emphasized the fact that the small size of the Israeli market does not enable firms the size of the entities in the pre-venture situation to attain scale economies in distribution and in manufacturing. Importers, on the other hand, produce on much larger scales due to their larger domestic demand. The venture thus enables the domestic manufacturers to compete more effectively with foreign importers by reducing their distribution costs. Moreover, collusion is limited by foreign imports which place a price-cap on Israeli manufacturers. The Director did, however, restrict the venture by prohibiting, *inter alia*, tying of products and exclusive dealing.

The decision is interesting since the clearing of the joint venture allows the two manufacturers to overcome a comparative disadvantage they have in their *manufacturing* activities over foreign importers by allowing them to reduce their *distribution* costs. In fact, the decision sacrifices competition among Israeli firms in order to enable such firms to compete effectively with more efficient importers. While the joint venture would not necessarily reduce prices to consumers, it might prevent a price rise if, otherwise, domestic manufacturers would have to exit the market and importers could raise the price absent such competition. As long as there is potential effective import competition, the effect of such a joint venture on competition is minimal, unless it creates high hurdles to the entry of foreign importers, for example, by controlling an essential facility.

In theory, if importers face similar distribution costs when selling their products in the Israeli market, and if there is no room for more than one distribution system in Israel, costs could be minimized by enabling the importers to establish a distribution system that would realize scale and scope economies, and thus reduce their costs of serving the Israeli market even further. Such an option was not before the Director. Further, it may well increase price to consumers, given that importers would not face any competition from domestic manufacturers, especially if imports
were concentrated. The effects of lowering the costs of importers of serving the domestic market depend, \textit{inter alia}, on the number and the cost curves of competing importers, the additional barriers to entry they face when serving the Israeli market, and the size of real cost savings in a consolidated distribution system.

6.4.5 Procedural aspects

The regulatory procedure may have significant impact on the incentives of the parties to engage in the cooperative agreement in the first place. This may be so where time is of essence, where reaching an agreement requires the parties to share with other parties confidential information, or where the costs of the regulatory procedure may outweigh the benefits of the agreement. In addition, a timely decision is important since the parties may not compete during the negotiations on an agreement. Accordingly, devising a cost and time-effective procedure is of great importance.

While an extensive review of regulatory procedures is not the focus of this study, several general guidelines are suggested.

First, it is important that clear guidelines exempt from the scope of lengthy and costly regulatory procedures all agreements that are not likely to be challenged. Many jurisdictions have adopted such guidelines that apply to clear-cut cases.

Second, a low-cost and timely procedure should provide clearance for those agreements that do not require an extensive analysis in order to determine their overall effects. Under the Israeli \textit{Restrictive Trade Practices Act}, for example, the Director of the competition authority is empowered to exempt an agreement from the need for an approval if she is convinced that the arrangement does not restrict competition substantially. This is essentially a \textit{de minimis} exception. The Director may set conditions or limitations which would soften the injury to competition which might result from the agreement. The Australian and New Zealand

\begin{itemize}
\item \textsuperscript{144} Israeli recent negotiations between the paper producer duopolists. Based on interview of the chief economist of the Israeli Antitrust Authority.
\item \textsuperscript{145} See, for example, U.S. Competitor Collaboration Guidelines, \textit{supra}, note 77 (Safety zones); EC block exemptions.
\item \textsuperscript{146} Israeli \textit{Restrictive Trade Practices Act} 1988, Article 14.
\item \textsuperscript{147} See, for example, \textit{Re Negev Ceramics - Shaish Aloni} (not published)\textit{(The parties’ combined market shares did not exceeded 25% of the market)}; \textit{Re Railroad and Port Authority- Zim Israeli Shait Co. Inc. and Tim Land Transportation Inc et al.} (not published)\textit{(The parties operated in different markets, thus the agreement posed no substantial threat of restricting competition.)}
\end{itemize}
authorities are also empowered to grant an authorization for an otherwise restrictive agreement.¹⁴⁸

Third, the procedure must provide timely guidance even for those agreements that necessitate a more thorough analysis of their effects on trade. The Israeli Competition Tribunal, for example, may grant a temporary approval, until a final decision would be made as to the agreement if three cumulative conditions have been met: the Director has so recommended, the Tribunal has been persuaded that on its face the agreement is in the public interest, and the approval is for a limited period, not exceeding one year. Similarly, The European Commission has stated that it will send a comfort letter within two months of receiving full notification of a structural joint venture, i.e. one involving substantial investment, unless it has serious doubts whether it is compatible with the common market. It has also stated that it will not depart from comfort letters unless it facts have been misrepresented or circumstances have changed.¹⁴⁹

Finally, resources for implementing a regulatory procedure are of essence. The EC experience has clearly demonstrated this need. Due to lack of resources the Commission grants only about four individual exemptions for joint ventures a year.¹⁵⁰

6.5 Regulation of Conscious Parallelism

Conscious parallelism is one of the most significant market imperfections in small, concentrated economies. The regulation of conscious parallelism has generated a vigorous debate amongst economists and legal scholars. This chapter surveys the theoretical arguments for and against the regulation of mere conscious parallelism and examines their validity and strength in the context of small economies. An innovative remedy that can help overcome some of the obstacles to traditional regulation is proposed in Section 6.7 infra.

6.5.1 The Debate

Most jurisdictions do not regulate conscious parallelism. In the U.S.¹⁵¹ and the EC¹⁵² courts have unambiguously stated that conscious parallelism, by itself, is not

¹⁴⁹ The EC Commission's XXInd Report on Competition Policy, p. 81 points 123-4; Korah, supra, note 69, at p. 294.
¹⁵⁰ Korah, ibid.
¹⁵¹ Korah, ibid.
regulated by competition laws, although it is occasionally argued that the relevant competition laws are capable of reaching such conduct. Most small jurisdictions follow in these footsteps, including Australia, New Zealand, Canada, Malta, and Israel.153 Three main factors have so far tipped the scale against the regulation of conscious parallelism: equitable considerations, remedial issues, and the scope of the problem. The following sections analyze these factors with a focus on their application in the context of small economies.

A. Equitable considerations

Proponents of equitable considerations154 argue that it is unfair to condemn parallel conduct, as such, since the firms involved are acting rationally in light of the structure of the market whereby each firm is forced by circumstances to consider its own profit-maximizing rate of output, given the outputs of its rivals and their anticipated responses to its own price and output decisions. To ignore these issues would require firms to act irrationally by closing their eyes to the immediate and direct impact of their actions on the market equilibrium. Put differently, since conscious parallelism is dictated by market structure it is unjust to condemn it as conspiratorial or as abusive of a collective dominant position and to enforce fines. This is especially so since oligopolists are not necessarily the creators of oligopolistic market structures. It may


153 See, for example, Section 5 of the Maltese Competition Act 1994 virtually reproduces sections 85 and 86 of the EC Treaty of Rome. Guidance in interpreting the Act is sought from the EC jurisprudence, especially in light of the schedule attached to the Act that enjoins the adjudicating body to base its interpretation and application of the Act on EC experience whenever this is appropriate. For Australia see ACCC v. Mobil Oil Australia Ltd (1997) ATPR 41-568; Email, supra, note 36; Trade Practices Commission v. J J & Y K Russell Pty Ltd (1991) ATPR 41-132 (A service station proprietor who has convened a meeting of service station proprietors at a local hotel to discuss forming an association was surprisingly found not to have been a party to an arrangement made at the meeting to increase petrol prices, even though he increased his price to the price discussed at the meeting, because he had not been involved in the pricing discussion"). For New Zealand see ARA v. Mutual Rental Cars (Auckland Airport) Ltd. (1987) 2 NZLR 647; NZ Magic Millions Ltd. v. Wrightson Bloodstock Ltd. (1990) 1 NZLR 731, 765. For Canada see Atlantic Sugar Refineries Co. Ltd et al. v. A. G. Canada 41 c.c.c. (2D) 209, 91 D.L.R. (3D) 618 (Ct of Appeal); Atlantic Sugar Refineries Co. Ltd et al. v. A. G. Canada (3d) 289 (N.S.S.C.) (1980)(S. Ct).

154 Donald F. Turner, "The Definition of Agreement under the Sherman Act: Conscious Parallelism and Refusals to Deal" (1961-2) 75 Harv. L. Rev. 655.
well be that for regulation of oligopolistic markets new legal tools may need to be adopted. Also, it is unfair since firms act in the same manner as do firms in a completely competitive market. The rational oligopolist is simply taking another factor into account, which is the reactions of his competitors to any price or output change that he makes.\textsuperscript{155}

These equitable considerations hold equally in large and small economies. In both, nonetheless, they apply most strongly where conscious parallelism creates civil or criminal liability. They have limited applicability where the conduct itself is not condemned, but simply regulated.

Several commentators have questioned the validity of these equitable arguments. Posner\textsuperscript{156} has argued that conscious parallelism "is not an unconscious state."\textsuperscript{157} Rather, "in forbearing to seek short-term gains at each other's expense in order to reap monopoly benefits that only such mutual forbearance would allow, A and B are like parties to a unilateral contract, which is treated by the law as a concerted rather than individual behavior...One seller communicates his "offer" by restricting output, and the offer is "accepted" by the actions of his rivals in restricting their outputs as well."\textsuperscript{158} While such conduct it is made easier by market structure, it is not compelled by it. Structure may eliminate the need for explicit agreement, but coordinated pricing still requires action from which tacit agreement could be inferred. Posner further argues that even if coordination is economically rational from the perspective of the individual actors, this is not a decisive objection to applying prohibitions against collusion, just as it is not objectionable in the case of explicit forms of collusion. The essence of his position is that "in terms of the substantive economic objectives of antitrust policy, it is a detail whether a cartel is buttressed by all or any of the facilitating devices that cartels in markets not governed by the Sherman Act employ, or whether it achieves its end of purely [conscious parallelism];

\textsuperscript{155} \textit{Ibid.}


\textsuperscript{157} Posner, \textit{ibid.}

\textsuperscript{158} \textit{Ibid.}
in either case the objection is to the cartel price rather than to the means by which that price is set initially and then maintained.”

Posner would thus condemn mere parallelism by creating a “constructive conspiracy” on the basis of evidence of conduct and performance that he defines as inconsistent with competitive conduct. A showing of a concentrated market structure and voluntary pricing conduct—such as signaling and response or price leadership, could support an inference of tacit conspiracy. Other relevant factors would be oligopoly firms’ refusal to offer discounts in the presence of prolonged excess capacity, market shares fixed over time, infrequent price changes, and abnormally high profits.

Hay has also questioned the validity of the equitable considerations. He argues that both collusion and conscious parallelism necessitate mutual awareness and acceptance of consensus industry price and mutual confidence that all firms will adhere to that price. Whether formal collusion is necessary depends on the complicating factors present. Where conditions are extremely favorable, no overt acts are required to establish the conditions, and a noncompetitive price is established and maintained solely by pure oligopolistic interdependence. No less of a meeting of minds exists when oligopolists with identical costs and standard products select identical prices and recognize the folly of price cutting, than when several manufacturers with widely different costs agree to charge an identical price. These criticisms are problematic, since in following A’s actions, B may simply have assessed the market, and come to the same conclusion. Once firms discover the optimal price, it will be in the best interest of all firms to adopt it.

It is noteworthy that Turner, who was the strongest proponent of the equitable considerations, later modified his views concerning the applicability of the antitrust laws to oligopolies. He reasserted his position that conscious parallel conduct by oligopolists could not be reasonably attacked as a conspiracy, but suggested that

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159 Ibid.
160 Ibid.
161 Hay, supra, note 46.
162 Ibid.
exclusionary behavior without adequate business justification by oligopolists could be deemed an unlawful attempt to monopolize.

Areeda adds that controlling oligopolistic prices would be incongruent with the toleration of monopoly pricing, where such pricing is tolerated.165 This concern should not, however, be decisive if controlling the prices of oligopoly is the best way of achieving competition policy’s goals. If such goals can be achieved by applying one regulatory method in one market structure and in a different market structure by another, this difference should not prevent their adoption unless it affects the incentives of market participants to engage in more competitive conduct or wasteful activities under either market structure. Regulation of oligopoly pricing and toleration of a monopoly pricing would create strong incentives for firms to become monopolists. Firms would invest more resources in gaining competitive advantages that would not only permit them to enjoy supra-competitive profits, but would also free them from direct regulation. Assuming that firms are prevented from reaching monopoly positions by engaging in illegal actions, pricing regulation of oligopoly would strengthen the incentives of firms to achieve productive efficiency. Such a policy may nonetheless elevate the concern that firms will invest wasteful resources in becoming monopolists. It might also affect the tendencies of regulators to adopt a stricter merger policy which would prevent firms from realizing scale and scope economies.

B. Remedial concerns
The second major concern is remedial. Most commentators concede that oligopoly pricing cannot be improved by a simple prohibition of mere conscious parallelism.166 This point was expressed by Justice (then judge) Breyer, who found that oligopoly pricing does not violate the Sherman Act “not because such pricing is desirable (it is not), but because it is close to impossible to devise a judicially enforceable remedy for ‘interdependent’ pricing. How does one order a firm to set its prices without regard to the likely reactions of its competitors?”167

165 Areeda, supra, note 15.
166 Richard Posner is among the few that argued that current antitrust prohibitions can be used to regulate oligopoly pricing. Posner, supra, note 156. Posner does not, however, provide solutions for the problems of setting and monitoring a competitive price by the courts.
167 Clamp-All Corp. v. Cast Iron Soil Pipe Institute, 851 F.2d 478, 484 (1st Cir. 1988).
The problematic nature of a simple prohibition of conscious parallelism can be illustrated by the Canadian Atlantic Sugar case. In this case, three refining companies produced almost 100 per cent of the sugar refined in Eastern Canada. The three firms were indicted for a conspiracy to lessen competition unduly. The evidence pointed to parallel pricing as a result of independent decisions, based on historical market shares. The initiating firm decided to end price wars by restricting price cutting to do no more than restore its historical market share. It felt confident that its competitors would realize what was being done and would also be satisfied to keep their historical market shares. Not only were competitors immediately aware of its list price the moment it was posted in its lobby, but they were also able to discover its pricing formula by a process of deduction from available data. The Quebec Court of Appeal found tacit collusion, although this was, presumably, nothing more than conscious parallelism. The firms were acquitted on further appeal to the Supreme Court of Canada. Under market conditions where the product is homogenous and the small number of firms operating in a market protected by high entry barriers (government-created quotas on imports), there is no need for special signaling. Once one firm raises its price, its competitors may learn of this price increase immediately through customers. They will then have a strong incentive to match this price. Requiring the sugar refineries to price their products without taking into account their rivals' prices is, in such market conditions, highly problematic. Several other tools have been proposed to remedy conscious parallelism, which will be surveyed below.

Reduction or Elimination of Artificial Entry Barriers

An important tool for changing the market conditions which are conducive to oligopolistic coordination involves the reduction or elimination of artificial entry barriers. The lowering of such barriers may enable new firms (both domestic and foreign) to enter the market and break down the oligopolistic conduct. Alternatively, it would reduce the ability of oligopolists to raise prices to supra-competitive levels.

168 Atlantic Sugar, supra, note 153.
169 Ibid. Dunlop et al., supra, note 9, at p. 134-5.
170 Atlantic Sugar, supra, note 153.
171 See also the U.S. case of Sugar Institute v. U.S. 297 U.S. 553 (1936)(The court did not find a violation in the practice of "moves" by which price increases were announced in advance with opportunity for customers to order at the old price during a specified period. Nonetheless, the court condemned the agreement to charge only published prices and not grant secret price concessions as an unreasonable agreement).
The British MMC, for example, recommended the reduction of government-created barriers to entry into the postal service market in order to reduce oligopolistic coordination. Such a remedy is possible, nonetheless, only in markets which are protected by artificial entry barriers.

**Direct Regulation of prices**

Direct price regulation requires courts to fix prices for oligopolists at a “reasonable” or “competitive” level. Such a remedy raises important issues of competence and of monitoring. Writing and implementing a price command compels marginal-cost pricing. Such pricing may be extremely complicated if firms have different cost structures or differentiated products. Moreover, given the inherent incentives of oligopolists to set prices at higher than competitive levels, price regulation would entail on-going monitoring of prices in the market. It also involves serious risks of unpredictable and *ex post facto* penalization of firms.

**Direct Regulation: Price Freezes**

Bishop has suggested a novel and creative remedy to the problem of oligopolistic coordination that builds on the fact that oligopolists are potential competitors in the market in which they operate. Under his proposal, once it is found that an industry has engaged in supra-competitive pricing, some administrative agency will freeze each oligopolist’s price for a considerable period that is “long enough that any firm bidding prices substantially higher than the lowest bidder would suffer severe losses— and perhaps bankruptcy”. A high price would then become perilous if significant rivals charge a lower price. To put all firms in the same initial position, the administering agency would presumably require each firm to submit its future market price in a secret “bid” to the agency, and would then promulgate the results to be effective on a uniform starting date.

While this proposal has some interesting features, it suffers from several serious drawbacks, some of which are acknowledged by Bishop himself. Most importantly, the proposal involves a high degree of on-going intervention in the

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market since the antitrust authorities must prevent all firms from charging lower prices than their bid price, or else firms will not have incentives to bid low prices. Moreover, it creates a strong possibility of concentration-increasing bankruptcies in markets with significant entry barriers. In addition, it does not allow firms to reduce costs based on productive efficiency realized during the price freeze (due, for example, to a new innovative production technique). Also, it might encourage more product differentiation to avoid its consequences. Finally, it does not allow firms to react effectively to new market entrants. Other problems remain, such as the distortion of competition among buyers, etc.

Structural Remedy: Market Restructuring

The high costs of oligopolistic prices and the fact that they result from highly concentrated markets has led to several proposals for selective restructuring of persistently non-competitive oligopolistic markets, subject to an efficiency defense. The essence of these proposals is that since oligopolistic interdependence is based on high concentration levels, reducing such levels by way of break-up of existing rivals into smaller competing units would hinder the natural conditions that are required in order to sustain oligopolistic interdependence. A variation on this proposal involves inhibiting the creation of market structures that predispose firms to oligopolistic interdependence.

While restructuring may holdout, in theory, the potential for reducing concentration and thus interdependence, there are numerous obstacles to its efficient and effective application. As these obstacles were surveyed, in length, in chapter 4.1 above, we shall only state them here briefly. First, restructuring may be very costly in

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176 Ibid
177 Areeda, supra, note 15, at section 1432d.
178 For studies confirming or rejecting the market concentration-high profits doctrine see Chapter 1, supra.
179 See, for example, the U.S. White House Task Force on Antitrust Policy (1969) recommended the adoption of the Concentrated Industries Act which would require the reduction of concentration in any industry in which four of less firms had an aggregate market share of 70% or more, subject to an efficiency defense; Turner recommended divestiture where a shared monopoly charge is proven, reasoning that only by changing the market structure is it likely that the incentives to engage in coordinated behavior inherent in oligopolistic markets can be changed. Turner, supra, note 164; Article 13 of the Munich Code 64 Antitrust and Trade Reg. Rep. (BNA) (Aug, 19, 1993) suggested by a Munich group as a draft GATT plurilateral agreement provides for restructuring firms in anti-competitive, highly concentrated markets where the market structure induces persistent abuses of significant market power adversely affecting at least one other nation.
180 Turner, supra, note 164.
terms of public and private resources consumed in preparing, defending, and litigating issues. Second, exogenous interference with existing market structure may interfere with high profits that signal the need and provide the incentive for additional resources and expanded output in the industry, which in time should return profits to normal level. Third, it is questionable whether a court of law would be able to differentiate between large sizes of firms based on economies and those which are not and whether the structural change will yield a price increase or a price decrease.  

Finally, some concentrated market structures may, in fact, be efficient. High profit rates may reflect innovation, exceptional efficiency, or growth in demand outrunning the expansion of supply. A program of combating oligopoly by restructuring these markets would result in a loss of productive efficiency that may well exceed the social costs caused by oligopoly performance and may also require on-going regulation, where the natural tendency of the industry is to reach sizes that minimize production costs. This last factor is especially important for small economies as many concentrated structures are justified by minimum efficient scales of production. In view of the over-fragmented industrial structure present in many small economies, improvement of industrial structure usually means either the creation of fewer and larger firms in each industry (merger) or some arrangements between existing firms for the purpose of standardization of products, specialization of plants, joint exports and so forth. This requires consolidation of plants rather than divestiture of firms.

Accordingly, restructuring remedies ought not to be attempted where unnecessary because the market works tolerably well, where futile because no efficient restructuring is possible, where premature because the market is not yet seen to be indefinitely resistant to substantial correction by growth of small firms or new entry, or where the market is not substantial in its overall effect on welfare or is not substantially non-competitive. Restructuring should be attempted only where it is certain that performance can thereby be substantially improved. Otherwise,

181 Industry performance may nonetheless provide some hints. If both giant firms and fringe firms earn supra-normal profits in a homogenous product market, that would indicate that economies of scale are not substantial and collusion is occurring. By contrast, if the large firms are earning supra-competitive profits while small firms are earning only competitive returns, that suggests that minimum efficient scales account for the concentration. Hovenkamp, supra, note 25, at p. 164.

182 See chapter 4.2 supra.

183 Schefer, supra, note 35.

184 Areeda, supra, note 15, at sec. 1432f.
consumers may be best off if firms are permitted to attain efficient sizes, with competition laws used to make price coordination as difficult as possible.

C. The scope of the problem
The above considerations, and particularly the difficulty in devising an efficient remedy for combating conscious parallelism, have led most jurisdictions to leave conscious parallelism to the (admittedly limited) disciplining forces of the market. Large economies, such as the U.S. and EC, have also based such decisions on the fact that the perceived occurrence of mere conscious parallelism is low. It is believed that the kind of classic oligopolistic interdependence that, by itself, suffices to produce seriously noncompetitive performance in large economies is likely to be rare. In most industries complicating factors exist, and in their presence it is unlikely that an oligopoly will achieve a joint-profit maximization absent some facilitating measures.\textsuperscript{185}

Conscious parallelism is more widespread in small economies than in large ones. The small size of an economy affects the existence of market conditions that enable firms to achieve supra-competitive outcomes without explicit agreements. Two of the most important conditions that facilitate cooperation and enable oligopolists to set prices at supra-competitive levels— a small number of competitors and high entry barriers into the market— are much more prominent in small economies than in large economies. Accordingly, some degree of interdependence is omnipresent in various degrees in a widespread number of cases and conscious parallelism poses a more significant problem for small economies than for large ones.

Whatever the size of the economy, the case for regulating conscious parallelism is strengthened by the fact that is it extremely difficult to prove and distinguish conceptually conspiratorial agreements from parallel conduct resulting from independent decisions based on the recognition of mutual interdependence. Jurisprudence has shown that the line differentiating between the two is extremely thin: the type of degree of coordination which takes the conduct out of the realm of conscious parallelism and allows the courts to infer an illegal agreement is very elusive. Moreover, since a conspiratorial agreement creates, in most jurisdictions, a

\textsuperscript{185} See, for example, David Scheflin, "Commentary on 'Oligopoly Power, Coordination and Conscious Parallelism'" in Mathewson et al., supra, note 7, at p. 295.
criminal offense, ambiguous cases are commonly decided in favor of defendants. These facts mandate a more serious debate over the regulation of conscious parallelism. Alternatively, they underscore the need for the creation of clearer guidelines that will enable courts to distinguish between collusion and conscious parallelism. The following paragraphs exemplify some of the conceptual problems which arise when differentiating between the two.

The main question is when does a persistent course of action ripen into a shared convention of expected and confidently predicted action that is sufficient to establish an illegal agreement.\(^{186}\) Construction of an agreement is most problematic in cases of unilateral conduct which signals to other market participants which course of action will be taken by the signaling firm. Is an advance announcement of business plans where a market participant expects, knowing the pressures of an oligopolistic market or based on past conduct, that its rivals will adjust their conduct in a parallel fashion, sufficient to establish a tacit agreement or is it merely conscious parallelism? What if rivals could have learned about the price rise immediately anyway given the existing market conditions? Should oligopolists that follow a price leader be considered as a group acting together, or individual competitors who are concurrently acting in the same manner, in reaction to a change in market condition where a failure to match their rival’s conduct would be disadvantageous or even fateful? Should a newcomer that conducts its business in the same fashion as existing oligopolists be condemned of illegal agreement? The answers to those questions are crucial to any legal inquiry that seeks to differentiate between conscious parallelism and a conspiratorial agreement.

No jurisdiction has provided clear answers to these questions. The difficulties involved in differentiating between conscious parallelism and covert agreement to collude can be illustrated through the treatment of price leadership and through the definitions of illegal agreements adopted by different economies. While all jurisdictions clearly state that conscious parallelism does not constitute a violation, the definitions of illegal acts differ significantly from one jurisdiction to another and even within each jurisdiction.

Different jurisdictions have reached different conclusions where a pattern of price leadership develops whereby one firm raises its price and this acts as a signal to

\(^{186}\) Areeda, \textit{supra}, note 15, at p. 68.
the others to follow suit, based on an understanding that firms in the industry will follow the signal emitted by the price leader. In the U.S. price leadership in the absence of evidence of collusion is lawful. The Canadian Atlantic Sugar case and the Australian Email case, reviewed above, illustrate a similar position. In the EC price leadership might constitute a violation. In the Belgian Roofing Felt case, for example, it was found that seven of the roofing felt industry members had fixed prices through a trade association. Two non-members of the association were also held to have engaged in an anti-competitive agreement, although they argued that there was no agreement between them and the seven members. To the extent they had given the impression that they would follow the conduct of the trade association members, they claimed this was done because they feared retaliation. The Commission rejected their argument, stating that the mental state of those firms and the reservations they might have felt did not mean that they did not enter into an agreement.

The difficulties involved in differentiating between conscious parallelism and illegal collusive agreements can be illustrated through the experience of the EC. The Treaty of Rome prohibits "concerted practices" that restrict or reduce competition. In Dyestuffs illegal conduct was interpreted by the ECJ as "a form of coordination between undertakings which, without having reached the stage where an agreement properly so-called has been concluded, knowingly substitutes practical cooperation between them for the risks of competition." This definition seems to be so wide that it could catch conscious parallelism or price leadership even if there is no collusion between firms, since both involve a knowing substitution of practical cooperation for the risks of normal competition.

Later decisions have not succeeded in clarifying the distinction between legal and illegal acts. In the Sugar Cartel case, the ECJ held that there is no concerted practice if undertakings operate independently and may adapt themselves intelligently to the existing and anticipated conduct of their competitors. It added that Article 85 strictly precludes "any direct or indirect contact between such operators, the object or

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190 Ibid, ECR 619, CMLR 64.
191 Korah, supra, note 69.
effect whereof is either to influence the conduct on the market of an actual or potential competitor or to disclose to such a competitor the course of the conduct which they themselves have decided to adopt or contemplate adopting on the market."\textsuperscript{193} In \textit{Zuchner}\textsuperscript{194} the court added that parallel conduct could amount to concerted conduct if it is proven that "such parallel conduct exhibits the features of coordination and cooperation characteristic of such a practice and if that practice is capable of significantly affecting conditions of competition in the market."

The vagueness of these definitions subjects their application to interpretation. Some commentators argue that they are vague enough to condemn parallel action as a concerted practice, as oligopolists knowingly substitute practical cooperation (through coordination) for competition.\textsuperscript{195} The ECJ, nonetheless, has clearly stated that parallel conduct itself may not amount to a concerted practice.\textsuperscript{196} Some commentators suggest that the requirement that there should be deliberate substitution of cooperation for competition imports the notion that there must be some mental consensus involving the mutual acceptance of obligations between undertakings; this can be distinguished from purely parallel behavior which lacks this element of obligation.\textsuperscript{197}

In practice, findings of concerted practices have usually been based on evidence of some sort of contact between firms. The high burden of proof on the Commission to prove the existence of a concerted practice (beyond reasonable doubt), and to deal with any alternative explanations of parallel conduct, has led to many cases being overturned by the ECJ.\textsuperscript{198} The case law can largely be interpreted as condemning facilitating practices.\textsuperscript{199}

The interpretation of the collusive agreement requirement in Australia, New Zealand, Britain, and Canada also illustrates the difficulties involved in drawing the

\textsuperscript{193} (1942) CMLR, 425.
\textsuperscript{195} Valentine Korah, "Concerted Practices" (1973) 36 MLR 220.
\textsuperscript{197} Whish, supra, note 70, at p. 481.
\textsuperscript{198} \textit{Ibid}, at p. 209; Green "Article 85 in Perspective: Stretching Jurisdiction, Narrowing the Concept of a Restriction and Plugging a Few Gaps" (1988) 9 ECLR 190.
\textsuperscript{199} Dyestuffs, supra, note 152 ("although every producer is free to change his prices, taking into account in so doing the present or foreseeable conduct of his competitors, nevertheless it is contrary to the rules on competition contained in the Treaty for a producer to cooperate with his competitors, in any way whatsoever, in order to determine the coordinated course of action related to a price increase and to ensure its success by prior elimination of all uncertainty as to each other's conduct regarding the essential elements of that action, such as the mount, subject-matter, date and place of the increases." Para. 118.)
line between conduct that comes under the scope of the provisions and conscious parallelism. The Australian Trade Practices Act and the New Zealand Commerce Act prohibit "contracts, arrangements and understandings" that lessen competition significantly. The term understandings was interpreted to involve "the meeting of two or more minds." Based on British case law, the essential elements of a meeting of minds have been held to include, that each of the parties communicate with each other in some way and as a result each has aroused in the other an expectation that he will act in a certain way, in other words, parallel conduct facilitated by communication for that purpose. It is still unclear whether there needs to be some element of mutual obligation for there to be an understanding. Canadian courts have rejected this definition for an illegal "combination, agreement or arrangement" and held that "there must be the mutual arriving at an understanding or agreement." This distinction is insignificant, as both definitions can be interpreted to include conscious parallelism. The process of finding the particular higher-than-competitive price that each firm is sufficiently satisfied with to avoid upsetting is certainly a coordination of sorts and might be seen as an implicit or tacit agreement, even if oligopolists succeed in maintaining non-competitive prices through the mere observation of each other's market conduct. The mental process which characterizes much actual cartel bargaining closely resembles the process by which oligopolists come to settle on a particular supra-competitive price through recognized interdependence. It is unclear, based on such definitions alone, when a unilateral act of a market participant should be regarded as such, or as a signaling device that helps facilitate collusion which crystalizes offer and acceptance.

6.5.2 Legal Tools for Regulating Conscious Parallelism

A. Direct regulation of conscious parallelism

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200 Australian Trade Practices Act 1974, Section 45.
201 Email, supra, note 36, at 385.
202 See Miller, supra, note 55, at p. 145.75; Morphett Arms Hotel Pty Ltd v. Trade Practices Commission (1980) 30 ALR 80; Trade Practices Commission v. Parkfield Operations Pty Ltd. (1985) 5 FCR 140; Trade Practices Commission v. Service Station Association Ltd. (1993) 44 FCR 206 ("It is difficult to envisage circumstances where there would be an understanding within s. 45...involving a commitment by one party...without some reciprocal obligation by the other party.")
Several legal tools are available for small economies that wish to regulate conscious parallelism directly, despite the difficulties surveyed above. The first is to create a prohibition that prohibits conscious parallelism outright. Section 1 of the Spanish Act Against Restraints of Competition, 1963, for example, prohibits "practices that are the result of agreements, decisions or knowingly parallel activities, whose object or whose effect is to prevent, to distort or to limit competition...." The language of the act is broad enough to prohibit conscious parallelism.

The second possibility is to follow the suggestion made by Posner and others and interpret antitrust laws as applying in cases of conscious parallelism. This approach may be, however, problematic, as it is has been rejected outright by courts.

The third possibility involves regulation of oligopolistic markets that act in a parallel fashion by using a "shared monopoly" or "joint dominance" construction. This construction can be specifically included in the law or, alternatively, result from the interpretation of the monopoly provisions. Israel serves as an example of the former. The definition of monopoly includes a collective dominance group which controls more than 50% of the market, if the Director has declared such a group to be a monopoly.204 The test for collective dominance focuses on two or more entities which do not compete or do not compete significantly.205 This provision applies to market situations in which a small number of firms dominates the market by coordinating their activities and not competing among themselves. The Director used this provision, for example, in the case of Re Marketing and Selling of Vacation Units.206 There, six firms which are involved in marketing and selling vacation units did not compete among themselves, and several even operated as agents for their potential competitors. In these circumstances the Director found that all six firms could be treated as one concentrated group. Since they controlled more than 50% of the market, they were declared a monopoly and were regulated as such.207 The EC and the U.S. have both attempted to use a shared monopoly construction to regulate

204 Israeli Restrictive Trade Practices Act 1988, Article 26(D). See also the Canadian Competition Act 1986, Section 79 ("one or more persons...").
205 A similar test can be found in sections 6 and 7 of the UK Fair Trading Act.
206 Re Marketing and Selling of Vacation Units (not published).
207 See Chapter 4.2 supra. The Maltese Competition Act 1994 also adopted the concept of joint dominance. Section 9 of the Act applies the market power assumption to "one or more undertakings" jointly have a combined market share of at least 40% of the relevant market. See Eugene Buttilieg, "The Notion of Dominance and the Control of Abusive Pricing under Maltese Competition Law" (Presented at the International Conference on Competition and Competition Law in Small Jurisdictions, Valletta, Malta, May 21-3 1998).
conscious parallelism.\textsuperscript{208} Conduct that comes under this construction can be regulated by the provisions that apply to monopolies.

All three legal methods suffer from the flaws reviewed in the previous section. The remedial and equitable difficulties are still apposite. The UK has attempted to overcome both problems by creating an administrative process for the direct regulation of conscious parallelism. UK competition law has specifically catered, in substance and remedy, for the control of non-collusive parallel conduct in an oligopolistic market. In marked difference to both the U.S. and the EC systems, the UK system is predicated on analysis of market failure,\textsuperscript{209} rather than on specific conduct. The \textit{Fair Trading Act 1973}\textsuperscript{210} allows UK competition authorities to investigate a market both where one controls 25% of the market and where "two or more persons...whether voluntarily or not, and whether by agreement or not, so conduct their affairs, as to prevent, restrict or distort competition."\textsuperscript{211} It thus allows for an investigation of an oligopoly whenever the market structure or the conduct of the oligopolists prevents or restricts competition. Its flexibility allows markets to be investigated without the requirement for blame and, as a result, a variety of factors which may have led to the competition breakdown can be assessed, in order to get to the root of the market failure.

Once market failure is found, the MMC may suggest remedies which include a wide range of behavioral restrictions together with stronger structural remedies of divestiture.\textsuperscript{212} It has been recommended, for example, that powerful buyers use their purchasing power more aggressively, or that government-created entry barriers be eliminated or lowered. Other recommendations focus on direct price control or even the monitoring of industry prices for a specified period.

\textsuperscript{208} For the U.S. see Electric Generators investigation, in Scherer and Ross supra, note 5. In the EC it is still unclear whether the joint dominance construction can apply to conscious parallelism. See Almelo Case C-393/92 [1994] ECR I-1477; Compagnie Maritime Belge c-395/96p (29 October 1998). The EC Commission, however, has clearly applied the concept of joint dominance to cases in which the parties act in parallel fashion due to their interdependence. See Nestle/Perrier OJ 1992 L356/1.

\textsuperscript{209} Sharpe, "British Competition Policy in Perspective" \textit{Oxford Review of Economic Policy} Vol. 1 No. 1, p. 85 ("What the UK possesses is a mechanism, whereby certain defects or failures in the market mechanism may be investigated and ad hoc remedies applied...UK policy is to isolate and remedy specific examples of market failure, whether or not abusive of market power are present." p. 90)

\textsuperscript{210} The Restrictive Trade Practices Act 1976 is aimed at agreements or looser forms of arrangements which affect competition. This Act was, nonetheless, interpreted as not applying to conscious parallelism.

\textsuperscript{211} Section 6(2) of the UK Fair Trading Act 1973.

\textsuperscript{212} Parts I and II of Schedule 8 of the Act, Divestiture requires the positive approval of parliament.
The MMC's policy towards oligopolistic markets can be demonstrated by its *White Salt Report*.\(^{213}\) The UK salt production market essentially consisted of only two producers, British Salt and ICI with broadly standardized products. Similarity of prices was found to reflect the lack of price competition, due to the fact that British Salt was a lower cost producer and thus could have priced its salt at significantly lower price levels, absent restrained price competition. The MMC concluded that the lack of price competition was against the public interest as prices were higher than they would have been if effective price competition had existed. It considered a price control mechanism based on British Salt's costs as the best method to break the link between ICI's high costs and prices. This would mean that the industry price would be that of the efficient producer. The less efficient producer would have to search for efficiencies or else lose market share. Following the report, undertakings were given by the two duopolists designed to limit the prices of white salt.\(^{214}\) This remedy raises the question of whether one efficient producer is better than two duopolists where one operates at higher production costs.

The pragmatic nature of this approach is its main virtue, since it enables the MMC to devise an appropriate remedy to a market failure, allowing for the variety in structure of the oligopolistic markets and the associated anti-competitive practices. The legal assessment is not subjugated to the need for legal definitions for purposes of certainty and predictability. Rather, provisions are designed to provide for the investigation and, where necessary, suitable prospective remedies for a situation of market failure in the public interest, irrespective of whether there has been collusion or other reproachable conduct. Yet this aspect is also its main weakness. The approach attracted criticism pertaining, mainly, to the uncertainty and unpredictability in the law and its highly interventionist implications.\(^{215}\) In addition, the remedies provided suffer from the disadvantages surveyed in the previous section.

B. Indirect regulation of conscious parallelism

Conscious parallelism can be regulated indirectly by a containment policy that prevents mergers and similar practices that threaten to create oligopolistic market


structures. Such regulation, which is the focus of the next section, is a limited remedy since many concentrated market structures, especially in small economies, are created by the internal growth of the market which is not prohibited. In addition, productive efficiency considerations may justify mergers to more concentrated market structures.

Another way of reducing oligopolistic coordination is by constant on-going regulation of many aspects of their business activity. This may include requirements of notifications of large deals, bids, prices, output and product differentiation. On-going inquiries make cartels less attractive, thereby creating an incentive to merge or to compete. Such regulation may, however, be very costly in public and private resources and does not necessarily reduce conscious parallelism.

Given the difficulties of regulating conscious parallelism by the methods surveyed above, small economies can potentially focus their policy on two additional tools: regulation of facilitating practices and, in special cases, government-control of a maverick firm. Each is the focus of one of the following sections.

6.6 Regulation of oligopolistic coordination with facilitating practices

6.6.1 Should facilitating practices be regulated?
The concern raised by facilitating practices is that such practices make it possible for firms to achieve supra-competitive pricing that would not otherwise occur so frequently or completely. Facilitating practices produce a consensus on trade terms or mutual confidence that oligopolists will adhere to such terms and make it individually rational for each oligopolist to behave in a parallel non-competitive way. This concern is magnified by the difficulty of preventing or remediying interdependent conduct as such. It may thus be useful to limit such practices even when we cannot eliminate concentrated market structures or directly prevent or remedy supra-competitive pricing that can occur within them. Prohibiting facilitating practices might be especially useful in small economies, in which highly concentrated markets are prevalent, as in such markets parties are less likely to leave a well marked trail of evidence of collusion.

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216 Schefer, supra, note 35, at p. 789.
217 Areeda, supra, note 15, at sec. 1435a.
Whether or not facilitating practices ought to be regulated depends on three interconnected factors that need to be balanced. The first factor is the ability of a facilitating practice to overcome natural obstacles to coordination and thereby increase the likelihood of non-competitive performance. The second factor involves the possible redeeming value of the facilitating practice in serving business purposes other than the possible reduction of competition. The third factor involves the costs of differentiating between socially harmful and socially efficient practices. Such analysis might be very costly given that it is dependent, to a large degree, on industry-specific factors that may change over time.

Accordingly, if we can devise a set of rules that will create a high degree of certainty regarding which facilitating practices should be prohibited and which should not, without sacrificing legitimate business functions and without undue arbitrariness, excessive administrative costs and unfair punishment, then such rules would be justified.

The importance of prohibiting facilitating practices to combat conduct that does not come under the scope of collusive agreements can be illustrated by the Australian case of Email, surveyed above. There, price leadership was facilitated through the forwarding to each other of new price lists immediately when they changed prices or introduced any meter or components. A prohibition of this facilitating practice would have made it more difficult, if not prevented, the high degree of parallel conduct in the market.

6.5.2 Legal Tools for Regulating facilitating practices
Facilitating practices can potentially be regulated by three main legal methods. First, facilitating practices may be condemned as a collusive agreement if they serve as a factual predicate for the inference of an illegal conspiracy. This tool is, however,

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218 Several U.S. cases have gone along these lines. See, for example, United States vs. Container Corp. 3093 U.S. 333 (1969). The U.S. DOJ has recently attempted to condemn facilitating practices as collusive agreements in the Airline Tariff Publishing Case (1994) see Borenstein, supra, note 46. There, the DOJ brought suit against eight major airlines and the airline tariff publishing company which is owned by the airlines and disseminates price change information to airline and travel agent computer systems. The case serves to illustrate the problems of defining what constitutes an illegal agreement where computer technology permits rapid announcements and responses to price changes by rivals in a highly concentrated industry. The case ended in a consent decree that prohibited certain specific practices deemed to facilitate coordination, such as the use of price codes and announcements of future price changes.
very limited as the causal connection is magnified when the practice is deemed conspiratorial, and criminal sanctions might be inappropriate.

The second approach views the facilitating practice as a possible restraint of trade. Under this approach, facilitating practices are an activity to be forbidden in themselves because of their anti-competitive tendencies, unless they have redeeming virtues that prevent us from condemning them. This approach is supported by Professor Hay who argues that to distinguish among various categories of behavior based on whether an agreement exists seems largely an exercise in semantics. Accordingly, “firms engaging in indirect collusion through a program of facilitating practices should face antitrust liability,” if it can be shown that the firm’s facilitating practices have the collective effect of reducing competition.

Most jurisdictions have rejected this approach outright. The Australian case of *Email*, surveyed above, is illustrative. U.S. courts have been very cautious in condemning facilitating practices as such. In *Ethyl*, for example, the Federal Trade Commission attempted to condemn facilitating practices in themselves under the FTC Act which does not require a finding of an agreement. The complaint in *Ethyl* did not claim that the practices were the result of any agreement, or that the practices had been undertaken for other than legitimate business purposes. It simply alleged that the practices themselves created unfair restraints on competition. The court rejected this test as being too vague. It was concerned by the uncertainty and potential arbitrariness of condemning otherwise lawful practices. It therefore stated that standards are needs in order to discriminate between normally acceptable business behavior and conduct that is unreasonable and unacceptable. However, several EC cases can be interpreted as condemning facilitating practices. Also, the U.S. DOJ has attempted to overcome the “agreement” requirement difficulty and regulate facilitating practices

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219 Hay, supra, note 46, at p. 468.
220 *Email*, supra, note 36.
221 *Ethyl*, supra, note 17.
222 The majority held that there might be some merit in holding a facilitating practice offensive when oligopolists “were unable to come forward with some independent legitimate reason” and that perhaps the commission’s position would be acceptable if a market were clearly oligopolistic with inelastic demand, supra-competitive prices and high barriers to entry and “a causal connection could be shown between the practices and the level of prices.” *Ibid*, at pp. 140-1. See also the recent cases against the principal manufacturers of infant formula which were changes with exchanging certain information about their future conduct, which had the effect of reducing uncertainty and facilitating parallel conduct. In the one matter that was litigated, the FTC was unsuccessful in establishing that the companies acted unlawfully. *FTC v. Abbott Laboratories* 853 F. Supp. 526 (1994).
223 Whish, supra, note 70.
by using the "shared monopoly" theory. The relevant case, the turbine generator investigation, however, was never filed in court. 224

The third approach to the regulation of facilitating practices suggests the establishment of a new administrative reviewable matter that would enjoin avoidable facilitating practices that engender or are likely to engender substantially non-competitive performance. Oligopolists would be liable where they engage in avoidable conduct, the tendency of which is to permit them to more closely coordinate their conduct than would otherwise be the case. Under this proposal no finding of agreement is necessary. Areeda endorses this approach. 225 His reasoning is that if the objective is to strike at practices or mechanisms that reduce uncertainty and help to overcome natural hurdles to restricting competition, the law should focus on the effects of the practices as they operate in the context of specific markets.

The second and third approaches enjoy some advantages over the first one. Prohibiting facilitating practices triggered by one firm eliminates the problem of having to infer an agreement of other firms to follow that goes beyond mere conscious parallelism, by an artificial construction of facts. They also enable the competition authorities to prohibit and prevent anti-competitive conduct in advance, as a potentially facilitating practice may be enjoined from its incipiency. In addition, the remedy is relatively simple and effective: an injunction will often suffice to end the practice. The third approach enjoys some additional advantages over the second one. A civil route invokes no criminal sanctions or stigma and thus is especially well-suited for the regulation of conduct that impairs competition without being morally blameworthy or reprehensible in any sense beyond adverse economic consequences. Also, it does not require the high burdens of proof of a criminal approach.

The benefits of the third approach are especially important for small economies, as it enables the competition authorities and courts to deal more directly with practices that facilitate tacit collusion and have no offsetting pro-competitive effects

224 Electric generators investigation, supra, note 208 (The DOJ concluded that since 1963 onward price competition in the sale of turbine generators has been virtually eliminated, but found no direct evidence of direct communication between the two producers, General Electric and Westinghouse. Nonetheless, certain facilitating practices were identified that have been instrumental in eliminating price competition, such as the matching of pricing strategies, price protection clauses and the publication of outstanding orders. The DOJ concluded that these practices allowed GE and Westinghouse to avoid price competition without the need for formal collusion. No case was filed, but the memorandum the DOJ filed with the court is based on a theory of shared monopoly under section 1 of the Sherman Act).
225 For suggestion of a similar approach for Canada see Howard and Standbury, supra, note 7, at p. 258.
without the additional hurdle of proving an agreement. The burden of proof of the anti-competitive harms of the practice by the competition authorities should, nonetheless, be set at a high level if it cannot be clearly proven that the anti-competitive effects outweigh the pro-competitive ones, in order to curtail the danger that in their desire to restrict oligopolistic coordination the competition authorities will lose sight of the offsetting benefits of such a conduct.

6.5.3 Proposed Set of Rules for Regulating Facilitating practices
I suggest the following set of rules that are analyzed below:

1. Facilitating practices that unambiguously or overwhelmingly serve to restrain trade, should be prohibited.

2. The plaintiff must show that competition was substantially attenuated, or that market structure is highly conducive to oligopolistic collusion.

3. The plaintiff must show that (a) the anti-competitive result could be traced to the challenged practices, or (b) that it would likely lead to such result in a non-trivial way.

4. Facilitating practices that have offsetting benefits to total or consumer welfare should be judged on the balance of probabilities and prohibited where the benefits to welfare do not offset the effects of the practice on restraining competition or the benefits to welfare can be achieved in a less competition restraining fashion.

5. The defendant must prove offsetting benefits or that the less restrictive alternative is significantly more costly or less effective (case (a)) or the greater cost or diminished effectiveness is not trivial (case (b)).

6. No damage or criminal sanctions should be imposed unless illegality under the preceding standards is clear. Where private damages are available under the law, these should not be applied here. The Sanctions should be simply prohibiting the facilitating practices and restoring competition in the market.

Should supra-competitive pricing be a prerequisite for legal intervention or is an oligopolistic market structure sufficient? As Areeda argues, requiring proof of supra-competitive pricing will mean that very few facilitating practices will be

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226 These rules build, heavily, on Areeda, supra, note 15.
the competitive level. It may also lead to shifting legality of any given conduct in a specified market, based on changes in performance. Market structure should thus act as a surrogate for non-competitive performance. Structural considerations should include all market factors that affect the ease with which oligopolists can coordinate their conduct. Nonetheless, when structure rather than actual economic performance is the basis for challenging a facilitating practice, we should allow more generous defenses if the challenged practice also serves a business function other than facilitating tacit coordination.

Must there be a clear causal connection between the challenged act and inefficient economic performance or is a tendency to facilitate tacit coordination sufficient? Given that in most cases it is extremely difficult, if not impossible, to prove a clear causal connection, especially where several facilitating practices have been adopted, proof of a tendency rather than of an effect of the facilitating practice should be sufficient. However, to offset some of the uncertainties involved in such a prohibition, the burden of proof on the defendant to prove offsetting pro-competitive virtues should be lower. In some cases it will be extremely difficult to prove even a strong tendency. The more oligopolistic the market, the more likely is oligopoly pricing to occur without any facilitating practices. In the Canadian Atlantic Sugar case, for example, the market was highly concentrated with three firms supplying 100% of demand. Other market conditions favorable to collusion included homogenous products, relatively inelastic demand, similar cost structures, high entry barriers due to tariffs on imports. Assuming that prices were anti-competitively high, it is still unclear whether the challenged practices—advance announcements of prices—really made much of a difference. In these unique market conditions, where price coordination might well be expected even without the facilitating practice, it should not be prohibited.

As noted above, economic theory can help regulators differentiate between market situations which are conducive to coordinated conduct and those which are not. Parallel conduct may amount to strong evidence of concerted conduct if the conditions of competition that exist in the market do not respond to the normal

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227 Ethyl, supra, note 17.
228 Areeda, supra, note 15, at sec. 1436f.
229 Ibid, at sec. 1436g.
230 Atlantic Sugar, supra, note 153.
conditions in the market, having regard to the nature of the products, and the size and number of the undertakings. Such an approach has been applied by the ECJ in several cases. In Dyestuffs,231 for example, the court rejected the argument that the parties had acted in a similar manner only because of oligopolistic market structure, since the market was not a pure oligopoly, but rather one in which firms could realistically be expected to adopt their own pricing strategies.

The most difficult analysis is that which balances the competitive harms and benefits which are both likely to be indistinct in magnitude. In most cases measuring pro and anti-competitive effects in practice is impractical, except for gross qualitative, even intuitive judgements. Nevertheless sensible judgements can sometimes be made. The U.S. Ethyl case232 clearly demonstrates the problems involved in characterization of certain business practices as facilitators of restrictions of trade. There, the condemned practices—advance price announcements, most favored buyer clauses and delivered pricing—were adopted by Ethyl when it was the only producer and when, therefore, it was necessarily serving a business purpose other than coordination with non-existent rivals.233 Because buyers favored these practices, later entrants into the market naturally adopted them. Under the new oligopolistic market structure, however, these practices also had the effect of reducing uncertainty and creating conditions favorable to collusion.

The balancing rule between the pro and anti-competitive effects of each facilitating practice can, potentially, range from prohibiting any practice that has some anti-competitive effects to prohibiting only facilitating practices that have no or minimal offsetting pro-competitive virtues. We suggest the adoption of the “substantial effects” test with an offsetting virtues and a least restrictive alternative defense, as follows. In the first stage the plaintiff must establish a prima facie case by proving either (a) that the facilitating practice had or may have substantial effects on facilitating collusion or (b) that it has a tendency to do so in a non-trivial way. The weight to be given to legitimate business purposes and alternative ways of achieving them depends on the basic criteria chosen to determine whether prices are supra-competitive and whether the challenged practice caused them. The higher the burden

231 Dyestuffs, supra, note 152, para. 65 and 66.
232 Ethyl, supra, note 17.
233 It is conceivable, but not always probable, that a monopolist would adopt business practices in anticipation of a change in market structure when coordination would be desirable.
of proof with respect to these elements, the higher the burden on the defendant to show legitimate business cause of the sort that seems capable of being substantial.\textsuperscript{234} Accordingly, the defendant assumes the burden of proving that the conduct has offsetting pro-competitive effects or that the less restrictive alternative is significantly more costly or less effective (case (a)) or the greater cost or diminished effectiveness is not trivial (case (b)). Total welfare considerations should be taken into account as well as consumer welfare considerations. The plaintiff would then have the ultimate burden of showing that the conduct had overall anti-competitive effects. If the plaintiff can prove that the pro-competitive effects can be accomplished in an alternative way that is no more costly to the facilitator or to society, then the defendant’s defense should fail.

While small size should not affect the type of the analysis, concentrated market structures do raise stronger anti-competitive concerns of conduct that would be viewed otherwise in less concentrated markets. Accordingly, a stricter policy towards facilitating practices should be adopted in concentrated markets protected by high entry barriers.

6.7 Government support of a maverick firm\textsuperscript{235}

6.7.1 General

This section proposes a novel solution to the oligopoly problem that seeks to imitate the conduct of a maverick firm that reduces the incentives and the ability of oligopolists to coordinate their prices at supra-competitive levels with one important difference: our maverick’s pricing decision is based on total or consumer welfare considerations instead of its own profit maximizing considerations. The model requires government support of one of the firms operating in the oligopolistic market (the “maverick”) for a limited period. During this period, the maverick adopts a low-price strategy to which his rivals must react in order to compete effectively. Oligopolists that will not reduce their price will eventually lose some or even all of their market share to the maverick or to other competitors that have followed the

\textsuperscript{234} Areeda, supra, note 15, at sec. 1436h.

\textsuperscript{235} The author would like to thank Marcel Kahan, Victor Goldberg, Robert Daines, Ehud Kamar, Michael Trebilcock and Jeoff Miller for most helpful comments on earlier drafts. All errors and omissions remain the author’s.
maverick’s lead, depending on their individual demand curves, and may even need to exit the market.

Consider the following example: let us assume an industry with an almost perfectly homogenous product in which three firms A, B, and C operate. Further assume that A and B’s marginal cost of production is 10$. C’s marginal cost of production is 9.5$. In the pre-maverick situation the three firms engaged in conscious parallelism and the equilibrium price charged for each widget was set at 13$. A and B enjoyed a market share of 25% each and C enjoyed a market share of 50%. The government enters into an agreement with A under which A agrees to sell its widgets at its marginal cost (P=MC=10$), provided that the government pay it an additional 1$ per unit sold.\footnote{See section 6.7.3(iv) infra for an analysis of the height of the subsidy the government must pay A in order to cooperate with it and play the role of the maverick firm.} Assuming A can expand its output in order to meet increased demand for his products, B and C will have to reduce their prices to match A’s price (10$) or lose their market shares. C might even decide to reduce its price below 10$ in order to gain more market share. C, the most efficient market player, will still enjoy higher profits than A or B. Price will be set near the level it would have been set in a competitive market. Diagram 1 illustrates graphically the pre and post-maverick price levels.

Diagram 6.1: The effect of the maverick model on price levels
One of the important feature of this model is that it does not necessarily directly affect the cost structures of firms or the market structure.\textsuperscript{237} Rather, it affects the profitability of specific pricing strategies under given market conditions. Moreover, the model interferes only with the pricing decisions of the maverick firm by creating an upper limit on the oligopolistic price. This, in turn, creates incentives for all other oligopolists to lower their coordinated price and compete vigorously on the merits. The effect is similar, in many respects, to the lowering of tariff of other barriers for new (e.g. foreign) firms.\textsuperscript{238}

An interesting issue involves A's incentives to cooperate with the government. Why would A agree to play the part of the maverick firm if it could continue to enjoy higher profits by engaging in conscious parallelism if the government does not succeed in entering the industry? The answer is attributable to a prisoner's dilemma, where all firms have a dominant strategy that leads to a payoff that is inferior to what they could achieve if they all cooperated. Each competitor had two conflicting incentives. On the one hand, if all the oligopolists decline to cooperate with the government they could avoid the lowering of prices for all (at least until the government finds another way to enter the industry). On the other hand, If A does not agree to cooperate with the government, but one of its competitors does, then A will incur much greater losses than its competitor. The financial incentives offered by the government for the part of the maverick will allow the chosen maverick to avoid the greater losses that would befall its rivals. Since A cannot ensure that all of its rivals will not agree to play the maverick role, it will have a strong incentive to do so.\textsuperscript{239}

Therefore, as long as the competitors do not act collectively, each has an incentive to cooperate with the government. Furthermore, in the long-run all firms might be better

\begin{footnotesize}
\textsuperscript{237} See Section 6.7.2(iv) infra for discussion of the use the model in order to affect market structure or the cost structures of firms.

\textsuperscript{238} Nonetheless, new entry need not always reduce price to competitive levels. If new entrants are few and oligopolistic coordination is possible, new entrants may have incentives to participate in the coordinated scheme rather than reduce prices to competitive levels. Incumbent firms, recognizing this incentive, will accommodate new entrants in the market by reducing their own output.

\textsuperscript{239} Starting in August 1993, the Department of Justice has revised its Corporate Leniency Program to make it easier and more attractive to companies to come forward and cooperate with the Division. Under the program, the first cartel member which comes forward with information regarding a cartel which the authority does not posses will receive lenient treatment in the cartel prosecution. All officers, directors and employees who cooperate are protected from criminal prosecution. This program, which is also based on a prisoner's dilemma, has created strong incentives for many cartel members to come forward and confess, in order to take advantage of the first-mover benefits. The application rate is close to two per month. See Gary R. Spratling, "Detecting International Cartels and Fostering International Anti-Cartel Enforcement" presented at the Israel International Antitrust Conference (Tel Aviv, Israel, November 15-6 1999).}
\end{footnotesize}
off if one of them agreed to cooperate with the government, as otherwise the government might seek alternative ways to enter the industry such as establishing a new competitor or subsidizing the entry of a new foreign competitor. This might mean a reduction in overall profits for all incumbent oligopolists if capacity is increased. The incentives of firms to assume the maverick role also depend on their relative position in the industry, their relative efficiency, the long-term costs of being labeled as a cooperator with the government, and other benefits offered by the government such as financial aid in adding capacity, as analyzed below.

Diagram 6.2: The effect of the Maverick Model on firms’ profitability

Diagram 6.2 illustrates the incentive mechanism that induces firms to cooperate with the government and assume the role of the maverick firm. The diagram charts the profit levels of all the firms operating in the industry in the pre-maverick and post-maverick situations. Curves A, B, and C plot the per-unit profit levels of the oligopolists in the example above. The total average per-unit costs of these firms are illustrated by the point 0. It is clearly seen that their profit levels drop significantly, even if not necessarily below their total average cost. Curve B represents the profit level of Firm B which will not make any profit once the maverick firm expands. Curve A illustrates the profit levels of the maverick firm. Its marginal

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240 See Section 6.7.1(ii) below.
241 Cournot equilibrium. Cournot, supra, note 39. This factor may also reduce disincentives to cooperate with the government in a continuous game where cooperation with the government is marked by other businessmen as defection or cheating.
revenue is higher than the price, due to the governmental subsidy. Although its profits do not necessarily reach the levels it reached under oligopoly pricing, it is more profitable than its rivals. Curve C illustrates the profit levels of a hypothetical firm C which is less efficient than A and B, and would incur negative profits (losses) and might even be driven to bankruptcy if market price were set at 10\$ per unit. While it may not be possible to predict precisely the level of lost profits of all firms operating in an industry, especially where demand is not highly elastic for differentiated products and cost structures differ from one firm to another, the overall assumption of the model is easily verifiable: risk-averse businessmen will have incentives to cooperate with the government.

A. Necessary conditions
Three conditions must exist for other oligopolists to follow the maverick’s pricing strategy. First, the maverick must create a credible threat to serve consumers that were previously served by its rivals if they do not follow its conduct and reduce their prices accordingly. It must therefore possess sufficient capacity or should be able to add sufficient capacity to serve all or most of the demand he will take away from his rivals. Owning sufficient capacity may be costly, however, since once expansion occurs and competing oligopolists realize that the maverick is reducing their profits they will, most likely, price their own output at the competitive level. The maverick will then lose some of its sales, some of its installed capacity will be under-utilized, and sunk cost might be significant.

Several conditions may, nonetheless, reduce the need for or the costliness of additional capacity. If sunk costs are not significant, the maverick may sell some of its additional capacity when other firms match his prices. Alternatively, oligopolists may anticipate the severe impact of entry with large scale on aggregate output and on price. Added capacity may pose a serious threat to incumbent oligopolists, especially if significant economies of scale exist over the whole or a large portion of demand. Once the maverick expands its capacity, the oligopolists will have to accommodate an additional scale oligopolist, and reduce their market shares accordingly. If the expansion allows the maverick to realize scale and learning economies not realizable by incumbent oligopolists it might even have incentives to reduce its prices below the levels that they can profitably match, given their higher costs of production. In such
cases, the threat of increased capacity alone may act as a stimulator to reduce prices to a lower level based on current costs of production.

The above analysis is similar, in many respects, to that of the entry of a new competitor with a cost advantage. One important difference exists. Under the maverick model the incumbent oligopolists cannot adopt a retaliation strategy against the maverick in order to deter expansion (or entry, in the case where government chooses to enter by backing up a new market player). It cannot be assumed that the government will be deterred from entry or expansion by the risk of sunk costs alone. The only option open to competitors is to accommodate the maverick and adopt a comparable pricing and output strategy.

The second condition that must exist is relative product homogeneity. If each firm enjoys niche demand for a branded or a highly differentiated product (i.e., its residual demand curve is relatively inelastic), the price of the maverick’s product may have to be reduced considerably in order to significantly affect the demand for competing products. Nonetheless, if scale economies are prevalent and significant, a reduction in demand for differentiated products caused by the lower prices charged by the maverick may critically affect the profitability of his competitors. Under such a scenario, the threat of low prices alone might be sufficient to induce a price reduction.

The third condition dictates that the duration of the product’s life-cycle should be longer than the time it will take the maverick to expand its capacity. In other words, the “game” is a continuous one. In a one-shot game (new product emerges) the competitors all do not have incentives to reduce their prices. However, in a continuous game, their incentive is to maintain or even increase their profits and market shares.

**B. Three variations**

The government may choose one of three options to create a maverick:

A. Creation of a new entrant or acquisition of an existing oligopolist that would be controlled the government

B. Subsidization of a new entrant, most likely a foreign competitor.

C. Subsidization of an existing oligopolist.

The first option suffers from three main drawbacks. First and foremost, it requires governmental operation or even the establishment of a new market player, for which
the government has no expertise. Although the government might hire the required personnel to operate a competitive firm, this may be costly. Second, introduction of additional capacity, in a case where the government establishes a new competitor, may increase the problem of an over-crowded sub-optimally scaled industry. Finally, if sunk costs are significant (as is usually the case in oligopolistic markets), it might be very costly to exit the industry once the government’s task is completed. This option reduces, however, monitoring costs that result from information asymmetries in the second and third options.

The second option, a government-subsidized new entrant (most likely a foreign maverick), solves the first and third drawbacks. It also reduces significantly the level of governmental intervention in the market. Where political obstacles to the reduction of tariff barriers exist, this option can overcome such hurdles, although it is a second-best policy. At the same time, this option may also raise the problem of adding capacity to an over-crowded market. It also creates problems of informational asymmetries, since the government must rely, to some extent, on information provided to it by the maverick. In addition, there may be a host of political obstacles to its application in a case the government chooses to subsidize a foreign firm in order to regulate a domestic oligopoly.

The third option, an incumbent oligopolist subsidized by the government, has the greatest potential to work best in most situations. It solves all of the three drawbacks of the government-controlled maverick option while reducing intervention in the market. Similar to the second option, it suffers from informational asymmetry problems that are discussed in section 6.7.3C below.

Although the third option is the most efficient in most market settings, the remaining two can be used where no domestic firm agrees to assume the role of the maverick firm, or the compensation it demands for its cooperation is extremely high. In fact, the threat of using one of the two remaining options might increase incentives of domestic incumbents to cooperate with the government.

6.7.2 Welfare Effects of the Maverick Strategy

A. Direct effect on allocative efficiency
Allocative efficiency is positively affected by the maverick’s price-reducing strategy, as price is reduced and output is increased. Cost reductions to consumers are much higher than the subsidy paid to the maverick since the government must only compensate the chosen maverick for his participation, rather than all the market participants. Further, as will be shown in section 6.7.3D below, due to the underlying features of a prisoner’s dilemma game, the subsidy given to the maverick is lower than its price reduction.

**B. Indirect effects on allocative efficiency in other oligopoly industries**

An important benefit of the maverick model involves its indirect price-reducing effects on other oligopolistic industries in which the government does not intervene. Once the government creates a credible threat to intervene in oligopolistic industries by way of a government-supported maverick, oligopolists operating in other industries may reduce their price levels closer to the competitive level in order to prevent direct intervention in their industry. The explanation is quite simple. Assuming that oligopolists are risk-neutral, they may find it profit maximizing to adopt pricing strategies that deter intervention, if the risk created by such intervention is higher than their expected profits from following their current pricing strategy. Incumbent oligopolists will take into account in their pricing decisions the credibility of the risk that the government will support a maverick in their industry and the risk to their profit level that a maverick firm will create. Both factors are influenced, *inter alia*, by the cost-profit difference in the industry. The expected loss of profit of each firm will generally be based on the assumption that another firm will be chosen to act as a maverick, since no firm can be sure, beforehand, that the government will choose to bestow the role of the maverick upon it. But even if a firm contemplates that it will be chosen to act as the maverick, it might still be more profitable to reduce price collectively in order to prevent intervention since the government does not compensate the maverick for all of its losses. If the risk of governmental intervention is significant enough, then the price at which intervention is assumed creates an upper limit on the equilibrium price. As different firms might have different evaluations of the risks posed by governmental intervention, the equilibrium price will be based on the lowest price calculated by any oligopolist necessary to deter intervention (assuming the firm has or will have sufficient capacity to take away some of the
market shares of its rival oligopolists if it prices its widgets at a lower price than its rivals. Such an outcome is desirable, as it reduces allocative inefficiency without direct intervention in the market.

This can be exemplified as follows. Assume similar market conditions as noted above (three firms; homogenous product; conscious parallelism; and the oligopoly equilibrium price is $13$ per unit). For simplicity assume all firms have marginal costs of production of $10$ per unit. If the oligopolists assume that there is a real risk that the government will intervene in their industry if the price-cost margin is higher than $20\%$, then they will have a collective incentive to set the equilibrium price at $12$ per unit. This price will serve as an upper limit on their coordinated price. As shown below, the profits of the maverick firm may be lower, for example, only $1$ per unit. Thus, even if a firm assumes that it will be chosen to act as the maverick, its dominant strategy will still be to reduce the equilibrium price.

Still, the possibility of a maverick intervention might have limited effect on some oligopoly industries. First, the price-cost margin might not be sufficiently high to create a risk of governmental intervention. However, such industries do not raise strong concerns as the welfare losses they create are low by definition. Second, firms might assume a low risk of governmental intervention. Several successful mavericks may change this significantly. Third, some firms may believe that a maverick will have limited effect, if at all, on their profitability due to product heterogeneity. As argued above, several conditions have to be met prior to the application of this solution. Nonetheless, a vigorous application of the maverick model in several representative industries might increase the risk factor to affect industries with heterogenous products as well.

C. Post-Maverick period allocative efficiency
Assuming no change in market structure has occurred, theoretically profits in the maverick's industry may return to their pre-maverick levels once the government ceases to set the maverick's prices. The threat of repeated intervention might, nonetheless, induce the oligopolists to price at lower levels. The formal analysis is similar to that of the previous section. The credibility of the threat of repeated intervention is much higher than in other industries, given the government's familiarity with the specific industry's conditions and cost structure. Also, the
existence of a benchmark price, created by the maverick period, may create significant consumer pressure on the government to resume support of the maverick firm if prices are significantly elevated.

D. Effects on Productive Inefficiency

The maverick model could also reduce the problem of productive inefficiency created by sub-optimal plant sizes or inefficient firms. As noted above, oligopoly pricing creates a price umbrella that may permit the perpetuation of high-cost inefficient producers who do not face competitive pressures to reduce their costs. The maverick model might be used to induce firms to achieve efficient scales or to exit the market if they are highly inefficient. If the maverick’s price is set at a level that could only be profitable if a firm operates at efficient scale, then its rivals will need to expand their operations in order to survive. Consider the following example: the government contracts with C and sets the price at 9.5$, which could only be achieved by plants that achieve minimum efficient scales of production at 33% of the industry. A and B will need to expand in order to survive. If a fringe firm, D operated in the market and it was inefficient, it would need to exit the market. Such a change would enable the realization of scale economies and lower production inefficiency. Similarly, low price levels might not enable inefficient rivals to operate profitably in the market even if scale economies are not prevalent, and they will have to exit it or reduce their productive inefficiency. Assume that firm A sets its price at its marginal cost (10$). This will induce D to exit the industry, leaving it with three more efficient firms.

Whether or not a change in market structure is economically warranted depends on a comparison of the industry’s performance under the new structure once the maverick is no longer subsidized by the government, to the existing structure. As argued above, a pricing scheme might be used to allow the market to break out of an inefficient structure. The attractiveness of such a change depends on the economic benchmark chosen—consumer or total welfare. If total welfare is the benchmark, then a more concentrated market structure justified by production efficiencies may be justified. If consumer welfare is the benchmark much depends on the special characteristics of the specific industry, including cost structures, cost differences, the ability to collude or engage in parallel pricing, etc, as well as on the regulatory methods at the disposal of the authority to regulate more concentrated market
In any case, the government can prevent the creation of more concentrated structures by setting the maverick’s price at or above the costs of all (or at least most) of the firms operating in the industry, but still below the oligopolistic price.

The maverick model might also increase productive efficiency in other oligopoly industries in which the government does not intervene directly. The formal analysis is similar to that of Section 6.7.2B above.

**E. Reduction of cartelistic activity**

An important indirect benefit of the maverick model involves its negative effects on the incentives and ability of oligopolists to engage in cartelistic activity. As noted above, a successful collusive scheme must overcome three main hurdles: reaching a joint-maximizing agreement, detecting deviations from the agreed-upon trade terms, and enforcement of the agreement by way of punishing such deviations. The maverick model creates obstacles to achieving all three tasks.

Reaching an agreement requires the establishment of a mutual understanding or consensus regarding trade terms. The maverick model introduces another factor that needs to be evaluated in setting the collusive price: the risk of government intervention. As different firms might have different estimations of such a risk, it might create hurdles to reaching an agreement.

The maverick model may also reduce the incentives of oligopolists to adopt certain coordination-facilitating or policing devices. For example, the possibility that the maverick model will be applied will reduce the incentives of oligopolists to adopt meeting competition clauses as they will be required to match the maverick’s price immediately, even if market conditions are such that the maverick could not have expanded quickly to take away their market shares by lowering prices alone. Parties may, however, circumvent this concern by redrafting their contracts. For example, the parties could condition the clause so that it does not operate when the low price is quoted by the maverick. Such clauses may, however, make them more susceptible to allegations of oligopolistic pricing. Alternatively, they could prefer clauses that give the seller the option to meet a price. This second option, however, reduces the

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242 Such an analysis is much similar to the one employed in merger decisions. See U.S. Department of Justice and Federal Trade Commission, *Horizontal Merger Guidelines* (revised April 8, 1997), reprinted in *4 Trade Reg. Rep.* (CCH) p. 13.
advantage of contractual clauses as signalling devices, as the commitment of the oligopolist to other oligopolists to match their prices is significantly reduced. The welfare effects of eliminating the use of such clauses depends on two competing considerations. On the one hand, these clauses may not be in the buyers’ interest if the collective acceptance by all buyers stabilizes the sellers’ joint profit outcome and makes discounting less desirable or price increases less risky. Nonetheless, such clauses may be valued by each buyer individually, since they ensure that he will enjoy the lowest price requested for a product or a service by any firm operating in the market.

6.7.3 The Details of the Maverick Model

A. Optimal price levels set by the maverick

Two general parameters should guide the government in its pricing decision. First, the price set by the maverick should reduce the market price to the lowest level that would still allow efficient firms to compete with the maverick without incurring any losses (although losing most of their profits from oligopolistic coordination). Second, and a derivative of the first, the resulting market structure (if price is set at levels that allow only efficient firms to operate profitably and less efficient firms exit the market) should be one that would not reduce total welfare (or consumer welfare, should that be chosen as the benchmark), once the government stops subsidizing the maverick. In most cases, this will dictate that the maverick’s prices be set at his marginal cost (P=MC). Assuming the three main conditions stated above apply (no significant barriers to the maverick’s expansion, no significant product differentiation, continuous game), the maverick’s rivals would follow its pricing scheme and price at similar levels.

Adherence to the above principles may, nonetheless, require that under certain market conditions the price set by the maverick firm will not equal its marginal cost. For example, if the maverick has much higher costs than his major rivals (due, for example, to unrealized scale economies) it might be more efficient to price the product below the costs of the maverick firm and at the marginal costs of firms which have achieved scale economies (P=MC of scale oligopolists). Interestingly, efficient firms will have stronger incentives to cooperate with the government if the
government states ex ante its intention to base the prices charged by the maverick firm on more efficient rivals' marginal costs.\textsuperscript{243} An important effect of any pricing scheme that sets prices below the marginal costs of some firms operating in the industry is the exit of less efficient firms and the creation of a more concentrated market structure. The welfare effects of such a change were analyzed in section 6.7.2D infra.

Whatever the optimal price, the maverick must be given sufficient flexibility to adjust its price to cost reductions or increases (e.g. a change in the price of an important output). This is especially important where cost variations are industry-wide and affect all of the maverick's competitors. Section 6.7.3C below analyzes the factors that affect the government's ability to verify the real cost structure of the maverick and his rivals.

B. The Temporal Element: Length of subsidy

How long should the government subsidize the maverick? The optimal length of time varies from one industry to another, depending on the specific industry's conditions. In general, it should be the minimal period that is sufficiently long to create significant losses to the maverick's rivals if they do not reduce their prices to the maverick's levels and to create incentives for market participants to assume the role of the maverick firm even if they reduce their price levels to the maverick's. In particular, time frame considerations must include the length of time it will take the maverick to expand its output and erode significantly the market shares of its rivals, including the time it may take to educate consumers about the maverick firm's low-cost product, where products are not completely homogenous. The government does not have, however, to specify the length of its subsidy before it enters the market. And even if it does, this information should not necessarily be conveyed to all market participants.

C. Verifying True Costs

The efficient application of the proposed model in practice depends, to a large degree, on the government's ability to verify the costs of oligopolists operating in the market.

\textsuperscript{243} Once a more efficient firm assumes that the government will set the price at the marginal cost of its chosen maverick firm, and the maverick firm will, most likely, be less efficient, then its loss of revenue might not be deemed significant enough to allow government intervention in its pricing decisions.
This may pose, however, some difficulties, given informational asymmetries between the oligopolists and the government.

Interestingly, the proposal creates mixed incentives for firms to convey their true cost structures to the government. On the one hand, several factors combine to induce the maverick firm to state a lower cost structure than it has in practice once it decides to assume this role. These incentives are created by the fact that the subsidy is based on the difference between its maverick market price and the oligopoly price (see discussion in Section 6.7.4D below). The lower the costs it states, the larger the compensation. Also, it might use the maverick role to engage in government-subsidized predation, as discussed below. In addition, if the government's choice of maverick is based on efficiency considerations, the firm has strong incentives to state low costs in order to induce the government to prefer it over its rivals.

On the other hand, the lower the costs that oligopolists state the stronger the risk of government interference. Moreover, the more difficult it might be to justify a return to original prices once the subsidy ceases. Where the antitrust authority is empowered to price-control firms that charge unfair or supra-competitive prices, these regulations might limit the incentives to state a lower cost structure.

The government may use these contradictory incentives in its favor by inquiring about the cost structure of all firms (or at least the major firms) operating in the industry before it announces which firm it has chosen to play the part of the maverick, and even before it announces its intentions to intervene in the specific industry, while holding firms to their cost information once a maverick is chosen. In any case, cost inquiries are quite a common procedure engaged in by antitrust enforcers. In merger decisions that involve efficiencies and in predation and refusal to deal cases the authorities must verify the cost structure of some market participants.

The information asymmetries that exist between the maverick and the government raise the danger of government-subsidized predatory pricing by the maverick. Predatory pricing occurs when a firm prices its products below cost with the intention of driving its competitors out of the market and reaping high profits once they exit (or do not enter). The risk of predation is increased by the proposed model

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244 See Chapter 4.2 supra.
245 It is unnecessary, for the purposes of this chapter, to discuss the correct test for predatory pricing. (see, for example, Areeda and Turner, "Predatory Pricing and Related Practices Under Section 2 of the Sherman Act" (1975) 88 Harv. L. Rev. 697; F.M. Scherer, "Predatory Pricing and the Sherman Act: A
since the maverick will not incur any losses (except lower profits for the time it is subsidized) even if it prices its widgets below average variable cost if the government-subsidy is sufficiently high. Even his more efficient rivals would not be able to compete effectively and will be driven to exit the market. This is especially troubling in industries with high entry barriers.

The government should devise appropriate safeguards that will eliminate or at least reduce significantly the occurrence of this problem. First, the government should attempt to avoid choosing as its maverick a firm which has several divisions (whether vertical or horizontal) operating in other markets that share operational costs. The existence of such divisions reduces the ability of the government to verify which costs are attributable to the subsidized operation. It is noteworthy that such verification is much less demanding than price regulation, as the latter requires verifying and regulating the cost structures of all the firms operating in the industry. Second, the government should invest resources in monitoring the maverick’s prices. Third, predation should be dealt with harshly once it is detected, thereby reducing the incentives of the maverick to engage in such conduct. This could be achieved in several ways. The predator might be sued for a violation of the relevant competition law once predation is detected. Alternatively or cumulatively, the government might include a contractual provision that reduces or cancels the subsidy or even mandates its restitution once it is found that the maverick has priced its products below levels agreed upon with the government. The efficiency of these methods in preventing predation depends, to a large extent, on the ability of the government to verify the costs of the predator as well as its ability to detect price deviations. Where policing prices is exceedingly difficult, the costs of applying the maverick model might even exceed the benefits. However, where policing is difficult, it is also difficult for industry participants to coordinate their prices (by way of cartelseistic coordination or parallel pricing) and thus the oligopolistic price will, most likely, not create significant welfare losses. In any case, predatory pricing is not a necessary or even a primary feature of the proposed model.

Comment” (1976) 89 Harv. L. Rev. 869; Areeda and Turner, “Scherer on Predatory Pricing: A Reply” (1976) 89 Harv. L. Rev; Scherer “Some Last Words on Predatory Pricing (1976) 89 Harv. L. Rev. 901.) It is assumed that the maverick has chosen to price his products below this cost measure.
D. Compensation of the maverick

The compensation the government should offer the maverick depends on the maverick’s incentives to cooperate with it. The stronger the incentives to cooperate, the lower the compensation that must be offered in order to secure such cooperation. The incentives to cooperate depend, in turn, on the market conditions in the pre-maverick and post-maverick periods as well as the position of the maverick in the market. The higher the entry barriers, the weaker the incentives of established firms to cooperate with the government. Where entry barriers are significant and expansion is costly, firms will take into consideration the difficulties of any maverick in eroding their market shares and established market positions. Nonetheless, if the government creates a credible threat to expand output, such firms will take into consideration the fact that once their rival does expand, it will take away part of their profits permanently. Fringe firms may have strong incentives to use the maverick role in order to expand in the market and strengthen their position. Assume a pre-maverick situation similar to that sketched previously with A, B, C, and D. Further assume scale economies over 30% of the market. A, B and C all have a production capability of 30%. If D, a fringe firm, can expand its facilities by using a government subsidy and sunk costs are high, then A, B, and C would each have strong incentives to cooperate with the government and become the maverick in order to deter D’s expansion.

The government does not, however, have to compensate the maverick firm for all of its lost profit. As noted above, given the underlying features of a prisoner’s dilemma game, compensation should not be based on the pre-maverick oligopoly price, but rather on the lost profits once one of the other competitors assumes the role of the maverick. Compensation should thus enable the maverick to recoup some, but not all, of the lost profits it would have earned otherwise. Also, the higher the post-intervention benefit to the maverick, the lower the necessary per unit compensation. Compensation based on the number of units sold at the lower price would create the strongest incentives for the maverick to compete vigorously and take away some of the market shares of its rivals that do not follow his pricing strategy. The government can use the fact that oligopolists are potential rivals for lowering the compensation, by asking them to bid for the role of the maverick.

The maverick should also be compensated for the expansion of its facilities, should it need to expand in order to create a credible threat. Compensation should not,
however, necessarily equal the costs of expansion. Two factors may reduce the level of the compensation paid to the maverick. First, if the added capacity allows the maverick to achieve scale or learning economies, then the per-unit compensation should be lowered by the amount of cost savings the maverick enjoys. Second, if the expansion would enable the maverick to compete more vigorously in the market in the post-maverick period and increase its profits, then these long-term profits should be taken into account when calculating the compensation. Put differently, the maverick should pay the price it would have paid in a competitive market for the added facilities. It is noteworthy that the option of a government-subsidized expansion will create strong incentives for fringe firms to act as mavericks and, accordingly, strengthen the incentives of larger competitors to assume such a role in order to prevent such expansions.

E. Procedural and Discretionary Powers
The application of the maverick model should be based on administrative discretion without a finding of a violation. The reason is that condemning oligopoly pricing as such may be unfair since the firms involved are acting rationally in light of the structure of the market whereby each firm is simply considering its own profit-maximizing rate of output, given the outputs of its rivals and their anticipated responses to its own price and output decisions. To ignore these issues would require firms to act irrationally. Also, firms act in the same manner as do firms in a competitive market, as oligopoly pricing is derived not from a formal commitment but from rational economic choice each firm makes on its own.

The antitrust authorities possess several features that make them the best candidates for applying the maverick model. Although the authorities commonly regulate industries by placing negative constraints on conduct, the tools they use in order to perform their traditional tasks do not have to be stretched too far to perform the unique tasks required by the maverick model. The authorities’ expertise in monitoring cost-price differences and analyzing the effects of changes in market structure could be used to determine the cost-price differences in a specific industry and the optimal price for the maverick, to chose the maverick firm and to monitor its prices. In order to apply the model effectively, the antitrust authorities should be

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246 Turner, supra, note 154.
given wide discretionary powers when to apply the model, as well as to determine the duration of the subsidy and its level. This discretion should be used to fix conditions which are suited to the specific industry, but without preventing efficient firms from making efficient investment and pricing strategies.

6.7.4 Limitations of the model

The analysis in the previous sections raised and attempted to provide solutions to some of the major criticisms that can be raised against the maverick model. The effects of a change in market structure and government-subsidized predation were discussed in sections 6.7.2D and 6.7.3A, respectively. The analysis below raises and analyzes several additional possible objections to the model.

A. Governmental Intervention

The most significant objection against the maverick model involves the high level of direct governmental intervention in the market. The government is required to take an active role and participate in changing the natural market conditions that exist in an oligopolistic industry, such that other firms, already operating in the market, will lose much of their profits. As Bishop states, there are limits to the economic intervention that will be tolerated in contemporary Western democracies.247

While this objection is a serious one, several factors mitigate greatly its significance. First and most importantly, the model imitates market conditions that might exist in any oligopolistic market. Lowering of tariff barriers that have sheltered a domestic oligopoly from competition of more efficient foreign firms may create similar market conditions. Second, governmental intervention is limited to setting the prices of one firm in the industry. By leaving the pricing, output and quality decisions of all other firms to their own decision-making processes, intervention is significantly limited. No firm is forced to act in a manner that is against its incentives, and there is no ongoing control except for the prices of the maverick. As noted above, the model creates incentives for the maverick to expand its output and ensure the quality of its widgets if compensation is based on a per unit basis. Third, no other less interventionist method has been proposed for dealing with oligopoly pricing. This

247 Bishop, supra, note 173, at p. 332.
proposal interferes with the firms’ decision process makings to a much lesser extent than direct regulation of price and other strategic decisions, by simply equating market conditions with those that would prevail in a competitive market setting. Accordingly, direct intervention is justified in order to increase welfare. Nonetheless, given the positive steps necessary to intervene in the market, it should not be applied unless there are clear benefits to its implementation and no other conventional regulatory tool can achieve efficient results.

Several methods can be employed in order to reduce the risk that government intervention may increase costs instead of benefits. First, the procedure can be supervised by a judicial body that will assess the reasonability of the competition agency’s actions. Preferably, the judicial body will be comprised, in part, of economists. The competition authority would have to justify the reasonability of its decision to intervene in a specific industry as well as the firm it chose as a maverick and the height and length of the subsidy before it can engage in such a procedure. Such a review might also reduce rent-seeking behavior by firms in non-oligopolistic markets that will try to portray their industries as oligopolistic in order to collect subsidies. It is suggested that private parties have no standing in such procedures, unless they point to a crucial fault in the government’s actions. Second, the choice of the maverick should be based on clear and verifiable parameters. Should there exist two firms with equal position to become a maverick, the choice should be based on an auction, whereas the firm that bids the lowest subsidy wins. The fear that intervention might cause a change in market structure that will have damaging long-term effects might be mitigated by a choice of price that is above the costs of the least efficient market player.

Finally, given the positive steps necessary to intervene in the market, it is suggested that the model not be applied unless there are clear benefits to its implementation and no other conventional regulatory tool can achieve efficient results. As suggested above, the model has the greatest chances of creating efficient results in an industry in which 3-6 firms operate that produce a homogenic product. The downside of limiting intervention to such industries is that it will also limit the indirect pressure on other industries to reduce their prices, as the fear of intervention is positively correlated in indirect price reductions. This can be partly mitigated by
random, albeit rare, intervention in some industries that do not exactly fit these characteristics.

Another objection might center on the fact that the oligopolists are simply taking advantage of the existing market conditions and that governmental intervention should not change these natural conditions. Much depends on the view one takes of the profits reaped by the oligopolistic firms in the pre-maverick stage. Once we view these profits as exploitation of concentrated markets, then the maverick model simply reduces profit levels to what could be obtained in a more competitive setting.

To reduce political pressures to limit intervention, the government should educate the public in the benefits of such a model by applying it to selected industries in which cost-price differences are significant, and which affect the vast majority of the population.

B. Perceived government favoritism
The model might appear to confer an unfair advantage on the maverick. However, the subsidy should be viewed as a tool which is necessary in order to increase consumer welfare and correct an existing market imperfection. It is similar to the lenient treatment that is bestowed on the first firm to come forward and admit participation in an illegal cartel. The only difference is that under the latter program firms are compensated by reduced criminal liability and under the maverick model they are compensated financially. This difference is not material, as in both cases it reduces the level of losses incurred by the firm. Moreover, the maverick’s profits are reduced below those in pre-maverick period.

Government favoritism might also arise if the model were to be applied only in several selected industries but not in others. Fairness does not require, however, that government act in the same manner in all industries. It can select those industries in which it chooses to operate and pose an unconsummated threat in others.

C. Possible Creation of Comparative Disadvantages
Until the maverick expands his output or his rivals match his prices some consumers will pay more than others for similar widgets. This problem is especially severe for consumers that are locked into long term contracts. If consumers are competitors, this

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248 Spratling, supra, note 237.
may create a comparative disadvantage to some competitors, as competitors might be required to pay different prices for equal inputs. Moreover, consumers of oligopolistic firms might be reluctant to enter into long term contracts, which are otherwise beneficial. This problem can be mitigated in several ways. First, consumers would, most likely, require contractual clauses that mandate the oligopolist to reduce his prices, once his rivals do so. Entry of a maverick is just one of a vast number of conditions that may affect the equilibrium price. Second, the government might need to exercise caution when choosing the industry in which to intervene, by avoiding intervention in industries in which competitors in downstream or upstream markets are likely to suffer significant comparative disadvantages as a result of governmental intervention.

D. Funding
Application of the maverick model may entail high costs. Such costs involve, mainly, subsidizing the maverick for some portion of the difference between his marginal cost and the price he could have charged under the oligopolistic market structure, and the costs of monitoring the maverick's prices. However, as argued above, reductions in allocative efficiency would, in most cases, more than cover these costs. Although consumer welfare is enhanced by lower prices, it is not necessarily the consumers who benefit from the maverick that are subsidizing it. This should, however be qualified. Consumer benefits accrue not only to those consumers that buy the widgets produced by the specific industry, but due to externalities created by a credible threat, the model might well reduce prices in many other oligopolistic markets in which firms will prefer to reduce prices in order to avoid governmental intervention.

6.8 Conclusions: Optimal oligopoly regulation for small economies

The omnipresence of oligopolistic market structures in many industries in a small economy intensify the need to regulate efficiently the conduct of oligopolists, and in particular, their coordinated conduct, in order to minimize the welfare losses that can accrue from such conduct whilst maximizing the realization of benefits that collaborations among competitors might create. This chapter analyzed the legal tools available to a small economy to combat welfare-reducing oligopoly conduct. In
particular, it suggested the regulation of facilitating practices and the introduction of a government-supported maverick into some oligopolistic industries. The latter is a novel method to combat oligopoly pricing by creating rivalry among the few which eliminates most of the problems of other proposed solutions. As was shown, the maverick model possesses great potential to increase significantly allocative and even productive efficiency in oligopolistic markets. Nonetheless, given the high degree of intervention in the market it entails it should not be applied unless there are clear benefits to its implementation and no other conventional regulatory tool can achieve efficient results.

Oligopoly markets can also be regulated indirectly by merger policy. Merger policy avoids problems of differentiation between agreements and pure oligopolistic conduct by prohibiting structural changes that may facilitate either. The concern for interdependent conduct includes any form of behavior that permits firms to implicitly coordinate their conduct and act interdependently. On the other hand, it may prevent the realization of scale and scope economies. The next chapter focuses on optimal merger policy.
Chapter 7: Merger Control Policy

7.1 Introduction

Merger control is one of the most powerful tools available to competition policy in order to regulate market power.¹ It acts as a safeguard against the strengthening or the creation of concentrated market structures that may lead to the exercise of market power and which are not justified by social gains. It does so by preventing certain changes in market structure by way of merger, rather than by conduct control methods.

Merger policy is potentially more influential in small economies than in large ones. While mergers often contribute to shaping the business landscape in response to changing market circumstances in large economies,² they are one of the main driving forces for changes in concentrated market structures in small economies.³ Most importantly, mergers are a major tool for the realization of potential efficiencies in oligopolistic markets that would otherwise remain unexploited due to cooperative profit-maximizing strategies that limit the incentives of firms to grow to optimal sizes internally. In oligopolistic markets the incentives of firms to attain efficient sizes are dampened by the incentives to limit total market output to monopolistic levels in order to maximize the profits of all firms operating in the industry. Where cheating on collusive agreements is easily detectable, such as when firms expand the capacity of their operations, such conduct may lead to retaliatory measures that reduce the profits for all.

¹ Mergers will be defined in Section 7.2.1 infra. For the purposes of this chapter, unless provided otherwise mergers are defined very broadly to include changes in ownership and control that may result in the strengthening or the creation of market power.
² For example, in recent years there has been a noticable trend in the EC of expansion of the geographic sphere of operations of firms located in one member state by buying firms in other member states active in the same product market. As well as creating firms on a continental scale, these deals are helping to dismantle the conglomerates that were constructed in the pre-single market days. “Small, but perfect for Reforming”, The Economist (January 23rd 1999), p. 55. For merger trends in the U.S. see, for example, Annual Report of the Council of Economic Advisers (Washington, D.C.: U.S. Government Printing Office, 1985) p. 187-202.
³ For example, one of the main driving forces to high concentration levels in the Israeli market was a wave of mergers of Israeli firms during the 60's. Michael Schefer, Israeli Industrial Organization (Tel Aviv: Open University Press) 78. Mergers also had an important effect on shaping the Canadian business landscape. See Douglas S. West, Modern Canadian Industrial Organization (NY: Harpers Collins College Publishers, 1994) p. 38-40.
firms operating in the market. Thus, it is only where the increase in capacity would enable the firm to reduce its costs significantly as to compensate for the loss of profits resulting from the increase in total market output or where the other firms competing in the market will likely respond by lowering their own output levels, that the firm will actually invest in cost-reducing internal growth. Merger, on the other hand, enables firms to achieve optimal sizes without necessarily increasing output, thereby eliminating or at least reducing the trade-off firms face between reduced costs and an oligopolistic equilibrium.

This different set of existing market conditions in small economies as compared to large ones also influence the design of optimal merger policy. The fact that already concentrated market structures might need to become further concentrated in order to achieve minimum efficient scale may confront competition authorities with a difficult choice of allowing further reductions in competition in order to reduce costs and possibly prices. An overly aggressive or rigid stance towards mergers may prevent desirable efficiency-enhancing mergers from taking place while at the same time entrenching existing concentrated market structures. While in general merger policy in small economies cannot aim at promoting competition, it can and should aim at the improvement of industrial structure. This need to rationalize is all the more significant as an economy becomes increasingly exposed to international competition. Moreover, an erroneous assessment of the economic effects of a merger is likely to have relatively greater impact on a small rather than on a large economy, given the importance of mergers as a tool for changing existing market structures.4

On the other hand, an overly permissive policy may entrench monopoly elements in a small market.5 Moreover, merger policy is the most powerful weapon available in the

5 See the Canadian Skeoch-McDonald Report on Competition Policy (Ottawa: Minister of Supply and Services, 1976) (“A small economy does not enjoy the same elbow-room in policy making [that a larger economy does]. A few bad merger decisions may strengthen monopolistic elements unduly or they may inhibit the development of firms of sufficient size to undertake production and marketing effectively in a world context…” p. 69).
competition policy arsenal to combat tacit collusion or cooperative behavior. Since such conduct cannot generally be directly reached, one should try to prevent the creation of market structures that tend to facilitate market power outcomes. Merger policy in a small economy should thus comprise a set of flexible instruments to mitigate competition concerns while promoting economic efficiency.

The practical effect of the above policy prescriptions is that small economies should not rely on structural variables alone or on rigid and limiting structural assumptions as the only or the main element to be considered in the design of competition policy. They should be more accommodating to efficiency defenses and rely more on a rule of reason analysis which takes into account the fact that concentration is a necessary evil in order to achieve scale and scope economies. Efficiency considerations should come into play at all stages of merger policy, from the formulation of jurisdictional thresholds to the balancing of competing considerations in specific cases. This chapter focuses on the tools available to small economies to achieve these goals.

Despite its admitted regulatory importance, until recently merger control has been absent from the competition laws of most small economies. One possible explanation for this phenomena is the adoption of an absolute value of competition approach in many large economies, which prohibited concentrated market structures that tend to create anti-competitive results without taking into account offsetting efficiencies. While such a policy may create overall efficient results in large economies given that most of their industries have a large number of firms that have already realized scale and scope economies, the adoption of such a policy in small economies would have resulted in a large number of false positive errors: A large number of beneficial mergers would have been prevented since they would have been incorrectly identified as harmful. In recognizing this effect, many small economies instead opted for no merger control. This

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6 See, for example, Turner’s classical paper that implicit collusion does not constitute an offense. Donald F. Turner, “The Definition of Agreements Under the Sherman Act: Conscious Parallelism and Refusals to Deal” (1962) 75 Harvard Law Rev. 655. This was recently restated in the U.S. case of Clamp-All Corp. V. Cast Iron Soil Pipe Institute, 851 F. 2d 478, 484 (1st Cir., 1988)(Justice Breyer stated that “[o]ligopoly pricing does not violate Section 1 of the Sherman Act “not because such pricing is desirable (it is not), but because it is close to impossible to devise a judicially enforceable remedy for ‘interdependent pricing.’”)


8 As recent as 1972 only four jurisdictions had adopted a merger review: U.S., Canada, Japan and the U.K.
policy was based on the assumption that leaving merger control to the market would produce more efficient results than the absolute value of competition approach. Also, it was assumed that control of abuse of dominance, and specifically price and output regulation, would reduce the incentives of firms to merge and create dominant firms. The stress on \textit{ex post} conduct regulation thus derived, partly, from the concern for false positives in merger control. Those small economies that did control mergers adopted very wide safe harbors.\textsuperscript{9}

This trend has changed profoundly in the last fifteen years as many economies, large and small, have added merger control to their competition policies.\textsuperscript{10} One of the major forces driving this trend was the development of economic theories and empirical tools which enable competition authorities and courts to perform a trade-off analysis between the harms to competition from increased concentration and the benefits from the realization of efficiencies. Still, merger control in many small economies diverges from merger policy in large economies in several ways that appear to reflect national size differences. As will be shown,\textsuperscript{11} those large economies that recognize efficiencies adopt a policy that leaves little room, in practice, for their consideration. Small economies often seek policies that are more flexible and may take into account conflicting considerations in a way that will ensure that efficiency-enhancing increases in concentration are not blockaded. Alternatively, small economies tend to adopt high market concentration thresholds for illegality.

The Chapter is organized as follows. Section 2 analyzes the theoretical and practical goals of merger policy in a small economy. The next four sections introduce and analyze the three main approaches to merger control: The absolute value of competition approach, the balancing approach, which balances the benefits from increased concentration against the harms from increased market power on a case-by-case basis, and the market regulation approach, which leaves the regulation of merger activity to the market's invisible hand. The effects of small size on the appropriateness of adopting each of these approaches, as well as the appropriateness of applying specific regulatory tools

\textsuperscript{9} See discussion in Section 7.6 \textit{infra}.
\textsuperscript{10} See Section 7.4.3 \textit{infra}.
\textsuperscript{11} See Section 7.5 \textit{infra}. 
such as specific concentration indexes in small economies is emphasized. Section 7 introduces and analyzes the effects of small size on mergers with international dimensions. Section 8 concludes the chapter by proposing an optimal merger policy for small economies.

Merger activity can be regulated by other tools outside the realm of competition policy, such as the tax system. These tools are beyond the scope of this thesis. It should nonetheless be noted that in order to create a coherent policy these policy instruments should be based on principles that do not conflict with competition policy merger control.

7.2 The Goals of Merger Control

Goals determine which mergers are considered to be beneficial and which are considered to be harmful. Regulatory tools are then used to achieve these goals effectively and efficiently. Accordingly, this section focuses on the goals of merger policy. We start by defining what constitutes a merger and by analyzing the economic effects of mergers. These issues are important building blocks in the determination of the goals of merger control.

7.2.1 Defining What Constitutes a Merger

Although different jurisdictions define mergers in a different manner, all definitions focus on changes in ownership or control between different business entities that enable one entity to control, directly or indirectly, *de jure or de facto*, a significant part of the assets or the decision process of another firm, or that create a new entity which is comprised of the merging entities. In addition, merger control in many jurisdictions also encompasses

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12 For example, in AAC/Lonhro the EC Commission acknowledged that control can be based not only on shares and voting rights, but also on the presence among institutional shareholders of a shareholder with particular expertise in the market concerned. Evidence from polls held in Lonhro shareholders’ meetings showed that a holding of less that 28% of the shares was consistently sufficient to command more than 50% of the votes cast and thus to exert control.

13 See, for example, the European Council Regulation (EEC) 4046/89 On the Control of Concentrations Between Undertakings (came into force on September 21st 1990)(hereinafter: “EC Merger Regulation”), which applies to concentrations which occur where (a) two previously independent undertakings merge; or (b) an undertaking or a person already controlling an undertaking acquires control over the whole or parts of another undertaking; or (c) two or more undertakings form a joint venture. This criterion was also adopted by other European jurisdictions, including Belgium’s Law on the Protection of Economic
some types of joint ventures among firms in which they all share control over another entity.\textsuperscript{14} Many jurisdictions adopt a qualitative rather than a quantitative criteria, that leaves much discretion to the relevant competition authorities and to the courts, while in others the law contains specific thresholds for mergers. Such thresholds are usually defined expansively as to cast the net wide enough to catch all transactions that may have adverse competitive effects on a specific market.\textsuperscript{15} As the question of control is one of corporate law more than competition law, it will not be analyzed in detail. Nonetheless, it should be noted that merger definition can and often is used to limit the scope of merger review. Accordingly, in many jurisdictions, the anti-competitive results of a merger also constitute part of the definition.\textsuperscript{16}

7.2.2 General Types of Mergers

\begin{itemize}
\item Competition 1991, Italy's Law No. 287 of October 10\textsuperscript{th} 1990, and the Netherland's Dutch Competition Act 1997. See also the Israeli Restrictive Trade Practices Law 1988 (Merger defined expansively to include the direct or indirect (a) transfer of the principal (functionally, but not necessarily financially) assets of one company to another, or (b) transfer of shares and rights in one company to another, resulting in the transferee either owning 25% of the outstanding capital, enjoying more than 25% of the voting rights, or more than 25% of the company's profits, or enjoying the right to appoint more than one-fourth of the company's directors); Austria's Cartel Act 1988 (Mergers defined as any connections between undertakings which confer on one of the parties direct or indirect controlling influence on another undertaking); Section 91 of Canada's Competition Act 1986 ("Merger means the acquisition or establishment, direct or indirect, by one or more persons, whether by purchase or lease of shares or assets, by amalgamation or by combination or otherwise, of control over or significant interest in the whole or a part of a business of a competitor, supplier, customer or other person").
\item Jurisdictions which regulate joint ventures, or some thereof, under merger control include, inter alia, Australia, Austria, Canada, EC (Full-function joint ventures as of March 1998), Belgium, Italy. Joint ventures are not caught by merger control in several jurisdictions, including in Israel and New Zealand. Getting the Deal Through- The International Regulation of Mergers and Joint Ventures (London: Law Business Research Ltd., 1999, 3\textsuperscript{rd} ed.)
\item For an exceptionally low threshold see Japan's Anti-Monopoly Law 1947 as amended in 1998, which holds that a company engaged in financial business shall not acquire or hold stock of another company in Japan if by so doing it holds an excess of 5% of the total outstanding stock of such company, without authorization from the Japanese Fair Trade Commission.
\item See, for example, the Australian Trade Practices Act 1974 (Defining a merger as "direct or indirect acquisitions of shares or assets by corporations which have the effect or are likely to have the effect of substantially lessening competition in a substantial market"); Luxemburg's Act Governing Restrictive Commercial Practices 1970 (Section 1 of the Act applies to "all agreements between enterprises, all decisions of groups and enterprises and all organized dealings which have as a purpose or as an effect the prevention, limitation, or distortion of competition against the general interest." This provision is so expansive as to catch also mergers or acquisitions); New Zealand's Commerce Act 1986 (Prohibits acquisitions of assets of a business or shares if, as a result, the acquisition would, or would be likely, to result in a dominant position being acquired or strengthened in the market.)
\end{itemize}
There are three general types of mergers. Horizontal Mergers are defined as those in which rivals operating in the same market merge. Vertical mergers are those between two firms with potential or actual buyer-seller relationships. All other mergers are classified as conglomerate mergers, which can be further subdivided into three classes. A product extension merger occurs when firms merge who sell noncompetitive products but use related marketing channels or production processes. A market extension merger is the joining of two firms selling the same product but in separate geographic markets. Finally, there are “pure” conglomerate mergers between firms with no obvious relationship of any kind.\(^{17}\) Of course, a merger may fall under more than one category.

7.2.3 The Economic Effects of Mergers

An important issue in analyzing merger control is the recognition of how changes in ownership and control patterns affect the performance of firms as well as the industry in which they operate. A horizontal merger reduces, by definition, the number of competitors in the market,\(^{18}\) and the merged entity ordinarily has a larger market share than either of the merging parties had before the merger. This reduction in the number of firms and increase in market shares may raise two basic competition policy concerns. First, the merger may create substantial unilateral market power, thus enabling the merged entity to unilaterally raise prices and to restrict output.\(^{19}\) Of course, if the increase in market share does not create efficiencies, it may well be that market forces will eventually erode the merged entity’s position. However, this process might be lengthy or inhibited by other obstacles, some created by the merging entity if competition law enforcement is not perfect and timely, and some created by the new market structure. The creation or strengthening of a dominant market player may increase prices not only of the merged entity, but also of its fringe competitors, if competitors take price as given.\(^{20}\)

\(^{17}\) This categorization was first adopted by the U.S. FTC in its Report on Larger Mergers in Manufacturing and Mining 1948-67 (FTC, 1968) at p. 5.

\(^{18}\) An exception occurs where the one of the merging entities is a failing firm that would otherwise exit the market.


\(^{20}\) Under the dominant firm model one firm sets the market price which is then taken as a given and fixed by all other sellers. Other sellers typically have limited capacities, so that they cannot supply the whole market.
Second, by increasing the level of concentration in the relevant market or by changing other market conditions the merger may strengthen the ability of the remaining market participants to coordinate their strategic choices of output, price and quality or any other dimension, by engaging in explicit or implicit interdependent behavior.\textsuperscript{21} As elaborated in Chapter 6 above, these concerns build on oligopoly theory. Much depends on the factors that influence firms’ ability and incentives to act interdependently. While the unsettled nature of oligopolistic theory may require great cautiousness in blocking mergers solely on concerns over interdependence, in a small, concentrated markets such concerns should not be overlooked.\textsuperscript{22} 

A vertical merger may create issues of market foreclosure if one of the merging entities has substantial market power in its market. For example, if a dominant producer of a particular product were to vertically merge with the main wholesaler in that market, its rivals may face high barriers to selling their products in the market. Backwards integration with a dominant producer of an essential input may also pose similar problems.\textsuperscript{23} 

Conglomerate mergers may also pose a threat to competition by the elimination of a potential rival, similar to horizontal mergers. In addition, entry of a conglomerate into a market might create high entry barriers for other potential competitors that may not enter the market.\textsuperscript{24} Most importantly for small economies, mergers between firms controlled by

\textsuperscript{21} R.D. Jacquemin and M.E. Slade, “Cartels, Collusion and Horizontal Mergers”, and C. Shapiro, “Theories of Oligopoly Behavior” in R. Schmalensee and R. Willig, \textit{Handbook of Industrial Organization} (Amsterdam: Elsevier Science Publishers, 1989) Vol. I, chapters 7 and 6 respectively. In some situations horizontal mergers may reduce the incentives of firms to collude tacitly. Davidson and Deneckere show that when a tacitly collusive agreement is enforced by a trigger price strategy that is not sustainable, a merger reduces the chance that collusion becomes sustainable in the future. The intuition behind this result is that enforcement of an agreement is easier when the threat point (the non-cooperative outcome) is less desirable. A merger may increase the profitability of outside firms and, in particular, the threat point becomes more profitable. As losses due to retaliation decline, collusion becomes more difficult to sustain. C. Davidson and R. Deneckere “Horizontal Mergers and Collusive Behavior” (1984) 2 \textit{Inter. J. of Indus. Org.} 117.

\textsuperscript{22} Andrew Baziliauskas and Thomas W. Ross, “Lessening of Competition in Mergers under the Competition Act: Unilateral and Interdependence Effects” (unpublished manuscript, April 14, 1999).


\textsuperscript{24} \textit{Ibid}, at pp. 323-5, 335-40, 528-9.
conglomerates may reduce challenges to incumbent monopolies by engaging in competition for the market.

Mergers may also raise concerns on the grounds that decisions taken by large corporations may have consequences that extend well beyond specific industries to produce political and social as well as “purely” economic results. Economic concerns about large absolute firm size derive from the potential for competitive disadvantages bestowed upon the smaller firms by limited capital, distribution, advertising channels and production factors. The concern is also not purely economic in that large firms might translate financial strength into political power and influence legislation or regulation to their benefit at the expense of the rest of society. Other socio-political concerns focus on the strengthening of market power that may be antithetical to a balanced distribution of wealth, and effects on employment levels.

At the same time, a merger may enhance efficiency by integrating the firms’ facilities and by allowing firms to achieve efficiencies which were not attainable under the pre-merger market structure either because of firm interdependence or the absolute size of firms or due to other obstacles. Most importantly for small economies, mergers may allow firms to overcome obstacles to efficient size that arise in oligopolistic structures. Permitting a sizeable horizontal merger may increase long-run productive efficiency if the potential merging parties have strong respect for their mutual interdependence and would not build full-sized new plants independently for fear of either depressing prices or carrying too heavy an excess capacity burden, or if they decline to compete on a price basis to accumulate longer production runs and enhance their specialization. Some of the benefits of reduced costs may even be passed-on to consumers if the cost advantage is great enough that the post-merger price is lower than the pre-merger price. Achieving efficiencies is more important as domestic firms are becoming increasingly exposed to international trade, especially in markets where production on efficient scale is crucial to effective competition.

25 See Section 7.4.2 B. infra.
26 See Chapter 1, supra.
27 See Chapter 6 supra.
Comparing the extent to which mergers will enable the merging parties to exercise market power and earn supra-competitive profits to the efficiencies created has been recognized as a highly complex and controversial subject in industrial organization economics. The original modeling of this tradeoff was undertaken by Williamson.28 Williamson argued that for net allocative effects to be negative, a merger which yields non-trivial economies must produce substantial market power and result in relatively large price increases.29 Given the simplicity of the model, however, any application of the theory in practice requires a more complex analysis to account for various other factors, including pre-existing market power,30 differing demand assumptions, and other firms’ competitive responses to increased market power.31 Furthermore, the Williamsonian analysis has been concerned with static cost savings, without taking into account the temporal effects of an increase in market power. To the extent that good predictions can be made about the effects of a merger on technological progress, this information should also be incorporated.32 Despite these apparent weaknesses, the model still stands for its basic message, which is to recognize the potential benefits of mergers in addition to their costs.

A flexible merger approach may also be justified by the role mergers play as important catalysts for efficiency and for new investments. The threat of take-over bids by another firm creates important incentives for management to run the firm efficiently, so that the share price will reflect its actual potential for profitability.33 Limiting the ability of firms to take-over inefficient firms reduces these incentives. Moreover, the incentive to set up a firm, invest risk capital and develop new products may be diminished if the opportunities to sell the firm as an ongoing enterprise are reduced.34 Given that a merger is one of the main ways to realize the potential profitability of an

29 Ibid.
enterprise, a strict merger policy that creates exit barriers for investors would have implications for the incentives to invest in firms in the first place. These considerations are especially important in small economies, in which many proposed take-overs or mergers may be the most realistic way to realize efficiencies while creating or strengthening concentrated market structures.

Can the internal growth of firms be relied upon to regulate effectively the incentives of firms to grow to optimal sizes, so that merger policy can be more restrictive? While internal growth may enable firms to attain minimum efficient scales, it cannot be relied upon in small economies to regulate market growth effectively. First, mergers are more timely than internal growth. Second, internal growth may not enable the firm to achieve all of the efficiencies a merger may offer, such as better management or the use of know-how and intellectual property over a larger scope of production. Finally, and most importantly for a concentrated market, as noted above in an oligopolistic market the incentives of firms to attain efficient sizes are dampened by the incentives to limit total market output to monopolistic levels in order to maximize the profits of all firms operating in the industry.

Unfortunately, the market does not differentiate between mergers that enhance and those that reduce social welfare. Empirical research on the effects of mergers on the productivity of business assets is highly inconclusive.35 But even if the market encouraged only mergers that are privately profitable, such mergers need not increase total welfare due to merger externalities. Accordingly, merger policy is an important tool in regulating market structure and its resulting market conduct.

7.2.4 The Goals of Merger Review
The choice of goals for merger policy involves major value judgements. An important issue is whether merger control should be mainly focused on achieving efficiency or on preventing concentrations of economic power. Other social or political goals may also

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impinge on merger policy. While there is no "correct" set of goals, small size influences some of the trade-offs that policy makers face when choosing among conflicting goals.

A small economy cannot afford to protect competition rather than its outcomes. The concerns for ensuring that a sufficient number of competitors operate in each market should be subordinated in small economies to the more compelling necessity of servicing a small population efficiently and to the objective of promoting domestic firms that can compete effectively with foreign firms in a world of rapidly decreasing trade barriers.  

Given high concentration levels which are justified by scale and scope economies, protection of competition would blockade many mergers which may have positive welfare effects on the economy. This, in turn, would significantly reduce consumer, producer and total welfare. Producers would not, in many cases, be able to attain minimum efficient scales and thus reduce their production costs, and consumers would not be able to enjoy lower prices that rest on lower costs of production. Moreover, it will not enable domestic firms to attain the minimum efficient scale which is necessary for them to compete effectively in open markets. The fact that a domestic firm controls a large percentage of the market shares in a small economy does not necessarily indicate that its absolute size is large enough in order to compete on a world scale or with large importers situated in other economies. Efficient, large domestic enterprises may be better positioned to meet international competition, since they will be better able to enter those markets if they have a strong home market which gives them the critical mass to become world players. Protection of competition may thereby exacerbate the inherent

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37 The importance of merger control in enabling firms to competing effectively in world markets has been recognized in many of small economies. For Canada see, for example, Sanderson, supra, note 4; For Israel see Restrictive Trade Practices Law Proposal 1983, Legislative Proposals 1647 (7.11.1983)

38 Even a large jurisdiction such as the EC has recognized considerations of international competitiveness of its firms in its merger policy. See, for example, the approval by the EC Commission of the joint bid by GEC and Siemens for fellow defense and telecommunications electronics hardware manufacturer Lessey. Even though the merger significantly increased concentration among European manufacturers, it was allowed given that the relevant market was an international one in which competitiveness is determined based on the ability to invest in the next generation of equipment. Derek Ridyard, “An Economic Perspective on the EEC Merger Regulation” (1990) 6 ECLR 247, at p. 252.

problems of small economies by increasing levels of foreign trade and possibly even eliminating domestic production. Similar arguments should prevent a small economy from giving paramountcy to considerations of the viability for small businesses, as such.

An important debate focuses on whether merger policy should maximize consumer or total welfare. The consumer welfare approach strives to maximize consumer surplus, which is the difference between what consumers would willingly have paid for the quantity they consumed and the actual price they paid for that quantity. This standard will only be met if in the post-merger situation the price will not increase beyond the pre-merger price, because the new efficiencies are so significant as to cause their profit-maximizing price not to rise above the pre-merger price.40

Under the total welfare approach a merger is permitted if it increases total surplus, which includes both consumer and producer surplus, notwithstanding an increase in prices above competitive levels. In economic terms, if the cost savings from the merger exceed the dead weight loss caused by the expected anti-competitive price increase (producer surplus minus consumer surplus) the merger should go through. This total surplus approach ignores the fact that the anti-competitive price increase would cause a wealth transfer from consumers to producers.

The two standards will yield similar results if all merger efficiencies reduce marginal costs. However, they create different enforcement decisions where the merger creates fixed-cost savings. In the short run, fixed cost savings normally do not affect consumer surplus but they necessarily affect total surplus by affecting profit. The two standards may also yield different results where only some of the savings reduce marginal costs, since under the consumer welfare standard a merger will not be approved unless the percentage reduction in marginal cost resulting from efficiencies is greater than the percentage increase in the price-cost margin caused by the increased market power.41

Porter also argues that domestic rivalry rather than national dominance is more likely to breed companies that are international competitive. In a small economy creating rivalry might be in tension with efficiency.

40 In a concentrated market, large customers may nonetheless decline to take advantage of the lower costs of the merged entity due to a business strategy that reduces the risk for concentrated suppliers. Many firms adopt a two or three firm supply sourcing policy for competitive leverage, risk and diversification reasons. Large customers may thus shift part of their purchases to alternative suppliers after the merger. Khemani, supra, note 4, at p. 229.

The consumer welfare standard thus sets a much higher threshold for approving mergers than the total welfare standard.

Small size sharpens the dilemma between these two basic standards since in a much higher percentage of cases the outcome will be determined by the choice of standard, given the already existing high concentration levels in many industries. Small size may tip the balance in favor of the total welfare standard, for several reasons. First and foremost, given the concentrated nature of most markets in small economies, a policy that requires a high standard of proof of increase in (or at least no negative effect upon) consumer welfare may well lead to market stagnation of oligopolistic structures that not only charge supra-competitive prices, but at the same time do not achieve productive efficiency. The total welfare approach may thus reduce productive inefficiency and may also reduce dynamic inefficiency.

Second, the consumer welfare approach may conflict with the goal of enhancing the international competitiveness of domestic firms. One interesting example involves rum producers from the Caribbean islands. The Caribbean domestic market for rum is very competitive. At the same time, high distribution and marketing costs in potential foreign markets, such as the EU, create significant obstacles to the export of rum. A merger or a joint venture among rum producers that would enable them to realize scale economies in distribution and marketing abroad and to export rum would increase total welfare if the revenues from sales in other markets are significant. However, if firms are not prevented from charging different prices for their products abroad and in their home markets, consumers in the domestic markets will most likely be worse off given probable cooperative conduct among producers (especially if the cost savings relate to distribution and marketing of the products abroad and do not affect the production or distribution prices in the domestic market). In such situations the consumer welfare standard will clash with the goals of increasing total welfare as well as the international competitiveness of firms. In a somewhat ironic manner, anti-dumping laws, which are

42 A third approach approves only mergers with Pareto-superior changes, where at least one person is made better off and no other person looses. However, compensating the specific losers from changes in market structure is usually impossible and far too expensive.
43 Richard Whish, presentation at the International Conference on Competition policies in Small Market Economies and Small Island States (Malta, May 24, 1998).
basically enacted to protect foreign consumers, may well protect domestic consumers if international markets are competitive and if domestic producers find it more profitable to reduce prices in the domestic market rather than forego opportunities for international trade.

In addition, producer surplus will generally be reinvested in the economy and thus produce further gains in domestic welfare. Finally, the effects of most mergers are spread over a large number of consumers or absorbed by firms with diversified shareholders. The effect on any one individual is so small that potential winners and losers might be risk-neutral over the relevant income range, and when asked to select a principle *ex ante* they may well choose a total welfare effect.44

A major problem with a total welfare standard, identified by Ross, is that in a world with high levels of international cross-holdings45 it might reduce domestic total welfare rather than increase it. If the merging entities are controlled mostly or solely by foreign shareholders or the production facilities are located outside the jurisdiction, then an approach that maximizes total welfare and ignores the nationality of shareholders may well increase total world welfare, but not domestic welfare, since the cost savings and profits from the merger may accrue elsewhere.46 Only where it can be assumed with a high degree of certainty that most of the profits made by shareholders in the domestic market will be spent in it will this approach necessarily maximize total domestic welfare.

This problem can be at least partially overcome if the domestic economy creates incentive mechanisms for the benefactors to reinvest their profits in the same jurisdiction, or the domestic economy creates better opportunities to invest than elsewhere. Alternatively, in recognizing this problem, Australia’s competition authority has specifically stated that while applying the total welfare approach, all welfare benefits must accrue to domestic firms or consumers. To the extent that wealth transfer is received by foreign owners, such welfare transfers are not taken into account in recognizing the merger’s benefits, and the cost savings from the merger should be sufficient to offset both the dead weight loss and the wealth transfer enjoyed by the foreign owners. Similarly, if

45 See Chapter 1 *supra*.
the production facilities are located abroad, the benefits from freeing of assets for other productive uses will not be counted against the dead-weight loss resulting from the merger.\textsuperscript{47}

Adoption of a rule that applies a different standard to mergers between firms that are held primarily by domestic shareholders and to firms that are held primarily by foreign shareholders is, nonetheless, problematic. Such a rule will most likely contradict the national treatment provision in international agreements. It also does not ensure that domestic producers would reinvest their profits in the domestic economy so that total welfare will, in fact, be maximized. The New Zealand High Court in \textit{Telecom} rejected the Australian approach by stating that \textquotedblleft[w]e reject any view that profits earned by overseas investment in this country are necessarily to be regarded as a drain on New Zealand. New Zealand seeks to be a member of a liberal multilateral trading and investment community. Consistent with this stance, we observe that improvements in international efficiency create gains from trade and investment which, from a long run perspective, benefit the New Zealand public.\textsuperscript{48} At the same time, the New Zealand Commerce Commission Guidelines to the Analysis of Public Benefits and Detriments\textsuperscript{49} specify clearly that the public is the public of New Zealand. This may be interpreted, in practice, in a similar fashion to the Australian approach. The Canadian competition authorities credit the merger with profits and quasi-rents on reduced levels of imports or on exports attributable to the merger. However, it does not differentiate between foreign-owned and domestically owned firms.\textsuperscript{50} It should nonetheless be emphasized that a consumer welfare standard, while eliminating problems of transfers of wealth from domestic consumers to foreign producers, will also preclude many domestic welfare enhancing mergers between

\textsuperscript{47} ACCC, Australian Merger Guidelines.

\textsuperscript{48} \textit{Telecom Corporation of NZ Ltd. V. Commerce Commission} [1992] NZAR 193.

\textsuperscript{49} The New Zealand Commerce Commission Guidelines to the Analysis of Public Benefits and Detriments in the Context of the Commerce Act (October 1994).

\textsuperscript{50} Section 96(2) of the \textit{Competition Act 1986} requires the Tribunal to consider when analyzing the efficiencies brought about by a proposed merger whether a merger is likely to increase significantly the real value of exports or significantly substitute domestic products for imported products.
domestic firms. The impact of such a rule on total domestic welfare depends on the distribution of profits resulting from the merger.51

Warren-Boulton raises several additional reasons why adopting a legal standard based on total welfare may not maximize total welfare in practice. First, as Posner pointed out, the difference between a “consumer surplus” and a “total welfare” standard narrows to the extent that monopoly profits or rents are dissipated in the process of obtaining and defending market power. If profits are likely to be dissipated, the best estimate of total welfare impact of a merger may be its effect on consumer surplus.52 However, it is unclear what percentage of profits is actually dissipated in such a manner.

Second, the enforcement agencies might be better able to predict a merger’s effect on prices (or at least on price-cost margins) than on total welfare. Total welfare predictions involve a number of unsettled analytical and qualitative issues. Such a task would place a formidable burden of agencies, and more so on courts. However, while it is true that total welfare is hard to predict, when such predictions can be made there is a strong case in favor of adopting such a standard, especially in small economies.

Merger control may also be based on broader social or industrial policy goals, such as national security and regional employment policy. For example, in Australia mergers involving foreign investors investing in Australia are subject to the provisions of the Foreign Acquisitions and Takeovers Act 1975. Under the Act, mergers that are considered to be contrary to the national interest may be prohibited.

7.2.5 Tests for Illegality
The merger policy of all jurisdictions is aimed at preventing mergers that have or are likely to have anti-competitive effects, unless offsetting considerations are present. Two major illegality tests can be identified. The first prohibits mergers that will or are likely to prevent or lessen competition in the market substantially.53 This test is generally interpreted as preventing mergers that will significantly increase the market power of

51 McFetridge, supra, note 31. If most of the gains from the merger accrue to the target firm’s shareholders, then if the bidder is foreign and the target firm is domestic, defining the effects of lessening of competition on the domestic economy to include only consumer surplus will result in incorrect assessments.
52 Boulton, supra, note 41, at p. 340.
53 For example, section 96 of the Canadian Competition Act 1986; Section 50 of the Australian Trade Practices Act.
firms operating in the market. As noted above, the concerns center on two main themes: unilateral exercise of market power, and implicit or explicit cooperative conduct. The second illegality test prohibits mergers that create or strengthen a dominant position in the relevant market. Some jurisdictions rely on this test exclusively, while others adopt both illegality thresholds as alternatives or complements.

The behavioral lessening of competition test is more suitable for small economies than the structural creation or strengthening of dominance test. In a small economy, a larger percentage of mergers would tend to create a dominant firm. Yet, these mergers do not necessarily lessen competition. For example, if a market is already characterized by a tight oligopoly that coordinates its conduct by reducing output and increasing price, a merger will not necessarily lessen competition, since competition is non-existent. Rather, a merger may help remedy a situation where firms do not realize scale economies. Such a merger should not be prevented, unless a long-term analysis of the market points to some market conditions that might break-down the existing oligopoly and introduce competition in the market. Similarly, where a merger enables the merging firms to compete effectively with an existing firm which has a dominant position or with foreign importers, such a merger should be allowed, although it may create a dominant position for the new merged entity (especially where dominance can be found with market shares lower than 50%). A different policy may well entrench an existing market structure where one firm that attained minimum efficient scale had dominant market power and other firms are price-followers and cannot compete with it effectively.

Moreover, mergers that do not create a dominant position may nonetheless lessen competition significantly. Most importantly, the dominance test may not apply to the coordinated interaction of firms as a method of exercising market power, which is a

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54 For example, the New Zealand Commerce Act 1986 Section 3a; EC Merger Regulation, supra, note 13, Art. 2.
55 For the two standards as alternatives see, for example, Section 7 of the U.S. Clayton Act. For the two standards as complements see, for example, the Swiss Federal Act on Cartels and Other Limitations to Competition 1995.
56 This was acknowledged, for example, in the U.S. case of U.S. v. Country Lake Foods, Inc., 754 F. Supp. 669, 680 (D. Minn. 1990) (Merger of milk processing facilities would enhance competition by creating a second large producer which could effectively compete with the market leader). See also the Australian Du Pont case in which the ACCC issued an authorization for a proposed joint venture as it was likely to lead to a substantial increase in domestic production, at the expense of imports. Du Pont (Australia) Ltd and Ors. (1996) ATFR (com.) 50-231, p. 56,493
major concern in small economies, unless the illegality test is interpreted widely to include joint dominance. Also, markets for differentiated products will generally permit the exercise of some degree of unilateral market power by firms which are not dominant, but which have a large market share and strong brand loyalty. Such mergers could substantially lessen competition.

7.3 The Three Major Approaches Towards Merger Control

Three major approaches towards merger control can be identified. The first is the absolute value approach. Under this approach, every merger that is likely to reduce competition is prohibited, even if such a merger may enhance efficiency or achieve other socio-political goals. Efficiency comes into play, if at all, in determining the thresholds for mergers that are presumed to create anti-competitive effects. The main rationale of merger policy under this approach is allocative efficiency, although it may also be based on concerns regarding distribution and decentralization of aggregate market power as valid objectives. This approach is predominant in most large jurisdictions around the world.

The second, balancing approach balances the anti-competitive effects of the merger against the efficiencies it creates or other socio-political goals. This approach views competition as an important but a non-conclusive consideration, and is basically neutral towards mergers that create firms with large size or significant market shares. This is not to say that structural considerations play no role under this approach.

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58 The EC Commission and courts have interpreted the EC Merger Regulation to apply to joint dominance as well as to the unilateral exercise of market power. See Joined Cases C-68/94 France v. Commission and C-30/95 SCPA and EMC v. Commission (March 31 1998)("Kali and Salz").

59 This differentiation is somewhat similar to that adopted by the OECD between the structural and the cost-benefit approach. OECD, Merger Policies and Recent Trends in Mergers (Paris, OECD, 1984).

60 Khemani, supra, note 4, at p. 222.
However, such considerations are used as only one of the relevant factors in assessing the overall effects of the merger. Among jurisdictions which have adopted this approach, differences exist as to what constitutes benefits from a merger. Some jurisdictions incorporate a broad range of social, economic and political considerations. Others emphasize efficiency as the overriding objective of competition policy. Proponents of this latter approach usually follow the Chicago school in recognizing one unequivocal goal for merger policy— the pursuit of economic efficiency. The balancing approach has recently been adopted in most small economies, as well as by the U.S. competition agencies and most U.S. courts.

The third approach leaves merger control to the market's invisible hand. Until recently, the market regulation approach was adopted as a default option by small economies which declined to adopt the absolute value approach, but had no tools to implement the balancing approach. Each approach can be further broken down into other sub-categories, depending on the height of the thresholds and the factors deemed relevant for merger analysis.

Interestingly, most competition laws that adopt one of the first two approaches are stated in broad and similar terms that do not allow a casual observer to determine which approach was adopted. Rather, the adopted approach is based on the interpretation of the relevant illegality test. Jurisdictions which adopt the absolute value of competition approach interpret competition as rivalry. Accordingly, every merger that reduces significantly rivalry in the market is prohibited. Jurisdictions that adopt the balancing approach interpret competition as the fruits of what competition is said to achieve—namely economic efficiency.

The following three sections introduce and analyze the three approaches in detail in order to determine their effectiveness and efficiency in regulating mergers in small economies. The analysis will show that the absolute value approach is clearly unsuited for small economies. The balancing approach is most suitable for small economies, although much depends on the tools that implement it in practice, such as thresholds, burdens of proof and the type of information deemed relevant to merger control. These two approaches share two stages in merger analysis: Definition of the relevant market and the modelling of the anti-competitive effects of a proposed merger. The balancing
approach then adds a third stage, in which the efficiencies involved in the proposed merger are analyzed and balanced against its anti-competitive effects. The ensuing analysis follows these stages.

7.4 The Absolute Value of Competition Approach

The absolute value of competition approach places decisive weight on the reduction in actual or potential competition that may result from a merger, by creating a per se violation whenever a merger is found to create anti-competitive effects. Efficiencies play a role, if at all, in setting the thresholds for illegality and in predicting the competitive conduct of firms in the post-merger situation. This approach is governed by paradigms which suggest that as industries become more concentrated firms within them would naturally find monopolistic or oligopolistic conduct more profitable, and the result would be poor industrial performance. Higher levels of market concentration are viewed as increasing the probability of tacit or explicit collusion among firms. Although high concentration levels may be necessary in order to attain available efficiencies, such considerations are largely ignored in predicting the performance of the post-merger market. Accordingly, this approach implies that the control of market power can be performed by preserving an unconcentrated environment through the prohibition of mergers beyond a specific market share or size threshold.61

Most large economies tend, or have tended until recently, to apply this approach. The underlying assumption is that there is no need for high concentration levels to achieve efficiency and such concentration levels should thus be prohibited. Such assumption generally holds in most markets in a large economy, as they tend to have a large number of firms that can operate efficiently. The dilemma between increased efficiency from the realization of scale economies, on the one hand, and the increase in market power and reduction in competition which accompany it is thus, in most cases, non existent in a large economy. Moreover, an erroneous assessment of the economic

61 Ibid, at p. 217.
effects of a merger is likely to have a relatively smaller impact on a large than in small economy.  

The following section provides a brief comparative analysis of the merger control regimes in several large economies, including the U.S., EU, France, Germany, and Japan, which have adopted the absolute value approach. It also analyzes and distinguishes the policies of several small economies, such as Australia, New Zealand, Israel and Sweden that have adopted the absolute value approach.

7.4.1 Examples of Jurisdictions which have adopted the Absolute Value Approach

A. The U.S. approach-Prima Facie Rules of Illegality

Section 7 of the Clayton Act is the controlling statute with respect to mergers. As amended, Section 7 prohibits any merger "where in any line of commerce, in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly." Until the 1980’s, this statute was interpreted as adopting the absolute value approach. Merger policy was based on rigid structural assumptions that implied that high degrees of concentration were harmful to the economy and thus should be prohibited, even if they entailed improved efficiency. This approach was driven not only by industrial organization theory and administrative considerations that took into account the vast number of mergers that fall subject to the jurisdiction of the courts, but was also rooted in a Jeffersonian structuralist and populist philosophy which gave decisive weight to concerns for preserving small businesses and to the dispersion of aggregate economic power, even if this meant occasional higher costs and prices.  

This approach can best be illustrated by the two landmark decisions of the U.S. Supreme Court in Proctor and Gamble and Philadelphia National Bank. In Proctor  

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62 Khemani, supra, note 4, p. 295-6.  
63 Hovenkamp goes further to suggest that mergers were prohibited because they might improve efficiency and thus create higher entry barriers into their markets. Herbert Hovenkamp, Federal Antitrust Policy: The Law and Its Practice (Minnesota: West Publishing, 1994).  
64 This assumption contrasts of views of some U.S. scholars who have argued that high concentration - profit relationships may reflect efficiencies or superior competitive performance. See, for example, H. Demsetz, "Two Systems of Belief about Monopoly" in H.J. Goldschmid et al. (eds.), Industrial Concentration: The New Learning (Boston: Little, Brown and Co., 1974).  
*and Gamble* the Supreme Court stated that “possible economies cannot be used as a defense to illegality” in merger cases.\(^67\) The rejection of efficiency arguments was based on an interpretation of the relevant *Clayton Act* provisions as favoring competition (rather than its outcome), which would be harmed if firms achieved economies by increasing levels of concentration in the market. Earlier, in *Philadelphia National Bank*, the Supreme Court established that “a merger, the effect of which ‘may be substantially to lessen competition’ is not saved because, on some ultimate reckoning of social or economic debits and credits, it may be deemed beneficial.”\(^68\) In essence, the Court stated that there can be no defense once an anti-competitive finding has been established.

Following this choice of goals, competition agencies and courts have developed unitary market share rules for *prima facie* illegality that apply to all industries with the same levels of concentration, based on the presumption that higher concentration creates negative effects on competition. *Philadelphia National Bank*\(^69\) first established the market-share-based presumption of illegality which had driven merger control until the publication of the merger guidelines by the antitrust authorities. Under this rule, a plaintiff may make a *prima facie* showing that the merger will result in anti-competitive effects by establishing that the merged entity will have an undue share of the relevant market.\(^70\) This burden of proof was especially easy to meet as courts adopted extremely low levels of concentration as thresholds for illegality, in order to prevent the agglomeration of market power in its incipieny.\(^71\) Once such a showing is made, a

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\(^66\) *United States v. Philadelphia Nat’l Bank*, 374 U.S. 321, 371. See also *Ford Motor Co. v. United States* 405 U.S. 562 (1972) 569-70 (1972) (Specifically rejecting the argument that an otherwise unlawful merger that results in a “more vigorous and effective competition” does not violate the antitrust laws).

\(^67\) *Proctor and Gamble, supra*, note 65.

\(^68\) *Philadelphia National Bank, supra*, note 66.

\(^69\) *Ibid.*


\(^71\) See, for example, *Brown Shoe Co. v. United States* 370 U.S. 294 (1962)(The Supreme Court prevented a merger creating more than 5% market share in several geographic markets. It stated that “[i]f a merger achieving 5 percent control were now approved, we might be required to approve future merger efforts by Brown’s competitors...The oligopoly Congress sought to avoid would then be furthered and it would be difficult to dissolve the combination previously approved.”); *U.S. v. Von’s Grocery Co. et al.* 384 U.S. 270 (1966)(Von’s was the third largest grocery chain in the L.A. area in 1960 when it acquired the sixth ranked chain. The combined firm had only 7.5% of the market and was second to Safeway stores. Despite the low market shares, the court concluded that the merger was illegal. Emphasis was placed on the trend towards fewer owners in single grocery stores in L.A.); *U.S. v. Continental Can Co. et al.*, 378 U.S. 441
presumption of illegality arises. To rebut this presumption, the defendant must produce evidence that the market share statistics provide an inaccurate account of the acquisition’s probable effect on competition in the relevant market. The defendant may rely on non-statistical evidence such as “ease of entry into the market, the trend of the market either towards or away from concentration and the continuation of active price competition.” Additionally, the defendant may demonstrate unique economic circumstances that undermine the predictive value of the government’s statistics. If the defendant successfully rebuts the presumption of illegality, the burden of producing additional evidence of anti-competitive effects shifts to the plaintiff.

The Supreme Court has not spoken on the issue of efficiencies since 1967. Courts, agencies and academics have different interpretations of existing Supreme Court precedents which oscillate between total rejection of efficiency claims to the recognition of their importance as a factor that in some circumstances should be weighed in the determination of the net competitive effects of a proposed merger. As elaborated below in Section 7.5.1 below, the general trend has changed in the past two decades to incorporate a limited efficiency defense. Yet the presumptions of illegality are still based on rigid market concentration assumptions.

The EU Approach-Focus on Dominance
The European Union serves as another interesting example of a large economy which applies, in practice, an absolute value approach. As of 1990, concentrations with a

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(1964)(Merger of two firms, a tin can manufacturer and a glass bottle maker, which held 22 and 3 percent market shares respectively was prohibited); United States v. Aluminum Co. of America et al., 377 U.S. 271 (1964)(Merger between Alcoa and Rome Cable which held 27.8 and 1.6 percent of the aluminum cable market respectively was prohibited).
72 University Health, supra, note 70, at p. 1218.
73 Philadelphia National Bank, supra, note 66, at p. 363; Citizen’s Bank, supra, note 70, at p. 120.
74 Kaiser Aluminum and Chemical Corp. v. FTC 652 F. 2d 1324 (7th Cir., 1981) at p. 1341.
76 Baker Hughes, supra, note 76, at p. 983.
77 The merger regime applies to the EEA, that is EC member states together with Norway, Iceland and Liechtenstein. It includes EC council regulations as well as guidance notices published by the Commission which assist in the interpretation of a number of important issues under the council regulations. Mergers that do not fall under the EC merger control may fall under national competition laws where the concentration affects competition in a distinct market within a member state that does not constitute a substantial part of the common market.
“community dimension” are regulated under the Council Merger Regulation (the “Merger Regulation”). A "concentration" is defined to include acquisitions, mergers, and joint ventures. A concentration has a community dimension if it meets the financial and scope of influence threshold set in the Merger Regulation. The test of legality is whether a concentration is compatible with the common market. A concentration meets this test if it “creates or strengthens a dominant position as a result of which effective competition would be significantly impeded in the common market or a substantial part of it.” The Merger Regulation sets forth criteria for consideration of whether mergers meet this test. The primary considerations involve the market position of the companies concerned and other static criteria such as structural concentration and absolute size parameters. However, account should be taken of other issues such as the development of technical and economic progress and the effect on economic and social cohesion. Industrial policy or other political issues may also play a role, particularly in cases where the full College of Commissioners, rather than just the Commissioner for Competition, is involved in the final decision.

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78 EC Merger Regulation, supra, note 13. Prior to the enactment of the Merger Regulation mergers were mostly regulated under Articles 85 of the Treaty of Rome 1957 (which prohibits agreements which restrict or distort competition).
79 Prior to the adoption of Council Regulation 1310/97 of June 1997 which came into force on March 1st 1998. ("Regulation 1310"), only concentrative joint ventures were regulated under the Merger Regulation. Regulation 1310 expanded the scope of the Merger Regulation to apply also to cooperative joint ventures.
81 The decisive criterion is one of dominance. Dominance was interpreted, in accordance with the case law dealing with the abuse of dominance provision (Article 86 of the Treaty of Rome 1957), as the “ability to act to an appreciable extent independently of its competitors, customers and ultimately its consumers” as linked to the ability to raise prices. Renault/Volvo (Case IV/M.004) [1990] O.J. C281/2; [1991] CMLR 297. This definition has been repeated regularly in subsequent merger cases. However, the Merger Regulation requires that the concentration also “significantly impede effective competition”. This may be interpreted as a two-part test which raises the threshold for intervention. See Commission of European Communities, 21st Report on Competition Policy 362 (1992). See also Whish, supra, note 34, at p. 718. Transactions resulting in market share of less than 25% are unlikely to be deemed to impede effective competition. EC Merger Regulation, supra, note 13, Recital 15.
82 Ibid, Article 2(1).b.
83 Getting the Deal Through, supra, note 14, at p. 30-2. The full College of Commissioners is involved in the merger decision where the Commission decides that the concentration raises serious doubts about market dominance and commences an in-depth second stage investigation to decide whether the concentration is compatible or incompatible with the Merger Regulation.
Efficiency considerations have been interpreted and applied as having little or no effect on the evaluation of mergers.\(^4\) If a merger is found to create or strengthen a dominant position which results in a significant limitation of competition, efficiencies are not a defense.\(^5\) As EU officials clearly stated, ["[t]here is no real legal possibility of justifying an efficiency defense under the Merger Regulation. Efficiencies are assumed for all mergers up to a limit of dominance...Any efficiency issues are considered in the overall assessment to determine whether dominance has been created or strengthened and not to justify or mitigate that dominance in order to clear a concentration that would otherwise be prohibited."\(^6\)](OECD/GD 1996) Some commentators go further to observe that the possibility that a merger might lead to static or dynamic efficiency gains which other non-merging firms are unlikely to achieve is interpreted as \textit{prima facie} evidence that the merger would

\(^4\) See, for example, T.A. Downes and David S. MacDougall, "Significantly Impeding Effective Competition: Substantive Appraisal Under the Merger Regulation" (1994) 19 Eur. L. Rev. 286; Sir Leon Brittan, "The Law and Policy of Merger Control in the EEC", (1990) 15 Eur. L. Rev. 351 ("The technical and economic progress which a merger may bring about will certainly form part of the Commission’s analysis of the reasons for a merger. However, \textit{this does not mean that such progress is a legitimate defense for a merger which creates a dominant position}. In a competitive market, mergers may or may not give rise to technical and economic progress. In a noncompetitive market, even if they do, they will not be allowed. Indeed, in a noncompetitive market one would not expect to see technical and economic progress in the normal sense of those words at all. There may be some technical progress, but the economic progress would be confined to the dominant company itself in the form of monopoly rents." at p. 353); Christopher Jones and F. Enrique Gonzalez-Diaz, \textit{The EEC Merger Regulation}, 193-94 (Colin Overbury ed., 1992); Mark A.A. Warner, "Efficiencies and Merger Review in Canada, the European Community, and the United States: Implications for Convergence and Harmonization" (1994) 26 Vand. J. Transnat’l L. 1059, 1099; J.P. Griffin and L.T. Sharp, "Efficiency Issues in Competition Analysis in Australia, The European Union and the United States" (1996) 64 Antitrust L.J. 649.

\(^5\) For a different interpretation which inserts an efficiency defense through the criterion for technical and economic progress as contained in Article 2(1) of the Merger Regulation see L. Hawkes, "The E.C. Merger Control Regulation: Not an Industrial Policy Instrument: the DeHavilland Decision" (1992) ECLR 34, 37. Such interpretation is however, subject to the requirement that the merger not form an obstacle to competition- leading to the conclusion that economically the role of efficiency criteria in the Merger Regulation is insignificant. A further gateway to the explicit inclusion of efficiencies was suggested to be incorporated in the "significantly impeding competition" prerequisite to merger control. C. Canenbly and A. Weibrecht, "EEC Merger Control: A Preliminary Analysis " (1990) Int’l Buss. L. 104, at p. 106. However, so far the case law has interpreted this clause mainly as an indicator for the embodiment of a dynamic factor in merger control, requiring the establishment of a causal link between the market structure and the deterioration of the competitiveness of the relevant market. P.D. Camesasca, "The Explicit Efficiency Defense in Merger Control: Does it Make a Difference?" (1999) ECLR 14, citing \textit{French Republic and Societe Commerciale des Potasses et de l’Azote and Enterprise Miniere et Chimique v. Commission} (Joint cases C-68/94 and 30/95) March 31, 1998 at s. 124.

\(^6\) Contribution from the Commission of the European Union, "Efficiency Claims in Mergers and Other Horizontal Agreements" (OECD/GD 96/65 Competition Policy Roundtable, 1996).
enable the merging firms to acquire a dominant position incompatible with the common market.\footnote{\textsuperscript{87}}

The following two cases are illustrative of the approach adopted by the Commission with respect to efficiency arguments.\footnote{\textsuperscript{88}} In both cases, although the transactions could have generated significant efficiencies, the proposed mergers were found to create or strengthen a dominant position and thus were prohibited. The \textit{Nordic Satellite} case (NSD)\footnote{\textsuperscript{89}} concerned a proposed joint venture for the distribution of satellite TV to the Nordic area among TeleDanmark, the public Danish telecom operator, Telenor, the public Norwegian telecom operator, and Kinnevik, a Swedish industrial group with a large interest in media and in possession of some of the most popular TV programs in the Nordic countries. The Commission prohibited the merger as its operation would have created a highly vertically integrated structure ranging from program provision via satellite capacity to cable TV networks. Although NSD would undoubtedly have involved significant scale and scope efficiencies, it would also have resulted in the parties achieving or strengthening dominant positions in several markets.


\footnotesize{\textsuperscript{88} There are very few reported EC merger decisions discussing efficiency issues. This is not surprising for a number of reasons. First, the Merger Regulation has been in effect only since 1990. Second, and more significantly, the high qualifying thresholds automatically curtail the number of proposed concentrations subject to substantive analysis. Finally, quantifying potential efficiencies is difficult, and there is also uncertainty as to whether, in any event, demonstrated efficiencies would justify the creation or strengthening of a dominant position. Griffin and Sharp, supra, note 84. For additional cases discussing efficiencies see the \textit{Aerospatiale-Alenia/de Havilland} case (Case No. IV/M.053, 1991 O.J. L 334 42, 4 CMLR M2 (1992)(The case concerned the proposed acquisition by Aerospatiale and Alenia (who had combined their regional aircraft activities into a joint venture ATR) of the de Havilland division of Boeing, and was the first case to indicate the Commission's evaluation of efficiencies. The Commission rejected a claimed efficiency defense raised by the parties on the grounds that the cost savings (of about 0.5% of the turnover of combined operations) were insufficient to contribute to the development of technical and economic progress within the meaning of Article 2(1)b of the Merger Regulation. Furthermore, even if there was such progress, the Commission did not judge that it would be to the consumer's advantage). See also \textit{Accor/Wagon-Lits} Case No. IV/M.126, 1992 O.J. (L 2041) 15 C.M.L.R. M13 (1993)(Claims of improved personnel training and modernization were rejected by the Commission because of (1) insufficient evidence to substantiate the claim, (2) no evidence that any such efficiencies would outweigh the anticompetitive effects of the proposed concentration in any event, and (3) given the high inelasticity of demand for the services at issue, there was no indication that the purported benefits would be passed on for the benefit of consumers).}

\footnotesize{\textsuperscript{89} Case IV/M.490 5 CMLR 258 (1995).}
In *MSG Media Service* the parties claimed (unquantified) efficiency gains from the creation of a joint venture company to handle the technical, business and administrative handling of digital pay TV services. The three parent companies were Bertelsmann and Kirch, both of which are major German media groups and Deutsche Telekom, the monopoly telecommunications provider in Germany. The Commission prohibited the merger stating that even if the operation were to contribute to technical and economic progress, no obstacle must be formed to competition. The efficiency defense was thus subject to the reservation that no obstacle be formed to competition. The Commission went on to say that the hindering of competition in this case made even the achievement of technical and economic progress questionable because of the deterrent effect of the operation to future entrants into the market.

Additional Commission decisions establish that where efficiencies are to be taken into account, they must be substantial and merger-specific with the burden of proof resting on the parties, and the purported benefits must be passed on to consumers.

Some commentators nonetheless argue that the case law can be interpreted as showing that there is ample opportunity for the inclusion of an implicit efficiency defense within the definition of dominance, thereby simply avoiding the necessity for a trade-off analysis. According to this view, efficiencies play an important role in Commission decisions, albeit the fact that the wording of the Merger Regulation legally does not leave scope for taking efficiencies into account once dominance has been determined. However, a careful analysis of the case law used as a basis for establishing this implicit efficiency defense indicates that in all cases dynamic factors of market analysis rightly

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90 Case IV/M.469 O.J. L 364 I (1994)
91 Ibid, at p. 100
92 Interestingly, one of the few mergers that were blocked in 1998 involved some of the same companies: Bertelsmann/Kirsch/Premiere which concerned the German pay-TV market. The proposed merger would have made the merged entity into the only pay-TV broadcasting and marketing platform in Germany. The Commission’s decision is currently under appeal.
93 De Havilland, supra, note 88.
94 Ibid. See also Accor/Wagon Lits, supra, note 88.
96 Camesasca, supra, note 85.
allowed the Commission to conclude that dominance was not present, despite the existence of high market shares. The dynamic aspects of the market analyzed by the Commission, such as barriers to entry and exit, fluctuations of market shares and the pace of technological change and innovation have led the Commission to conclude that the proposed merger would not create or strengthen a dominant position in the relevant markets.\textsuperscript{98} Efficiencies were not an integral implicit or explicit part of the decision unless they were used to rebut or strengthen an assumption of dominance based on other market conditions.

The rigidity of the EU merger regime is nonetheless tempered by several factors. First, the Merger Regulation prohibits "the creation or strengthening of a dominant position" rather than the theoretically lower threshold, adopted by most other jurisdictions, which prohibits "the lessening or strengthening of competition." This is a high threshold which seems to clear mergers with high market shares. This higher threshold is nonetheless mitigated by the relatively low levels of concentration (40-50% market shares, provided that other factors such as entry barriers do not undermine the conclusion)\textsuperscript{99} that are necessary in order to base a finding of dominance, and by the fact that the threshold also includes cases of joint or collective market dominance.\textsuperscript{100} Second, the Merger Regulation applies only to large-scale transactions which have a community dimension.\textsuperscript{101} All other mergers may fall under the jurisdiction of the national competition authorities in the countries which they affect.\textsuperscript{102} This high threshold reduces the effect of the practical absence of an efficiency defense. Recent amendments to the Merger Regulation have, however, extended the scope of regulation to smaller scale

\textsuperscript{98} For example, in ABB/Daimler-Benz, \textit{ibid}, the purported synergies led the Commission to conclude that the merger may well increase competition within the duopoly in the relevant market since both competitors will have the capacity to compete effectively and make independent tenders for manufacture of the relevant product.

\textsuperscript{99} See Chapter 4.1 \textit{supra}.

\textsuperscript{100} \textit{Kali and Salz, supra}, note 58; \textit{Gencor v. Commission T- 102/96} (1999); Case IV/M 1524 \textit{Airtours/First Choice Commission decision} (1999).

\textsuperscript{101} The number of notified cases has arisen steadily in the past nine years from 12 cases in 1990 to 235 cases in 1998. Until 31 of March 1999 70 cases were notified to the commission. See Statistics on European Merger Control, EC DG IV-B "Merger Task Force" published at http://europa.eu.int/comm/dg04/merger/closed/en/mergerstat.htm This number of cases is still very small in comparison to the size and the extensive merger activity which is taking place within the EC in the last few years.

\textsuperscript{102} EC Member states may nonetheless refer a merger decision to the Commission, to be decided under the Merger Regulation provisions. EC Merger Regulation, \textit{supra}, note 13.
mergers with significant cross-border effects and to certain types of cooperative joint ventures. 103 Third, an analysis of the relevant Commission decisions indicates that if significant efficiencies are likely to result from a proposed concentration, the Commission will encourage the parties to explore other solutions and to resubmit proposals that do not result in the creation or strengthening of a dominant position. 104

The EU merger regime should be understood in light of the basic philosophy on which the Treaty of Rome is based, namely that maintaining effective competition in the EU is a decisive goal. If dominance already exists in the market, that is competition is already fragile, the aim is to preserve at least some degree of remaining competition. Therefore, an increase in or the creation of market dominance as a result of which effective competition would be significantly impeded would not be tolerable, even if efficiency gains could be demonstrated. 105

C. Similar Approaches Adopted by Additional Jurisdictions

The Italian Competition and Fair Trading Act 1990 106 also does not recognize an efficiency defense. Any efficiency considerations form part of the assessment of the merger only to the extent they may be used to assess the impact of a merger on competition, but they can never be deemed sufficient to authorize a merger that would otherwise be prohibited. 107 These legislative intentions are clearly apparent from the deliberate exclusion of efficiencies from the list of factors to be considered when assessing the effects of a merger on competition. 108 Similarly, the German Merger Control Regulation 1974, does not provide for an efficiency defense. Mergers that fall short of the threshold of creating or strengthening a dominant position are presumed to

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103 Regulation 1310, supra, note 79.
104 Griffin and Sharp, supra, note 84.
105 EC Merger Regulation, supra, note 13, Article 2(2); Contribution from the Commission, supra, note 86.
106 Act No. 287/90.
107 Contribution from Italy, in OECD Roundtable, supra, note 86.
108 Section 6 of the Italian Competition and Fair Trading Act. The “competitive position of the national industry” criterion which might have made it possible to consider some possible technological weakness of the Italian industry has been interpreted by the courts as implying some dynamic considerations on the possible evolution of competition, beyond mere efficiency. Contributions from Italy, ibid.
achieve efficiencies, but once a merger is presumed to cross this threshold, efficiencies cannot offset anti-competitive effects.\textsuperscript{109}

Japan has also adopted an absolute value approach. The Japanese \textit{Anti-Monopoly Act 1947} prohibits mergers, acquisitions of business, and stockholdings when such activities would substantially restrain competition in any particular field of trade.\textsuperscript{110} The Act does not explicitly address efficiencies. Administrative guidelines for merger control\textsuperscript{111} provide for consideration of efficiencies as a relevant factor only in cases in which improvements in efficiency can affect the competitive situation in a market by stimulating business activities in a way that promotes competition. For example, where a small company, through a merger, is able to improve its cost competitiveness and is better able to compete with large firms, such a merger will be permitted. Efficiencies will also be taken into account, although as an aggravating factor, if they will increase market power and restrict competition. This approach is based on the ultimate goal of Japanese merger control, which is to maximize allocative efficiency.\textsuperscript{112}

Australia’s post-merger review also adopts an absolute value approach which does not incorporate efficiency considerations. Section 50 of the \textit{Trade Practices Act 1974}, as amended,\textsuperscript{113} prohibits any merger that has the effect, or is likely to have the effect, of "substantially lessening competition."\textsuperscript{114} In determining whether this threshold

\textsuperscript{109} There is one exception to this rule. Pursuant to the so-called German "Minister's authorization" provision, a Minister may approve a merger that has been denied by the competition authority if the anti-competitive effects are outweighed by advantages to the entire economy or it is justified by a predominant public interest. Relevant consideration may include economic efficiencies. However, until 1996 only 15 applications for this authorization have been made, and of these only six have been granted in whole or in part. Notes of discussion, OECD Roundtable, supra, note 86.

\textsuperscript{110} Japanese \textit{Anti-Monopoly Act 1947}.

\textsuperscript{111} \textit{Administrative Procedure Standards for Examining Mergers} (Japanese Fair Trade Commission, July 1980, amended August 1995).

\textsuperscript{112} Contributions from Japan, in OECD Roundtable, supra, note 86. ("If the merged firm becomes dominant in the market, it can increase market power through its increased efficiency, causing the market to become more restricted, and this natural results is a less efficient resource allocation...From such standpoint one would wonder if it is proper to consider "efficiency" as a defense in a merger case.")

\textsuperscript{113} \textit{Trade Practices Legislation Amendment Act} (1992 Austl. C. Acts)(effective Jan. 21, 1993). Section 50A is an analogous provision regulating certain offshore acquisitions. The previous test focused on dominance. Under such test, only a sub-set of mergers which are likely to lessen competition substantially were prohibited. A simple example would be where, in an industry with four players which have 25% market share each, a set of mergers occurred following which two 50% players remained. There would be no dominance, however competition could be reduced if there were high entry barriers, by coordinated pricing and conduct.

\textsuperscript{114} Where there is a reasonable likelihood that prices in the relevant market will be maintained at a significantly greater level than they would be in the absence of the merger, or where competitive outcomes
has been violated, the Act provides a non-exhaustive list of factors that courts must take into consideration, which do not include efficiency considerations. Some commentators argue that although offsetting public benefit considerations do not expressly form part of the courts' analysis of anti-competitive conduct under the Act, it is at least arguable that such considerations form part of the analysis by virtue of the non-exhaustive list of criteria. Given the relative newness of this test and the strong economic focus in Australia, efficiency arguments could foreseeably be made in appropriate cases to support a finding of no substantial lessening of competition and, hence, no breach of the Act. Nonetheless, the Australian Merger Guidelines reject this interpretation, by clearly stating that efficiencies are relevant only to the extent that they impact on the level of competition in the market.

The Australian provision should, however, be read in light of the pre-merger authorization procedure conducted by the Australian Competition and Consumer Commission ("ACCC") which balances between public benefit considerations, interpreted to include efficiencies, and the risks of anti-competitive conduct arising from the merger. A merger is evaluated under Section 50 of the Act only if the merging parties fail to notify the ACCC of the proposed merger. It can thus be seen as a penalty which parties incur for failing to comply with the law. A similar approach has been adopted by New Zealand.

The absolute value approach thus integrates efficiencies into the analysis of the effects of the proposed merger on competition, rather than considering efficiencies as a trade-off, or a defense, to anti-competitive effects. Any effect flowing from efficiencies is taken into account to the extent that it influences the abilities and incentives of firms to compete in the relevant market. If a merger that may create or strengthen a dominant position may achieve efficiencies that may further strengthen its position in the market, the merger will be prohibited even if it increases consumer or total welfare. An exception would otherwise be distorted, the Commission will consider there to be a substantial lessening of competition. Australian Merger Guidelines, supra, note 47, 5.18.

Section 50(3) of the Australian Trade Practices Act 1974.
Griffin and Sharp, supra, note 84.
Australian Merger Guidelines, supra, note 47, Sec. 5.19.
See Section 7.5.1 below for an elaboration.
Section 46 of the New Zealand Commerce Act 1986.
arises, under the lessening of competition standard, where efficiencies create incentives to new or existing competitors for increased competition. For example, where increased efficiencies act as an enhanced competitive constraint on the unilateral conduct of other firms in the market and thus undermine the conditions for collusive conduct and, hence, to increased competition, they will be relevant to the analysis.

To give a hypothetical example, suppose that four firms, each with a production capacity of 10,000 units and a market share of 25% that produce a homogenous product operate in a market. Further assume that minimum production costs can be achieved at capacity levels of 18,000 units. A proposed merger between two of the firms operating in the market will most likely meet the standards of creating dominance or lessening competition. Although the merger achieves productive and, possibly allocative efficiency, it will most likely be prohibited under the absolute value approach. The proposed efficiencies will, most likely, serve to indicate that the merger will strengthen market power, since it will create a strong dominant position of the merging parties based not only on their combined market shares, but also on their strong comparative advantage compared to their rivals. It may also be feared that such a merger will create a trend of further concentration in the market since the two remaining firms will seek to merge in order to compete effectively with the newly merged entity. This will eventually lead to a duopolistic structure that is more likely to engage in collusive conduct, albeit with reduced costs and increased efficiency. The decision may change if a dominant firm that can produce 18,000 units already operates in the market. In such a case, the merging of two potential competitors may well be a necessary condition in order to compete effectively in the market and increase competition. In such a case, efficiency and competitiveness considerations may lead to the same outcome.

7.4.2 Analysis of Substantive Criteria under the Absolute Value Approach

Having surveyed the absolute value approach adopted by some jurisdictions, we now turn to the analysis of the substantive criteria used under the two-stage analysis of the absolute value approach, which also serve as the basis for the balancing approach surveyed below. The analysis emphasizes the applicability of different criteria to small economies.
A. Stage One: Defining the market

The first step in any merger analysis, once it is determined that the transaction in question constitutes a merger, is to define the relevant product and geographic market. Market definition serves to identify and establish the competitive constraints that the merging entities face from actual and potential competitors. A systematic and economically-based analysis of market boundaries is of crucial importance since it will often have a decisive influence on the assessment of a specific case. Accordingly, many jurisdictions adopt guidelines that lay down economic principles and methods governing the definition of the relevant market which should prevent the competition authorities from adopting an intuitive approach guided by the nature of the inquiry.

Market definition is informed by two main factors, namely demand substitutability and supply substitutability (both in the short and in the long run). Demand substitution focuses on the ability of customers to switch easily to other products in order to satisfy a particular need. Supply substitutability serves to identify producers and product quantities that exist in the market or would potentially enter the market in response to a price increase and constrain the market power of an incumbent producer.

Market definition often involves a complex analysis of market conditions, given that demand and supply substitutability cannot be easily ascertained from existing market conditions. The methodological tool used to analyze demand and supply substitution in many jurisdictions for the purposes of merger analysis is the so called SSNIP (Small but Significant and Non-transitory Increase in Price) test developed in the US Horizontal Merger Guidelines (also known as the hypothetical monopolist test). Under this test, the relevant geographic and product market is defined as "a product or group of products and a geographical area in which it is sold such that a hypothetical, profit maximizing firm, not subject to price regulation, that was the only present and future seller in those products in the area could impose a small but significant and non-transitory increase in price."
price above prevailing or likely future levels.” 122 Thus, suppliers of other goods will be regarded as participating in the relevant market if consumers would switch to their products in response to a small but non-transitory change in the relative price of the goods concerned. Similarly, where a small but significant and non-transitory price increase will induce firms not currently operating in the market to switch or add production or marketing to compete in the relevant market, the value and the volume of the products these suppliers would be able to produce and market if they switched or added production is added to the relevant market. 123 This definition provides a conceptually coherent framework for merger analysis. It dictates, albeit arbitrarily, a single standard concerning the degree of cross elasticity required to include or exclude a product from the relevant market and is useful and valid in any sized jurisdiction. Nevertheless, in a small economy it is much more important to recognize that relevant markets may be defined as extending beyond domestic borders in appropriate cases. 124

B. Stage Two: Modeling competition

The next step once the relevant market has been defined is to analytically connect changes in market structure and market conditions that will likely result from the merger to market performance in order to determine the effects of these factors on competition. A change in competitive conditions is significant if it is great enough to substitute

122 U.S. Merger Guidelines, supra, note 121.
123 The U.S. Merger Guidelines, ibid, provide that firms which do not currently produce or sell the relevant product are nevertheless included in the relevant market where these firms would start producing the products in the relevant market “within one year and without the expenditure of significant sunk costs of entry or exit, in response to a ‘small but significant and non-transitory’ price increase”. If market entry appears possible but does not satisfy these conditions, the effects of such supply responses will be considered in the assessment of barriers to entry. The EC notice, supra, note 120, para. 20 states that in such a case, the products currently produced or sold by these suppliers should be included in the relevant market and their value be added up to estimate the total size of the market. As Art and Liedekerke observe, this is incorrect. When looking at supply-side responses what should be taken into consideration in order to calculate the total market size is the value and the volume of the relevant products these suppliers would be able to produce and market if they switched or added production to such relevant products. Jean-Yves Art and Dirk Van Liedekerke, “Developments in EC Competition Law in 1997: An Overview” (1998) 35 CMLR 1135.
124 See discussion in Chapter 4.1 supra. Many small economies have recognized this need. See, for example, the Canadian case of Director v. Hillsdown Holdings (Canada) Ltd [1992] 41 C.P.R. 3d 289; The Israeli Director’s decision in Cvalim and Cvalei Zion (not published). The EC has also recognized this possibility in Aerospatiale- Alenia/De Havilland, supra, note 88, at sec. 20.
anonymous competition for competition with identified rivals or to create the possibility of an impairment to competition.125

Modelling the effects of concentration on competition is not an easy task. While there is a general agreement that high levels of market concentration are more conducive to anti-competitive conduct than low levels of industrial concentration, there is an ongoing debate as to what specific market conditions are necessary in order to facilitate monopolistic or oligopolistic conduct. This Section surveys some of the methodologies that have been adopted in order to model changes in market structure which might affect competition substantially.

Static market structure parameters, surveyed in sections 1 and 2 infra, are often used as a screening device in order to identify those mergers that are unlikely to raise competitive concerns. Where mergers exceed structural legal thresholds, several non-structural factors are used as mitigating or aggravating circumstances on a case-by-case basis that strengthen or weaken a presumption based on market structure elements. Non-structural considerations are surveyed in Section 3 infra. The legal weight attached to structural considerations is analyzed in Section 4 infra. Sections 5 and 6 focus on special anti-competitive concerns raised by conglomerate and vertical mergers, respectively.

1. Market Structure Parameters
As noted above, the degree of concentration in a market is a significant condition pertinent to a diagnosis of the patterns of behavior of an industry. Economists generally agree that there is a positive relationship between the size, size distribution and the number of effective competitors in a market and the likelihood of the exercise of market power. High concentration levels may facilitate the exercise of unilateral market power. Alternatively, structural concentration factors have been shown to positively affect the incentives and ability of firms to engage in coordinated conduct, including overt and tacit collusion.

Moreover, pre-merger market shares may serve as a good measure of the benefit from a merger. For example, in oligopolistic homogenous products markets, the Cournot model demonstrates that firms with the lowest marginal costs gain the highest market

125 Hovenkamp, supra, note 63.
shares. Mergers among firms with high market shares leave firms with relatively small market shares, and by implication high marginal costs, as competitors. Since such rivals are less able to discipline post-merger price increases, a merger among firms with high pre-merger shares will be more able to exercise market power than a merger among low-share firms, all else equal.\textsuperscript{126} Interpreting market shares when firms in a market produce differentiated products is less straightforward. In these types of markets, estimates of the substitutability of the products of the merging firms for each other relative to the substitutability of the products of competing firms with the products of the merging firms can be much more informative than a simple market share indicator.\textsuperscript{127}

In addition, to the extent market concentration indicators serve as a good measure of preexisting market power, large market shares alleviate the concerns about increases in market power. Economic theory demonstrates that reducing output slightly below competitive levels has a fairly small effect on total economic welfare, but that reducing output when markets are already uncompetitive can be much more costly.\textsuperscript{128} Moreover, preexisting market power indicates that conditions are good enough to support noncooperative outcomes.

The positive relationship between market performance and market concentration has led to the use of concentration levels as an indicator of the likely competitive effects of a merger. Therefore, careful attention is given to the initial level of concentration and the predicted change in concentration due to the merger. Another important structural consideration is the dispersion of sizes of firms operating within the relevant market. For example, if the feared threat is price fixing, variations in firm size can make cartel bargains more difficult to reach and enforce. There would be more disagreement about

\textsuperscript{126} Baziliaskas and Ross, \textit{supra}, note 22.
\textsuperscript{128} Baziliaskas and Ross, \textit{supra}, note 22. They explain that the intuition behind this result is as follows. The larger the difference between price and marginal cost, the more costly to society is each additional unit bought. In competitive markets, the price is very close to marginal cost, such that the social cost is very low. In noncompetitive markets price exceeds marginal cost and there is a social cost for every additional unit withdrawn.
the profit-maximizing price, because firms with different cost structures compute different profit-maximizing process and outputs.¹²⁹

This section provides a brief comparative analysis of safe harbors and concentration threshold adopted by different jurisdictions. In analyzing such concentration indicators, one should take account of several differentiating factors, including the regulatory objectives of merger analysis, the test adopted for illegality and the evidentiary weight placed on concentration indicators. The first two factors were analyzed above. The latter factor is analyzed in section 4 below.

Market Share Indicators
Almost all jurisdictions adopt market share safe harbors below which mergers are unlikely to be challenged given the low levels of concentrations in the post-merger situation. Since market shares are often more readily available than other information, they are a relatively low cost means of screening many mergers that are not likely to meet a legal standard for prohibition of a merger. Such safe harbors are usually contained in merger enforcement guidelines, but can also be found in some legislation. Below we provide examples of some illegality thresholds by increasing market share requirement.

Until the 1980’s U.S. courts and enforcement agencies employed a concentration ratio based on the combined market shares of the four largest firms operating in the relevant market (CR4). Under the original Merger Guidelines issued by the antitrust authorities in 1968,¹³⁰ a merger of two firms with 4% each or more operating in a market with a post-merger four-firm concentration of 75% was presumptively illegal. If the market was less concentrated, mergers involving firms of 5% each were presumptively illegal. These guidelines were substantially more tolerant than Supreme Court case law, which had condemned mergers in unconcentrated markets of firms whose combined post-merger market share was less than 8%.¹³¹ Hovenkamp suggests that more recently a vague consensus has emerged that a market in which the CR4 is less than 40% is a safe

¹²⁹ Hovenkamp, supra, note 63, at p. 458.
¹³¹ Hovenkamp, supra, note 63, at p. 457 citing to Von’s Grocery Co., supra, note 71; U.S. v. Pabst Brewing Co. 384 U.S. 546, 86 S. Ct 1665 (1966) on remand 296 F. Supp. 994 (E.D. Wis. 1969)(The Supreme Court condemned a merger in which the firms’ combined market share was only 4.5% and the four-firm concentration ratio was 30%).
harbor. Also, if the CR4 is 75% or higher, a merger in which the combined market share of the post-merger firm exceeded 12% would be illegal.\textsuperscript{132}

The EU Merger Regulation, which prohibits mergers that would create or strengthen a dominant position as a result of which effective competition would be significantly impeded, contains a general presumption that transactions producing a combined market share of less than 25% are compatible with the common market.\textsuperscript{133} In practice, mergers would normally not be condemned unless the merged entity has a market share higher than 40%. Exceptions to this rule arise where entry barriers into the market are high.

The Canadian Merger Enforcement Guidelines issued by the competition authority indicate safe harbors below which enforcement action is unlikely.\textsuperscript{134} The Director will not challenge a merger on the basis that the merging party will be able to exercise unilateral market power where the post-merger market share of the merged entity is likely to be less than 35%. It will generally not challenge a merger on the basis of interdependent exercise of market power where the post-merger share of the market accounted for by the four largest firms in the market would be less than 65% or the post-merger market share of the merged entity would be less than 10%.

The Australian guidelines employ a threshold for market share for unilateral market power of 40%. A twofold test is employed for collusion-enhancing transactions: a merger will not be challenged if either the post-merger market share of the merged entity is below 15% or the four-firm concentration ratio is below 75%. The Australian Commission is currently investigating the suggestion of the Industry Commission to raise the threshold market share for unilateral market power from the present 40 to 50% for the merged firm and the threshold for collusive market power from the existing 4 firm concentration ratio of over 75% to a three firm concentration ratio of 75% with the maximum market share of the merged firm raised from 15 to 20%\textsuperscript{135}

\textsuperscript{132} Hovenkamp, \textit{ibid}, at p. 457. For a table of cases indicating the market shares of the firm, the market structure and the decision see P. Areeda & D. Turner, \textit{Antitrust Law: An Analysis of Antitrust Principles and Their Application} (Boston, Little Brown, 1980) Sec. 909b.

\textsuperscript{133} EC Merger Regulation, \textit{supra}, note 13.

\textsuperscript{134} Canadian Merger Guidelines, \textit{supra}, note 121.

\textsuperscript{135} Australian Merger Guidelines, \textit{supra}, note 47.
In New Zealand, given that most markets comprise a relatively limited number of market participants, the Commission does not generally challenge a proposed merger where the merged entity will have less than 40% share in the relevant market or less than 60% where it faces competition from at least one other market participant having not less than a 15% market share.\textsuperscript{136}

The Israeli \textit{Restrictive Trade Practices Act} incorporates a threefold threshold test. Two of the thresholds are based on market share indicators, and provide that a merger will not be challenged unless one of the merging entities has a market share exceeding 50%, or the merging entity’s post-merger market share will exceed 50%.\textsuperscript{137}

It can be easily be seen that the size of the economy is negatively correlated to the height of the safe harbors or legal thresholds it employs. This phenomena is analyzed in Section 4 below.

\textbf{The Hirshman-Hirfendahl Index}

The Hirshman-Hirfendahl Index ("HHI index") is the methodological tool employed by the current U.S. Merger Guidelines in order to measure concentration and screen mergers. This static index indicates the level of concentration in the market based on both the number of firms operating in the market and their relative market shares. It is calculated by adding up the sums of the square of the market shares of the firms in the market.\textsuperscript{138} For example, a market with two equally sized firms, each with 50% market share, would have an HHI of 5000. Although concentration levels are under current policy only a \textit{prima facie} indicator of the anti-competitive effects of a merger which can be rebutted by non-market share considerations, this concentration index is nonetheless important as setting the stage for merger review since it creates a presumption of illegality.

Section 1.51 of the current Merger Guidelines distinguishes among three categories of mergers in accordance to the initial market concentration levels:

\textsuperscript{136} New Zealand Commerce Commission Guidelines, \textit{supra}, note 49.

\textsuperscript{137} Article 17 of the Israeli \textit{Restrictive Trade Practices Law 1988}.

\textsuperscript{138} Mathematically, it can be decomposed into a "number of firms" component and a "dispersion of shares" component: \textit{HHI} = \textit{lN} + \textit{v} \times \textit{v} / \textit{N} where \textit{N} is the number of firms in the market and \textit{v} is a coefficient of variation in firm size. The higher the HHI, the lower the number of firms and the greater the dispersion of market shares. To create accurate results, the index should include also potential competitors.
1) Non-concentrated markets: Post-merger HHI of below 1000;

2) Moderately concentrated markets: Post-merger HHI between 1000 and 1800. An increase of more than 100 of the HHI potentially raises significant competitive concerns, depending on non-market-share factors; For example, a market shared equally by eight firms would have an HHI of 1250. If two firms merged, the HHI would increase by 312.5 and would probably be challenged.

3) Highly concentrated markets: Post-merger HHI of 1,800 or more. Mergers that increase the HHI between 50 and 100 points potentially raise significant competitive concerns, depending on non-market share factors. The strictest scrutiny will apply to any such merger that increases the HHI by more than 100 points. In such cases it is presumed that the merger is likely to create or enhance market power or facilitate its exercise. For example, a market shared equally by five firms would have an HHI of 2000. If two firms merged, the index would increase by 800 and the merger would be challenged.

This choice of index is based on generalized predictions of gains from size as well as behavioral assumptions of the market, specifically oligopolistic coordination. The chosen HHI high threshold (1800) is met with market shares of five equal firms. It is presumed that, absent clear showings to the contrary, in such markets firms have already exhausted scale and scope economies and thus the cost savings from the merger will be very low. Thus, such mergers are presumed to have a dominating anti-competitive effect.

The HHI has generated much criticism. For one, it does not capture the effects of the size distribution of firms in facilitating anti-competitive conduct. Any amount in variation increases the HHI. That it, for any given number of firms, the HHI is minimized when all firms are exactly equal. This prediction is not consistent with the notion that collusion is most likely to succeed when all the firms are approximately of the same size. Similarly, where firms cannot be assumed to be equally efficient (heterogenous cost structure) a greater dispersion of market shares may signal more rather than less competitive pressure and hence less concern for damage to consumers from the merger.

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140 Hovenkamp, supra, note 63, at p. 458-9.
Also, it has to be adjusted in order to fit different market settings. To use one example, some markets clear by way of an “open English auction” mechanism or through a less formal but functionally similar process whereby prices continue to be revised until only one party is left on the other side. The supplier with the lowest marginal cost wins the bid and is paid a price just above the marginal cost of the next lowest cost supplier. In the absence of collusion, prices will be affected by a merger only if the merging parties are the sellers with the two lowest marginal costs. Such a merger will increase prices paid by buyers since the lowest cost supplier will still win the contract but will now need to be paid an amount just below the cost of what had been the third highest cost supplier.\footnote{Boulton, \textit{ supra}, note 41, at p. 350.}

Apart from these general criticisms that apply in any sized jurisdictions, the small size of a market and the resulting need to enable firms to grow to relative large sizes in order to realize scale economies require the rejection of the U.S. concentration threshold in small economies. The HHI strict scrutiny category applies, for example, where six businesses, four holding approximately 20% market shares and two holding approximately 10% each. A merger of the two smaller firms, such that only five firms will remain in the market, will increase the HHI to 2000 points. Objection to such a merger will not comply with the special economic conditions of a small market. In small markets, especially where fixed costs and scale economies are substantial, it is not uncommon for firms to possess such market shares. Accordingly, many if not most proposed mergers would cross this threshold, which presumes anti-competitive effects, although they will not always enhance or create market power or facilitate its exercise, and most firms would be prevented from realizing scale economies.

Courts and agencies in small economies have thus rightly rejected the U.S. HHI levels as based on presumptions of market performance which lack sensitivity to the special characteristics of small markets.\footnote{For Canada see, for example, \textit{Hillsdown, supra}, note 124.} The Israeli \textit{Tnuva} case\footnote{Appeal 2/94 \textit{Tnuva v. Director of Trade Restrictions} in Tova Olshtein (ed.) \textit{Hegbelim Iskiim} (Tel Aviv: Vaad Mehoz Tel-Aviv-Yafo, 1994), Vol. B, p. 159.} is an illustrative example. There, the Israeli Competition Tribunal explicitly rejected the U.S. HHI test as well as the CR4 thresholds as an indicator of the lessening of competition in the market, given the small size of the Israeli market. The Tribunal stated that the choice of threshold
HHI levels and deltas is not a universal one, but rather an attempt to create thresholds that would apply to the U.S. market. In the U.S., which is a large economy, the threshold of severe scrutiny is met in a market structure of five equivalent firms. This threshold is based on the presumption that firms have already exhausted scale and scope economies in such a market, and thus the cost savings from the merger will be very low. In a small market the number of firms should be lower, or otherwise firms would not be able to achieve scale economies.  

2. Turnover Rates
Several jurisdictions employ turnover rates as thresholds for challenging a merger. European merger policy is specifically structured to review those concentrations which have a strong community dimension and a large effect on the EU market. Accordingly, a concentration will be caught by the Merger Regulation based on aggregate worldwide turnover. Since March 1998, in an attempt to reduce the need for businesses to make multiple applications for clearance at the EU national level, the Merger Regulations applies to smaller concentrations that have a significant impact in at least three member states. The test is a complex one and includes the aggregate world-wide turnover of the parties, and the community-wide turnover. Turnover is deemed to be the amount derived from the sale of products or the provision of services (excluding turnover taxes) in the preceding financial year. In addition, there are rules for specific sectors, in particular banks and financial institutions and insurance undertakings. Other jurisdictions, including Belgium and Israel, have also adopted turnover thresholds. Turnover thresholds may signify the dominance of firms, although in a very imprecise manner.

144 Zdaka et al. Show that for similar economic surplus, a merger in the U.S. market that increases the HHI from 1700 to 2000 (i.e. reduction from 6 equivalent sized firms to five such firms) is similar to a merger that increases the HHI from 3,300 to 5,000 (from 3 equivalent-sized firms to two) in the Israeli market if the cost reduction is 0.5% only, when we assume that the profit was previously set at 5%. They then recommend the adoption of an HHI index threshold of 5000 in Israel. A. Zdaka et al., “Monopolies and Mergers in Exposure conditions” (1992) 152 Israeli Economic Quarterly 53, at p. 66.
145 Regulation 1310/97, supra, note 79.
146 Getting the Deal Through, supra, note 14, at p. 30.
147 The Belgian Law on the Protection of Economic Competition 1991, for example, employs a threshold based on worldwide aggregate turnover exceeding BFr 3 billion (approximately US $95 million in 1997 rates) and a market share of more than 25% of the relevant Belgian market. The Israeli RTPL also uses aggregate turnover rates the equivalent of approximately U.S. $6 million as one of the thresholds for challenging a merger.
3. Non-structural considerations

Reliance on market structure alone as an indicator for anti-competitive conduct is problematic, as high concentration levels are a significant but non-conclusive factor for the exercise of market power, whether through unilateral dominance or through oligopolistic coordination. Even at very high levels of concentration it is not certain that competition must be impaired, even though its nature may have been changed. In some situations increased levels of concentration may even facilitate competitive conduct. Consider, for example, the case where a merger creates a second large firm more able to compete with the existing dominant incumbent, or a situation where a maverick firm has sufficient capacity in the post-merger situation to restrain a dominant firm or to restrict collusive conduct. On the other hand, small increases in concentration levels may restrain competition. This is the case where a small increase in concentration involves the removal of a market participant who has played a significant role in maintaining a competitive market by undermining attempts to coordinate market conduct. Dynamic factors thus play an important role in predicting the likely effects of changes in market structure that may result from a merger.

Accordingly, all merger control regimes refine their preliminary analysis of the possible anti-competitive effects of a merger which are based on structural factors by considering a variety of non-structural factors that have a bearing on the competitive restraints placed upon firms operating in the market. These factors may include, for example, excess capacity, sophistication of buyers, suppliers or others in a position to discipline market players, entry barriers, the competitive nature of the merging firms, changing market demand or supply of inputs, and sources of potential competition that were not taken into account in the preliminary analysis. The complexities of such multi-factorial economic analysis required for assessing the risks of a merger, have led most jurisdictions to acknowledge the need for a sectoral or a case-by-case approach.

Section 50(3) of the Australian Trade Practices Act 1974, for example, contains a non-exhaustive list of factors to be taken into account when evaluating a merger. These include, beyond market concentration, import competition, barriers to entry, countervailing power of monopsonic buyers, the elimination of a vigorous and effective
competitor, vertical integration, and the dynamic characteristics of the market. The ACCC has conveniently organized these statutory factors into a five-stage evaluation process, which requires the collection and analysis of increasingly complex data. At each stage, safe harbors indicate mergers which are unlikely to be of concern. The first stage involves defining the relevant market; the second considers market concentration; the third stage analyzes the level and nature of import competition, and whether imports provide or are likely to provide a competitive discipline on the merged firm which is greater than would be indicated by the market structure; the fourth stage analyzes the height of barriers to entry, focusing on whether it is likely that new entrants will establish themselves in the market on a sufficient scale within a reasonable period of time to inhibit the exercise of market power by the merging firm; in the fifth stage "all other factors" bearing on competition are analyzed. For example, in collusion-enhancing situations the ACCC may examine market transparency as well as transaction value and frequency. A similar list of non-structural factors can be found in the legislation of other jurisdictions\textsuperscript{148} or in the merger enforcement guidelines of competition authorities.\textsuperscript{149}

Dynamic considerations play a more important role in small economies than in large ones in distinguishing changes in market structure that are likely to create anti-competitive effects from those which do not. Given that most markets will cross illegality thresholds based on market structure considerations alone, factors which seek to identify the dynamic factors that will affect the ability of firms to exercise unilateral market power or to facilitate collusion in concentrated markets on the basis of models which take into account the ability and incentives to cooperate and the ability to punish deviation are crucial to a correct analysis of the effects of a proposed merger.

The importance of non-structural factors in assessing the anti-competitive effects of a merger can be illustrated by two cases, the Canadian \textit{Hillsdown} decision\textsuperscript{150} and the

\textsuperscript{148} See, for example, Section 93 of the Canadian \textit{Competition Act 1986}; EC Merger Regulation, \textit{supra}, note 13, Article 2(1).

\textsuperscript{149} See, for example, the U.S. Merger Guidelines, \textit{supra}, note 121; Canadian Merger Guidelines, \textit{supra}, note 121.

\textsuperscript{150} \textit{Hillsdown}, \textit{supra}, note 124.
EU Kali & Salz decision. In Hillsdown the Canadian Tribunal did not find that the merger of two rendering operations substantially lessened competition despite a change in the HHI from 1594 to 3608 and the merging parties having in excess of 56% of the post-merger productive capacity to render red-meat material (66% if one potential U.S. competitor was excluded from the relevant market). Notwithstanding high concentration levels, the Tribunal found that market demand was declining and that competitors of the merged entity could either shift production among facilities to free up capacity or could easily expand capacity to serve the relevant market. It should be noted that while it is true that excess capacity will provide a degree of competitive pressure on the merged firm and restrain its ability to raise prices, it may still be the case that mergers in such markets will increase equilibrium prices in the market. In a Cournot model, where firms adjust their outputs in response to changes in market conditions in oligopolistic industries, a reduction in quantity by the merged firm is met by an increase in quantity by competing firms but the net quantity effect may well be negative, even if excess capacity is significant.

The shortcomings of an analysis of oligopolistic conduct based on the collective market shares of market participants was recently acknowledged by the European Court of Justice in its Kali & Salz decision. The Court rejected the Commission’s conclusion that the proposed merger would likely create a dominant position which was based primarily on a static analysis of structural market characteristics, without seeking to evaluate their significance in light of firm-specific and industry-specific factors and their effect on the interdependence of oligopolists. The case involved the proposed merger of two suppliers of potash. The Commission found that, as a result of the merger, the

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152 Hillsdown, supra, note 124.
153 In Director of Investigation and Research v. Imperial Oil et al. (CT-89/3, #390, January 26, 1990) the Tribunal emphasized in its decision to approve a consent order the ability of firms to monitor each others’ prices, excess capacity and the lack of import options, in addition to pure structural factors, as creating concerns for interdependent behavior. In a recent case the Canadian Competition Bureau cited the loss of a vigorous and effective competitor as one of the reasons a proposed joint venture, analyzed under the merger provisions, created concerns for the exercise of market power. See Competition Bureau News Release, “Petro-Canada and Ultramar have Decided to Discontinue their Joint Venture” (June 23, 1998).
154 Baziliauskas and Ross, supra, note 22.
155 Kali and Salz, supra, note 58.
merged entity and a French producer would hold a joint dominant position in the relevant market. In support of its conclusion the Commission focused mainly on the increase in market share and the degree of concentration. The combined market share of the merged entity and the French producer would increase to about 60% and was likely to increase further. It further found that supply of rival firms is very fragmented as domestic and foreign producers have very low market shares and limited capacity that would prevent, at least in the short run, an increase in their market shares. The Commission also pointed to other factors facilitating collusion, such as the transparency of the market, the homogenous character of the relevant product, the absence of technical innovation and prior infringements of the Treaty of Rome 1957 by the merging parties.

The ECJ annulled the Commission’s decision on the basis that it was based on static factors and failed to take account of the dynamic factors inherent in the market that would make it difficult to facilitate oligopolistic coordination. Specifically, it concluded that the Commission failed to demonstrate to a sufficient legal standard that the merging firms will create joint dominance because of the existence of significant asymmetries between the parties that may decrease the likelihood of collusion or conscious parallelism by giving rise to conflicting interests. In the case at hand the oligopolistic parties’ differed significantly with regard to market shares (23% and 37%), production capacity (60% and 20%) and levels of capacity utilization and reserves. These factors, coupled with the fact that the market was in decline, meant that the static elements relied on by the Commission in its decision did not support a conclusive finding of joint dominance. While the Court did not provide a detailed analysis of why these factors would militate against collusion, it concluded that the Commission cannot simply rely on a checklist

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157 It is generally accepted by economists that the existence of significant asymmetries will decrease the likelihood of collusion or conscious parallelism since asymmetries are likely to give rise to conflicting interests. See, for example, Scherer and Ross, supra, note 23, at p. 276.
158 Given the above circumstances, the French producer with a large market share, limited reserves, and small production capacity could very well have incentives to collude although it might lack the ability to discipline a party with larger reserves and unutilized capacity. On the other hand, the merged entity would have substantial capacity and a smaller market share and therefore may be tempted, at least in the short term, to increase its market share at the expense of the French producer. This temptation may be strengthened by the knowledge that the French firm will not be able to retaliate by taking market share away from the merged entity and by the effects that an aggressive policy could have on third party competitors whose tendency to lower price in order to gain market shares in a declining market might be disciplined by an aggressive pricing strategy on the part of the merged entity. This analysis suggests that,
of descriptive factors that indicate the theoretical risk of a merger or on the fact that market shares exceed a certain threshold. Rather, it must rigorously analyze these factors in the dynamic context of the relevant economic facts of each specific case. Having failed to do so, the Commission’s decision was annulled.

4. Evidentiary weight attached to concentration levels
An important factor in the analysis of the effect of dynamic factors on competition involves the evidentiary weight given to structural considerations. Jurisdictions differ significantly in this regard. At one end of the spectrum lies the U.S. policy that was prominent until the 1980’s. U.S. merger analysis was primarily driven by market-share-based presumptions of illegality. As noted above, U.S. courts have adopted the so-called “prima facie evidence rule” that implies that the government or the private plaintiff makes a prima facie case of illegality by proving high concentration; the defendant then has the burden of rebuttal by providing evidence unrelated to concentration as such.\(^{159}\)

Although the current U.S. Merger Guidelines are ambiguous on the point, they seem to have abandoned the government’s historical commitment to *Philadelphia National Bank*’s prima facie rule. The guidelines state that they do not purport to assign burdens of proof with respect to any specific issue. However, the methodology employed by the guidelines to consider structural as well as behavioral factors that may affect the exercise of market power are apparently based on the premise that the government must produce the evidence if those questions become relevant.\(^ {160}\)

At the other end of the spectrum lies the Canadian *Competition Act 1986* which explicitly provides that a merger may not be found to be anti-competitive “solely on the basis of evidence of concentration or market shares”.\(^ {161}\) The Act reflects an implicit legislative rejection of the structuralist approach to market performance generally accepted in the U.S., which was seen as inappropriate, given the smaller size of the

\(^{159}\) Section 7.A.1A *supra*.


\(^{161}\) Canadian *Competition Act 1986*, Section 92(2).
Therefore, a merger cannot be blocked based on simplistic structuralist theories that explain the positive relationship between concentration and market power and that deny a role for non-structural considerations. The Canadian provisions thus place the burden of proof that a merger is likely to lessen competition substantially on the competition authorities, which must prove both structural and non-structural elements that characterize the relevant market. This does not, however, preclude significant weight being placed on concentration data as long as dynamic factors are also considered.\textsuperscript{163}

The only European Court of Justice merger decision under the EU Merger Regulations to date signifies that the Court has adopted a similar approach to the Canadian one and will not accept a static style of economic analysis which ignores dynamic effects and is not based on a convincing analysis of all the microeconomic factors.\textsuperscript{164} The ECJ placed the burden of proof on the Commission to assess the implications of static market concentrations indicators in light of a dynamic, economic context that takes into account the strategically important micro-economic factors of the firms' relative position. Similarly, the Commission has indicated in its decisions that while market share figures provide a good starting point for an analysis of dominance, such figures should nonetheless be used with caution and should be analyzed in light of dynamic market factors.\textsuperscript{165}

Most jurisdictions can be placed between these two ends of the continuum. They employ a rule of reason approach when evaluating mergers and do not apply specific weights to structural and non-structural considerations.


\textsuperscript{163} \textit{Ibid}, at p. 97.

\textsuperscript{164} \textit{Kali and Salz}, supra, note 58.

\textsuperscript{165} See, for example, \textit{Tetra Pak/Alfa-Laval} (case IV/M.068) [1991] O.J. L290/35, [1992] 4 CMLR M81 (The Commission stated that "a market share as high as 90\% is, in itself, a very strong indicator of the existence of a dominant position. However, in certain rare circumstances even such a high market share may not be necessarily result in dominance. In particular, if sufficient active competitors are present on the market, the company with the large market share may be prevented from acting to an appreciable extent independently of the pressures typical of a competitive market." ) Examples of high market share mergers cleared by the Commission without extensive analysis include \textit{GE/CIGI} (Case IV/M.465 [1994] C271/3 and \textit{Vestivirus/Wulfrath} (Case IV/M.472) [1994] O.J. C259/2. Camesasca, supra, note 85, at p. 25.
Table 7.1 incorporates all the market structure variables surveyed above that have been adopted by different jurisdictions.

<table>
<thead>
<tr>
<th>JURISDICTION</th>
<th>MARKET STRUCTURE VARIABLES</th>
<th>EVIDENTIARY WEIGHT OF STRUCTURAL VARIABLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>CR4 75%, merging parties 4%-12%</td>
<td>1,800 and an increase of 100 points</td>
</tr>
<tr>
<td>EU</td>
<td>Merging parties 40%</td>
<td>Judicial rejection of reliance on structural variables alone</td>
</tr>
<tr>
<td>Canada</td>
<td>Merging parties 35% or 10% if CR4 65%</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>Merging Parties 40% or 15% if CR4 75%</td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td></td>
<td>$96 million U.S.</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Merging Parties 40% or 60% if one competitor 15%</td>
<td></td>
</tr>
<tr>
<td>Israel</td>
<td>Merging Parties 50%</td>
<td>$6 Million U.S.</td>
</tr>
</tbody>
</table>

* Jurisdictions are organized in size order

Table 7.1: Market Structure Variables in Merger Analysis

5. Anti-Competitive Concerns Raised by Conglomerate Mergers
In addition to concerns of increased market power in specific industries created by horizontal and conglomerate mergers alike, mergers between conglomerates or between
firms controlled by conglomerates may raise additional concerns that pertain to potential competition. Such mergers may lead to interdependent cooperative conduct between the parties that extends beyond the specific agreement by dampening competitive vigor by placing the parent firms in dangerous proximity to discuss and act jointly on aspects of their business and by creating an aura of cooperative team spirit which is apt to dampen competitive intensity between the firms involved, either now or in the future.\textsuperscript{166}

This concern is especially important in small economies in which large conglomerates are likely to be the main challengers of incumbent monopolies by engaging in competition for the market. The substantial resources and varied experience of conglomerates enables them to enter new lines of activity more readily than could a newly established or highly specialized firm.\textsuperscript{167} In general, if there are many diversified enterprises the incentive to compete is substantial and the opportunity to work out satisfactory terms is slight, whereas if there are a few diversified enterprises competition is less attractive and collusion is easier. In a small economy, unless enterprises are international, there is room for fewer large diversified enterprises than in a large one.\textsuperscript{168} Hence, unless foreign trade is significantly influential, such mergers should be looked upon with considerable skepticism. Business transactions that may reduce future competition between these large players, even if they increase efficiency in the specific transaction in question, should be analyzed in a broader perspective, which takes into account the long-term dampening of competition between such conglomerates that can amount to geographical or product market division or to other cooperative or collusive behavior. This skepticism is notable in several small economies.

\textsuperscript{166} See, for example, the U.S. decision in \textit{Northern Natural Gas Company v. FTC} 399 F. 2d 953, 972. See also the Israeli Director's decision in \textit{Re Middle East Energy} (unpublished).

\textsuperscript{167} Some large economies recognize similar concerns. See, for example, the U.S. case of \textit{FTC v. Proctor & Gamble Co.}, supra, note 65 (The court evaluated P&G's request to acquire the assets of Clorox Co. Clorox manufactured chemical-liquid-bleaching cleaners and held 48\% percent of the relevant market. P&G is a large conglomerate for household products, that did not compete in Clorox's market. The FTC and the courts declined to approve the merger on the grounds of P&G's conglomerate power and the fact that its entry into the market will prevent new entrants from entering the market, especially given the high concentration levels in Clorox's market. It also took into account the elimination of P&G as a potential competitor in the market that might have entered the market and challenged Clorox's position were the merger not to take place). See also attempt to pass legislation that will prohibit completely, or limit significantly, the merging of conglomerates. Senator Edward M. Kennedy's legislative proposal, 6\textsuperscript{th} Cong. 1\textsuperscript{st}. Sess (1979).

\textsuperscript{168} See Chapter 1 supra..
The special issues raised by conglomerate mergers in a small market can be illustrated by the recent Israeli case of Columbus Capital/Cur Industries. 169 Columbus Capital form part of the Claridge group, which is one of the three large concerns operating in the Israeli market. Cur Industries is another large concern operating in the Israeli market. The Director of the Israeli competition authority analyzed the effects of the proposed merger both on horizontal competition in markets where both concerns have holdings, as well as on the potential and existing competition between the merged entity and other players in the Israeli market. While the first aspect is no different from the analysis of any merger, the second aspect is unique to conglomerate mergers. The proposed merger did not have a large effect on competition among existing firms. In only two markets did the two merging entities possess holdings in two dominant and potentially competing firms which created a real threat of injury to horizontal competition.

However, the crux of the issue was the effect of the proposed merger on competition among the large concerns, as the merger created a real threat to the reduction of potential competition of conglomerates in already concentrated markets. In the pre-merger situation three main conglomerates operated in the Israeli market. Given that each of the three controlled a large set of natural monopolies, competition for the market was of great importance. Any merger between firms controlled by the conglomerates will potentially reduce their inclination to enter into new markets in which the other merging party holds a dominant position. In addition, the three conglomerates have in the past engaged in collusive conduct which served as the basis the Director’s findings of anti-competitive conduct. It was thus found that the merger might harm competition or the public interest. Accordingly, the Director conditioned his approval to the merger on the severing of all ties of the merged entity with one of the large concerns. It also mandated selling the merged entity’s shares in one of the firms which raised a clear competition conflict within two years of the merging date, before which the firms were prohibited from sharing information or acting in concert in any way. 170

169 Re Approval of a Merger in accordance to sec. 21 of the RTPL 1988 between Columbus Capital Corporation and Cur Industries, Ltd. (Jan 5, 1988, unpublished).
170 For a different approach see the Israeli Report of Commission for Mergers and Conglomerates (1977) 32 Haparaklit 559, at p. 573 which has suggested that there is no room for control of conglomerates, when the
Not all small jurisdictions exhibit, however, such concern for conglomerate mergers. In Canada, for example, conglomerate mergers can only give rise to concerns under the *Competition Act* where it can be demonstrated that, in the absence of the merger one of the merging parties would likely have entered the market *de novo*, and that the merger will result in a substantial increase in price. There is need for objectively verifiable information that clearly supports this proposition, such as internal documents that pre-date the merger, recent initiatives by the firm to contest the market, etc.\(^{171}\)

6. Anti-Competitive Concerns Raised by Vertical Mergers

Vertical mergers raise other types of concerns than horizontal and conglomerate mergers, which focus on the ability of the merged firm to increase its market power by controlling a vertical activity in the chain of production and distribution.\(^ {172}\) The main concern is that vertical integration may raise the price of entry of new competitors into the market, thereby raising the price-cost margins that may attract new entry and increasing the market power of the vertically integrated entity. Several conditions have to be met in order for vertical integration to make entry costly. First, production at some stage of the industry, dominated by the vertically integrated firm, exhibits large-scale economies. Second, there are significant cost penalties for production rates below minimum efficient scale. Third, increases in demand caused by new entry could be satisfied by existing firms without significant increases in average costs of production. Fourth, entry by an integrated firm uses more resources than entry at one level and subsequent expansion. This may be the case where information, capital and management requirements for multilevel entry may be great.\(^ {173}\) Finally, the actual or perceived problems with purchasing from or selling to divisions of integrated firms compels firms to enter only as integrated operations. This requires significant probability that the integrated firm will not deal with

\(^{171}\) Canadian Merger Enforcement Guidelines, *supra*, note 121.


\(^{173}\) See, for example, Boulton, *supra*, note 41.
independent firms or that any such dealings will be subject to strategic interruption or strategic cost manipulations. The existence of the last condition is limited by the fact that a monopolist may have limited incentives to foreclose supply to its rivals in other stages of the industry, since it can usually make higher profits by charging monopolistic prices from its rivals/customers. Vertical mergers should thus be evaluated carefully in order to analyze the real incentives and ability of the merged entity to raise prices.

7.4.3 Discussion: The Inappropriateness of the Absolute Value Approach to Small Economies

Adoption of an absolute value approach in a small economy would necessarily produce harmful results, given that its inflexibility does not allow competition agencies and courts to screen non-efficient mergers only. If efficiencies are not taken into account, many mergers that are likely to create significant anti-competitive results, but at the same time will increase total or consumer welfare, will not be allowed. This outcome is especially harmful for small economies, since market structures that tend to facilitate anti-competitive conduct are a necessary evil in order to realize scale economies.

Interestingly, several small economies have adopted the absolute value approach. The Dutch *Competition Act* that came into force in 1998 does not include an efficiency defense. So do the Australian and New Zealand merger control regimes that apply to mergers that were not notified to the relevant competition authorities. The absolute value approach was also adopted by the current Director of the Israeli competition authority. Section 17 of the *Israeli Restrictive Trade Practices Law* requires

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174 See Chapter 5 supra.
175 Khemai reports that most of the proposed mergers in Canada occur in industries in which the specific number of firms is not large and the market share and concentration levels are also high. Khemani, supra, note 4, at p. 228.
176 The Mededingingswet of May 22nd 1997.
177 While it is recognized that there might be reasons of general interest—either economic or non-economic—overriding the restriction of the anti-competitive effects of a proposed merger, the weighting of such considerations is considered to be of a political nature. The Minister of Economic Affairs is therefore vested with the power to overrule the competition authority's director's decision to refuse to license a merger if in his opinion reasons of general interest prevail. As the Act came into force only on January 1st 1998, no such applications was yet made. However, During the parliamentary proceedings the Minister named, by way of example, considerations of national security and structural unemployment as potentially justifying an anti-competitive merger. Getting the Deal through, supra, note 14, Chapter 23, at p. 79.
178 See Section 7.4.1 C above.
a finding of reasonable probability of significant harm to competition or the public interest in the specific market for a merger to be prohibited. This was interpreted by the Director to mandate evaluation of the effects on competition rather than on efficiency. Accordingly, if the merger will most likely increase the market power of the merging parties it will not be approved.\footnote{Based on discussions of the author with the Israeli Director of Competition, January 1999. See also Re acquisition of Dikla by Harel-Hamishmar, in Hageblim Iskiim, supra, note 143, vol. A, at p. 158; Re merger of Tzovar Inc. and Golkal 1992 Inc. (not published, September 17, 1998); Cvalim- Civei Tzion, supra, note 124 (The merger might have been approved based on efficiency considerations, but the Director chose not to do so.)}

The adoption of the absolute value approach in small jurisdictions is nonetheless often based on different assumptions and goals than those of large economies. As noted above, the Australian and New Zealand regulation of mergers that were not notified to the competition authorities can be viewed as a deterrent or a penalty for failing to notify the authorities. The Israeli approach is based on the presumption that “monopolies are forever.” That is, since market forces cannot easily erode monopoly power once it is created, such monopolies should be condemned from their inception. Scale and scope economies can instead be realized through internal growth. Also, given the administrative burden of verifying efficiencies, such proof is not permitted.\footnote{The “why bother” approach which adopts a skeptical view towards the proof of efficiencies is also the basic cause for the adoption of the absolute value approach in the Netherlands. Roundtable discussion, OECD Roundtable, supra, note 85.} This approach ignores three basic facts. First, especially in a small economy where high concentration levels may be necessary in order to realize scale and scope economies, the costs of market power can be balanced by efficiencies. Second, internal growth is often prevented in oligopolistic markets by cooperative profit-maximization. While large economies may assume that scale and scope economies will normally be achieved over time through normal market processes in most markets, this assumption often does not hold in small economies. The much higher concentration of markets means that some potential efficiencies might only be achieved through allowing mergers that have anti-competitive effects.\footnote{New Zealand contribution, OECD Roundtable, ibid.} Third, in markets in which cooperative conduct can be successfully maintained there is no major difference in consumer welfare between one and three competitors.
because of strong mutual forbearance. In such situations it might well be more efficient to let some or all market participants reduce their costs.

Some of the limitations of the absolute value approach may nonetheless be reduced by coupling it with wide safety zones. By foregoing a case-by-case analysis and by increasing the level of legal thresholds for challenging mergers, efficiency-enhancing mergers are allowed without the need to prove efficiencies explicitly.\textsuperscript{182} The Swiss Federal Act on Cartels and Other Limitations to Competition 1995\textsuperscript{183} is an illustrative example. The Act does not contain an efficiency defense.\textsuperscript{184} However, it contains an extremely high threshold for dominance, which captures only concentrations between major companies.\textsuperscript{185} This approach was also adopted by New Zealand, Israel and Australia.

The adoption of wide safety zones recognizes that in many concentrated markets in a small economy mergers may well produce efficiencies that outweigh the anti-competitive harm. It then factors into the definition other factors such as the possibility of collusion and the degree of effectiveness of anti-collusion measures. The better the deterrence of anti-collusion measures, the more weight is given to scale economies issue when defining the safety zone. While this sort of comparison between anti-competitive effects and scale economies is extremely hard to implement accurately, an \textit{ad hoc} balancing approach strives to make a similar comparison in every contested case. It also eliminates the problems inherent in a case-by-case analysis based on presumptions of illegality and efficiency defenses. In addition, it saves the administrative costs of litigating the efficiencies issue in all cases that fall inside the safety zone. Yet, in order to

\begin{itemize}
\item \textsuperscript{182}This was suggested by R.H. Bork, \textit{The Antitrust Paradox; A policy at War with Itself} (NY: The Free Press, 1993, 2\textsuperscript{nd} ed.) 221. A.A. Fisher and R.H. Lande, “Efficiency Considerations in Merger Enforcement” (1983) 71 \textit{Calif. L. Rev.} 1580, 1670-7.
\item \textsuperscript{183}October 6, 1995. Entered into force on July 1, 1996.
\item \textsuperscript{184}The merging undertakings can, nonetheless, apply to the Federal Executive Council for exceptional admission due to predominant public interest.
\item \textsuperscript{185}The threshold for merger notification and review is comprised of two criteria. The first is the turnover of the merging parties. In 1993, for example, only about 70 companies established in Switzerland met this threshold. The second criteria requires notifications of all concentrations with a participating undertaking already found to possess a dominant position under the Act. In addition, the legality test requires not only that the merger create or strengthen a dominant position, but also that it eliminate competition. This condition will be met only in those Swiss markets which are protected from international competition by way of regulation or consumer preferences. Oliver P. Kronenberg, “Swiss Merger Control” [1997] 6 \textit{ECLR} 361.
\end{itemize}
be efficient, safety-zones must be correctly defined so as to capture most of the scale economy problems, but nothing more. This is problematic, given that competition laws usually apply on an economy-wide basis, while scale economies and other industry-specific characteristics that affect collusion differ significantly from one case to another.

7.5 The Balancing Approach

A balancing approach introduces another factor into the merger control equation: benefits from the merger. Since efficiencies are most relevant to small economies, the analysis focuses mainly on them. Following the Williamsonian model that cost savings resulting from a merger may well dwarf the increase in price resulting from an increase in market power, the balancing approach recognizes that a merger should be permitted if the improvements in efficiency resulting from a merger are greater than and offset its anti-competitive effects. Accordingly, regulators are empowered to balance in each specific case the benefits from efficiency and the harms that can come from the change in market conditions, once it is determined that the merger creates anti-competitive concerns. This two-step approach is justified by the fact that it is quite difficult to identify and quantify efficiencies prospectively. The transacting parties, on which the burden of proof of such efficiencies usually rests, and the competition authorities which should evaluate the alleged efficiencies, should not undertake this task if the merger could otherwise be approved. It should nonetheless be emphasized that efficiencies cannot be estimated in isolation from anti-competitive effects, as each affects the likely magnitude of the other.

While in theory balancing is a clear concept, it raises some important practical issues, such as how to balance between increased efficiency and anti-competitive effects and how to prove efficiencies. This section explores some practical aspects of the balancing approach, which may in turn help explain why the defense is invoked relatively

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186 Williamson, supra, note 28.
187 This can be demonstrated by the Canadian Imperial Oil case, supra, note 153. There, the magnitude if the efficiency gains depended on the reaction of existing rivals and potential entrants to the removal of a competitor from the. If they were to expand capacity and effectively duplicate the exiting firm's assets there would be no efficiency gain. The factors militating against the realization of efficiency gains also militate against the existence of anti-competitive effects. McFetridge, supra, note 31.
ininfrequently. To set the background for the analysis, the first sub-section introduces briefly the balancing regimes adopted in several jurisdictions, including the U.S., Canada, Australia and New Zealand. The next sub-section analyzes the suitability of the balancing approach to small economies. As will be seen, the small size of an economy is, in many cases, positively correlated to lower requirements for cognizable efficiencies.

Stage three: Balancing Efficiency considerations

7.5.1 Examples of Jurisdictions which have adopted the Balancing Approach

A. Current U.S. Policy-Efficiencies as a Rebuttal

In the past two decades U.S. merger policy has changed significantly so as to acknowledge the benefits that can accrue from the merging of some parties in some market settings, even if they bring about high levels of concentration. Despite early Supreme Court decisions, which have not yet been overturned as the Supreme Court has not heard a merger case in several decades,188 several federal courts have nevertheless examined efficiency considerations.189 To date, however, no federal court has upheld in practice an otherwise anti-competitive merger on the basis of efficiencies alone.190 At best, the defendants succeeded in rebutting the government’s prima facie case with

188 Although the Supreme Court has not recently spoken on the issue, in some of its Sherman Act decisions it clearly embraced efficiencies analysis. See analysis in Section 7.4.1 A supra.
189 These court decisions rely on an interpretation of the Supreme Court decisions as rejecting only efficiencies that were based on insufficient or speculative evidence. For a discussion of some of the differing views, see, e.g., University Health, supra note 70. See also FTC v. American Medical Int‘l Inc., 104 FTC 1, 217 (1984) (“The Supreme Court has stated, in dicta only, a bias against assertions of the efficiencies justification in Section 7 cases, and those statements do not appear in the context of an efficiencies defense.”) See also P. Areeda & D. Turner, supra, note 132, section 941b (“To reject an economies defense based on mere possibilities does not mean that one should reject such a defense based on more convincing proof.”). While some lower federal courts have rejected consideration of efficiencies, relying on their reading of Supreme Court precedent, most of these are older cases. See, e.g., ITT v. GTE, 518 F.2d 913, 936 (9th Cir. 1975); RSR Corp. v. FTC, 602 F.2d 1317, 1325 (9th Cir. 1979) cert. denied, 445 US 927 (1980).
189 Contributions of the U.S. in OECD Roundtable, supra, note 86; Griffin and Sharp, supra, note 84. Joseph Kattan has surmised that courts have tended to align efficiency claims and analyses with their particular determination of the likely competitive effects of a challenged merger. See Joseph Kattan, “Efficiencies and Merger Analysis”, (1994) 62 Antitrust L.J. 513, at p. 519-20.
evidence showing that the intended merger would create significant efficiencies.\footnote{B} In some cases efficiency defenses were found relevant but unnecessary as the legality of the merger could be determined without assessing the purported efficiencies.\footnote{A} In most cases the merger was found to be illegal because the efficiencies submitted were not sufficient to overcome the anti-competitive effects.\footnote{C} The administrative decisions of the FTC also consider efficiencies as a factor in the analysis of likely competitive effects\footnote{D} but do not recognize them as a legal defense.\footnote{E} The recognition of efficiencies was advocated by many prominent U.S. scholars.\footnote{F}

The Eleventh Circuit Court of Appeals decision in \textit{FTC v. University Health, Inc.},\footnote{H} is often cited as illustrative of the most lenient approach towards efficiencies taken by a federal court. There, the court stated that "[i]t is clear that whether an

\begin{itemize}
\item[\footnote{B}] \textit{Butterworths} ("the interests of consumers are, under the unique circumstances of this case, likely to be advanced rather than hurt, through the provision of more efficient, higher quality, and lower cost health care...the defendants have persuasively rebutted the FTC's prima facie case.").
\item[\footnote{C}] See, for example, \textit{University Health, supra}, note 70 (A defendant may rebut the government's prima facie case with evidence showing that the intended merger would create significant efficiencies in the relevant market; the appellees, however, failed to demonstrate that their transaction would yield any efficiencies); \textit{U.S. v. United Tote, Inc.} 768 F. Supp. 1064 (D. Del. 1991) 1084-5 (Efficiency claims were found insufficient to overcome the evidence on the anti-competitive effects, in particular because there were no guarantees presented that these savings would be passed on to consumers).
\item[\footnote{D}] \textit{American Medical International Inc} 104 FTC 219-20; \textit{Honickman 5 Trade Reg. Rep. (CCH) 23,286} at 22,965-66 (1992)(The FTC concluded that "only an extremely strong showing of net efficiencies" (which the proponent failed to make) would outweigh the competitive risks of a transaction that presented "a high risk to competition." \textit{Ibid}, at p. 22,964-5.)
\item[\footnote{E}] Contributions from the U.S., in OECD Roundtable, \textit{supra}, note 86 ("Under U.S. antitrust law, efficiency claims are not recognized as an absolute defense to an otherwise anti-competitive agreement but rather constitute a factor that in some circumstances may be weighed in the determination of the net competitive effects.")
\item[\footnote{G}] \textit{University Health, supra}, note 70.
\end{itemize}
acquisition would yield significant efficiencies in the relevant market is an important
c consideration in predicting whether the acquisition would substantially lessen
competition. Market share statistics, which the government uses to make out a *prima facie*
case under section 7, are not an end in themselves; rather, they are used to estimate
the effect an intended transaction would have on competition. Thus, evidence that a
proposed acquisition would create significant efficiencies benefiting consumers is useful
in evaluating the ultimate issue - the acquisition's overall effect on competition." The
court went on to say "[w]e think, therefore that an efficiency defense to the government's
prima facie case in section 7 challenges is appropriate in certain circumstances." However, the Court also stated that "[o]f course, once it is determined that a merger
would substantially lessen competition, expected economies, however great, will not
insulate the merger from a section 7 challenge." Moreover, the difficulty involved in
proving efficiencies , has led the court to the surprising, if not antithetical conclusion that
"[b]ecause of these difficulties, we hold that a defendant who seeks to overcome a
presumption that a proposed acquisition would substantially lessen competition must
demonstrate that the intended acquisition would result in significant economies and that
these economies ultimately would benefit competition and, hence, consumers."200

The competitive effects approach is most apparent in the Horizontal Merger
Enforcement Guidelines published jointly by the DOJ and the FTC and last modified in
1997.201 The guidelines provide that the presumption of anti-competitive effects, which is
triggered by specific concentration levels, may be mitigated or aggravated by several
non-concentration factors on a case-by-case basis. Most importantly, the guidelines allow
for an efficiency defense as long as the merging parties can show that the proposed
merger's efficiency benefits to consumers will outweigh the impact of increased
concentration on consumer welfare. Accordingly, efficiencies presented under the pre-
merger notification procedures may help to decide the exercise of prosecutorial discretion
for or against a government challenge to a proposed transaction. Publicly, however, the

198 Ibid. See also United States v. Rockford Memorial Corp., 717 F. Supp 1251, 1289-91 (N.D. Ill. 1989),
aff'd, 898 F.2d 1278 (7th Cir.), cert. denied, 498 US 920 (1990); Country Lake, *supra*, note 56; See
generally ABA, *supra*, note 190, at p. 320
199 University Health, *supra*, note 70, at p. 1222.
200 Ibid.
agencies have rarely acknowledged any decision not to challenge a merger that they believe anti-competitive on the basis of its efficiency-enhancing potential.202

The competition authorities and courts require the following conditions to be met in order to recognize efficiencies:

1. Efficiencies must be real rather than pecuniary. For example, cost savings due to avoiding taxes or negotiating lower output prices are regarded as transfers between the firm’s owners and other groups, as opposed to real cost savings. Production efficiencies—cost savings that permit firms to produce more output or better quality output from the same amount of inputs, are cognizable, as are distribution cost savings and dynamic efficiencies.203

2. Necessity: efficiencies must be realizable only through the proposed merger. This means that the efficiency claims will be rejected if equivalent or comparable savings can reasonably be achieved by the parties through other means without the merger’s potential adverse competitive effects.204 Such means could include internal expansion by one or both parties, other mergers or market structures that could be less anti-competitive, or inter-firm contractual arrangements that fall short of complete mergers.

3. Sufficiency: the expected net efficiencies must be sufficient to reverse the merger’s potential to anti-competitive harm.205

4. Efficiencies must be passed on to consumers, rather than only benefiting the parties to the merger (consumer welfare standard)206

5. Some courts have required that the claimed efficiencies must be achieved in the relevant market rather than in other markets.207

202 Discussion, OECD Roundtable, supra, note 86 (“While efficiencies have seldom been determinative in a formal sense, it is certain that the issue has been relevant to enforcement agencies in decisions not to challenge mergers as a matter of prosecutorial discretion”).

203 U.S. Merger Guidelines, supra, note 121, para. 4.


205 U.S. Merger Guidelines, supra, note 121.

206 See, for example, University Health, supra, note 70, at 1223; FTC v. Imo Indus., Inc., 1992 Trade Cas. ¶ 69,943 at 68,559-560 (1992).

207 RSR Corp. v. FTC, 602 F.2d 1317, 1325 (9th Cir. 1979) (Anti-competitive effects held to be caused by a merger are not offset by the increased ability to compete in another market), cert. denied, 445 U.S. 927 (1980); Ivaco, supra, note 204, at p. 1427 (W.D. Mich. 1989)(Refusing to consider pro-competitive effects outside relevant product market); United Nuclear Corp. v. Combustion Eng'g, Inc., 302 F. Supp. 539, 554-
U.S. courts have placed the burden of proof of efficiency claims on the merging parties and require clear and convincing proof of significant economies. This strict evidentiary burden has, in practice, negated the availability of the efficiency exception. The Merger Guidelines seem to adopt a more lenient approach in requiring that the merging parties must substantiate efficiency claims so that the competition agencies can verify by reasonable means the likelihood and magnitude of each asserted efficiency, how and when each would be achieved (and any cost of doing so), how each would enhance the merged firm’s ability to compete, and why each would be merger specific. Yet most courts still employ the higher standard for burden of proof.

In 1995 the FTC initiated hearings to examine the Commission’s enforcement policies in light of increased globalization of markets and the need to foster innovation. The hearings responded to criticisms that U.S. enforcers have been reluctant to take efficiency considerations into account in enforcement analysis. The preponderance of views presented at the hearings was that the current position in the United States was overly restrictive and unsatisfactory. However, mixed views were presented as to the best manner to reform this area of enforcement. In its report, the FTC stated that “the weight and significance accorded to different types of efficiencies should be a function of their magnitude and probability, the degree to which they likely will enable the merged firm not only to be a better competitor but to enhance (or not lessen) competition and thus benefit consumers, and the delay with which these consumer benefits are to be realized.” Following the hearings, the Merger Guidelines were modified in 1997 to clarify the scope of efficiencies in merger analysis. However, efficiency claims are still very restricted as the conditions for cognizable efficiencies are extremely hard to meet.

55 (E.D. Pa. 1969) (Holding that "[i]t is simply not legally possible to permit a clear violation of the Clayton Act in one line of commerce in order to strengthen competition in another line of commerce.").

208 See, for example University Health, supra, note 70, at p. 1223; Rockford Memorial, supra, note 198, at p. 1289-1291; U.S. v. Long Island Jewish Medical Center and North Shore Health System, Inc. 938 F. Supp. 121 (E.D.N.Y. 1997) 147. See also ABA, supra note 190, at p. 320.


210 For a synthesis of the arguments and recommendations presented at the FTC Hearings, see 69 Antitrust & Trade Reg. Rep. (BNA), 681-82 (Dec. 21, 1995).

211 FTC Staff Report, supra, note 109, at p. S. 36.
The guidelines adopt a sliding-scale approach, stating that "when the potential adverse competitive effect of a merger is likely to be particularly large...extraordinarily great cognizable efficiencies would be necessary to prevent the merger from being anti-competitive...efficiencies almost never justify a merger to monopoly or near-monopoly."212

Although courts and agencies alike have moved away from reliance on market share and concentration presumptions and towards an intense factual inquiry on the industry-specific characteristics of the market in which the merging entities operate, the basic rules, especially legal presumptions and burdens of proof, still convey an underlying presumption against concentration. Despite the greater sensitivity towards gains from production and distribution economies, the efficiency defense is very limited and hard to prove.213 Moreover, enforcement agencies in the United States have been extremely reluctant to analyze and apply a substantive efficiency defense. The theoretical possibility of recognition of efficiency considerations has little relevance in practice.

Canada- Efficiencies as an Explicit Legal Consideration

Canadian competition legislation is unique in providing for an explicit efficiency exception to otherwise anti-competitive mergers. When a merger is expected to be both anti-competitive and efficiency enhancing, the Competition Act resolves the conflict in favor of the merger when the likely efficiency gains are greater than and offset the likely anti-competitive effects, and these efficiency gains would not be attained if the merger was prohibited.214 This efficiency defense is much more significant, at least in theory, than in the U.S. The essential procedural difference is that Canada's efficiency exception acts as an affirmative defense to an otherwise negative finding against a merger. This is in contrast to the present U.S. practice of considering efficiencies as part of a rebuttal.215

212 U.S. Merger Guidelines, supra, note 121.
213 See, for example, Joseph F. Brodley, "Proof of Efficiencies in Mergers and Joint Ventures" (1996) 64 Antitrust L.J. 575; Michael L. Weiner, "Antitrust and Enhancing Efficiency" (1997) 11 Antitrust 4; Joseph Kattan, "Statement Before the FTC Hearings" 69 Antitrust & Trade Reg. Rep. (BNA), 584 (Nov. 16, 1995); Posner, supra, note 196, at 112 ("The measurement of efficiency...[is] an intractable subject for litigation.").
214 Section 96(1) of the Canadian Competition Act 1986.
215 Sanderson, supra, note 4.
To be considered as relevant, the Act provides that the claimed efficiencies must not be realizable if the merger is prevented and must represent a savings of real resources rather than a redistribution of income. Such efficiencies typically arise from operating economies of scale and scope in production or distribution, management related efficiencies and qualitative efficiencies such as research and development or enhanced ability to dynamically respond to developments in the market. Savings in fixed costs are as important as those in variable costs.

The adoption of a balancing approach in Canadian legislation is based on the recognition of the importance of economic efficiency to the Canadian economy. Canada is a relatively small, open economy characterized by high concentration in many markets; Canadian firms may not be operating at minimum efficient scale, which causes efficiency issues to be particularly important.

The Canadian approach towards efficiencies is much more accommodating than its U.S. counterpart. First, the Merger Guidelines contemplate a total welfare balancing process. Although the total welfare approach has been questioned in non-binding comments of the (now former) Chairperson of the Competition Tribunal, whose observations suggest sympathy for a consumer welfare approach, the competition Bureau still applies the total welfare approach. Second, the Canadian competition authorities recognize that efficiency gains from the merger that could occur in markets other than the relevant market for competition analysis are taken into account. Third, efficiencies are to be established on the balance of probabilities in the usual way dictated by civil law. Merging parties bear the responsibility of establishing, on the balance of probabilities: (i) that the various claimed efficiency gains are likely to result from the merger; and (ii) that those efficiency gains would not likely be achieved in an alternative way if an order were made in respect of the merger.

To date, however, no case has explicitly turned on efficiencies, either in the Competition Tribunal or the Bureau of Competition Policy. In the Hillsdown case

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216 Section 96 of the Canadian Competition Act 1986.
217 Weston, supra, note 36.
218 Canadian Merger Enforcement Guidelines, supra, note 121.
219 Obiter dictum in Hillsdown, supra, note 124.
220 Ibid, at section 5.2.
221 Sanderson, supra, note 4.
considered by the Tribunal, the defense was raised by the parties, but the Tribunal ultimately ruled that the transaction was not significantly anti-competitive. Only one merger reviewed by the Director since 1986 has satisfied the total welfare test contemplated by section 96.222 However, after the trade-off analysis was performed, and before the Director's final decision, new information came to light which led to the conclusion that the merger would not likely result in a substantial lessening of competition. As a result, there still has not been a single case in more that the decade since section 96 came into existence where that provision has had a role to play in Canadian merger policy.223 This can be partly explained by the high burden of proof, which has proven to be an exceedingly difficult burden to meet at the pre-merger stage,224 as it is typically very difficult to prove that efficiencies will likely be attained and materialize, especially since quantifying and proving efficiencies is a time and resource demanding task. Yet some commentators suggest that efficiencies have been influential in cases in which the Director was uncertain about the market power consequences of the merger. In such cases efficiencies helped resolve ambiguities in favor of the merging parties.225

Australia- Public Benefit Test in Authorization Proceedings
Efficiency arguments play a role in various stages of merger analysis in Australian competition law. These stages range from the informal pre-merger consultations to formal administrative authorization proceedings and judicial determinations. The extent of consideration at each stage varies, with the most substantive consideration and application occurring at the administrative authorization proceedings.

Australia's merger regime has two tiers of control. Section 50 of the Trade Practices Act 1974, as amended, is the principal section governing mergers and

222 Paul S. Crampton, "The Treatment of Efficiency Gains in Canadian Merger Analysis", in OECD, supra, note 86, footnote 31.
223 Ibid.
224 Ibid. See also McFetridge, supra, note 31.
225 Ibid.
acquisitions.\textsuperscript{226} As noted above, efficiencies are relevant under this section only to the extent that they impact on the level of competition in the market.\textsuperscript{227} As an alternative to court challenges, parties to a proposed merger are provided with the option of seeking formal authorization of the merger by the ACCC.\textsuperscript{228} Authorization is the process of granting immunity, on public benefit grounds, for proposed mergers which would or might otherwise contravene section 50. Those dissatisfied with a Commission decision may appeal to the Australian Competition Tribunal for a rehearing of the application for authorization based on material placed before the Commission as well as new material.\textsuperscript{229}

The Act does not define public benefits, except to the extent that it requires that significant increases in exports or import replacements be considered as public benefit and that the Commission take into account the relevant matters relating to international competitiveness.\textsuperscript{230} Both the Tribunal and the Commission interpreted "public benefits" to include economic efficiencies.\textsuperscript{231} For example, in \textit{Email Ltd./Simpson Ltd.},\textsuperscript{232} the Trade Practices Commission (the predecessor of the ACCC) authorized a proposal to rationalize the production of white goods. Under the proposal Email Ltd. would discontinue production of washing machines and Simpson Ltd. would discontinue production of refrigerators and freezers. Each would purchase its supply of the discontinued line from the other and repackage and sell it under its own label. Email and Simpson had market control over the supply of white goods in Australia (i.e., a specialization agreement). The parties claimed the following public benefits from their proposed rationalization: (a) more effective and thus efficient utilization of resources


\textsuperscript{227} Australian Merger Guidelines, \textit{supra}, note 47, Sec. 5.19.

\textsuperscript{228} Sections 88-90 of the Australian \textit{Trade Practices Act 1974}.


\textsuperscript{230} \textit{Trade Practices Act 1974}, Section 88.

\textsuperscript{231} "Efficiency Issues and Authorization Process" (ACCC Publications)("The more efficient utilization of resources of the Australian economy which may be achieved through mergers will be of substantial benefit to the Community as a whole. Accordingly, efficiency considerations are of primary importance in assessing the extent to which there may be an overall public benefit from a merger..."); Australian Merger Guidelines, \textit{supra}, note 47, section 6.38; Allan Fels, "Mergers, Competition Policy and Microeconomic Reform, (1994) \textit{Austl. Trade Prac. Rep.} (CCH) at p. 31-015 (The Chairman of the Trade Practices Commission pointed out that the TPC will give particular consideration to those public benefits in the form of increased efficiency that will benefit the public through lower unit costs and prices).

invested in manufacturing plant now possessed by Email and Simpson; (b) higher productivity and correspondingly lower unit costs of production which will flow from the added volume of throughput of refrigerators, vertical freezers and washers in the relevant plants; (c) a real incentive for the applicants for further investment in research and development in order to keep abreast of the large overseas enterprises whose products presently find their way as imports to Australia, and a commensurate incentive to invest and to continue to invest in modern plant which will be justified because of higher volumes of production; (d) greater competitive effectiveness of Australian industry against imports and thus the likelihood of considerable savings of Australian foreign exchange improving Australia's balance of payments; employment would remain in Australia; (e) Australia would maintain manufacturing capability.\(^{233}\)

The Australian Merger Guidelines, first drafted in 1992 and finalized in 1997, which outline the ACCC's policy for the administration and enforcement of those provisions of the Act dealing with mergers, state clearly that efficiency considerations are established aspects of the "public benefits" test in authorization proceedings. For authorization to be granted, an applicant must establish "public benefits" that outweigh any anti-competitive detriment of the proposed conduct. The benefit must be shown to have a causal relationship with the acquisition; that is, the benefits must be demonstrated to flow from the act of merging and not merely commercial benefits that are provided by the acquired company. However, the applicant is not required to show that the acquisition

\(^{233}\)For additional cases recognizing significant resource savings from rationalization as benefitting the public see Davids (1995) ATPR 50-185 and Davids (1996) ATPR 50-224 (Recognizing resource savings from rationalization, including warehousing and distribution facilities, advertising and generic product ranges, particularly where these savings would enhance the competitive position of that sector of the industry); Henderson's Federal Springs Ltd (1987) Austl. Trade Prac. Rep. (CCH) p. 50-054 (The proposed acquisition of a business that would leave Henderson in the position of sole Australian manufacturer of automotive suspension components and seating components. The TPC found public benefit in rationalization that would generate cost savings since there was excess capacity in the industry. The TPC granted authorization subject to price containment by Henderson and its continued participation in the cost disclosure procedures that were operated by motor vehicle producers); Aridmona/Letona/SPC (1988) Austl. Trade Prac. Rep. (CCH) p. 50-068 (Concerned the Australian domestic market for canned deciduous fruit. If the proposed merger had been authorized the three applicant companies would account for 97% of this market. Evidence showed the decline in domestic market contributed to continuing difficulties on the export front. The TPC found, however, that the merger would lessen competition considerably. Consequently, the resulting detriment from the merger was high and, hence, the public benefit needed to be considerably higher to justify the authorization. The applicants failed to demonstrate sufficiently the probabilities that efficiencies would occur from the rationalization).
is a necessary and sufficient condition of the public benefit claimed, as this would reintroduce a previous concept into the legislation—of being a benefit "not otherwise available." Pecuniary cost savings from increased bargaining power which merely result in a transfer of wealth rather than any real resource savings for the community may not be considered to be substantial public benefits in themselves, unless such cost savings arise from the creation of countervailing power and may move the market outcome closer to a competitive one. The efficiencies should also be of a durable nature.

The Merger Guidelines also require that the resulting benefit must be a probable effect, rather than a possible or speculative effect, of the merger, but need not be susceptible to formal proof. Nonetheless, while it is often difficult to measure public benefits in precise quantitative terms, general statements about possible or likely benefits will not given much weight unless supported by factual material.

The Tribunal and the ACCC diverge on the legality test to be applied. The Commission has tended to use the word "public" in its ordinary sense and concluded that the test required “benefits to the public and not merely to the applicant or some other limited group”. On the other hand, the Tribunal has tended to use the word in its economic sense under which a purely private benefit in reduction in production costs can be translated into a public benefit in terms of total efficiency gains.

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234 The Australian approach compares the position that would apply in the future were the proposed merger not given effect, with the position in the future which would arise if the proposed acquisition were given effect. Re Tooth and Co. Ltd. Re Toohey Ltd. (1979) ATPR 40-113, at 18,186; Australian Merger Guidelines, supra, note 47.
235 Merger Guidelines, supra, note 47 section 6.40.
238 Trade Practices Commission First Annual Report 1975, at 4. See, for example, Re ACI Operations Pty Ltd 1991 ATPR (1991) 50-108. This approach has been justified on three grounds. First, public is contrasted with private benefits. Second, since anti-competitive detriments are public in nature, so should the countervailing benefits be construed. Third, in pragmatic terms, public benefits are more difficult to assess and therefore only obvious benefits would be recognized. Banks, supra, note 57, p. 364 citing to J. Duns “Competition Law and Public Benefits” (1994) 16 Adelaide L. Rev. 245
239 The benchmark Australian case with regard to public benefits is Re QCMA and Defiance Holdings Ltd. (1979), Austl. Trade Prac. Rep. (CCH) P 40-012 (The Tribunal ruled that although the interests of purchasers, consumers, and users tend to dominate, it would not rule out of consideration any argument coming within the widest conception of public benefit which is to be interpreted as including "anything of value to the community generally, any contribution to the aims pursued by society including as one of its principal elements...the achievement of the economic goals of efficiency and progress." p. 17,242); This
The Commission's view seems to be adopted by the legislature. The Hilmer Report commissioned by the Australian Government in 1993 suggested that in determining questions of public benefit, primary emphasis should be placed on economic efficiency considerations. This recommendation was rejected and the Australian Government opted for a more consumer-oriented approach. Despite these changes, the Tribunal has restated its position in Re Queensland Independent Wholesalers Ltd. However, the Tribunal was less clear on the weight it is prepared to attach to private benefits.

The 1997 Merger Guidelines signal a convergence of opinions between the Tribunal and the ACCC. The Commission specifically recognized that "[t]he concept of a benefit to the public is not limited to a benefit to consumers; a benefit to a private party which is of value to the community generally is a public benefit." The new guidelines acknowledge that "a merger may result in economies of scale or other resource savings which may not be immediately available to customers in lower prices may be of benefit to the public as a whole. The community at large has an interest in resource savings, releasing those resources for use elsewhere." In Du Pont the Commission accepted that improvements in the efficiency of sodium cyanide production resulting in resource savings, such as electricity and capital, constituted a public benefit, although consumers

view was restated in Re Howard Smith Industries Pty Ltd. and Adelaide Steamship Industries Pty Ltd. 1977 ATPR (1977) 40-023, 17,325 at 17,335 (The Tribunal clearly stated that in deciding what constituted a public benefit, the public as consumers was not the sole criterion. If a merger could achieve economies of scale and savings in cost this might constitute a substantial benefit to the public even if the cost savings were not actually passed on to consumers in the form of lower prices. Additionally, the word public was to be construed as the Australian public, so that any benefits flowing overseas would be disregarded). In later decisions the Tribunal reiterated its views by saying that the achievement of economic goals of efficiency and progress will commonly be paramount. It did, however, recognize that for a benefit or a detriment to be considered public, it must be general in its application, but this did not mean that private benefits or detriments were irrelevant. Banks, supra, note 57, p. 363 citing Re Rental Traders Cooperative (WA) Ltd 1979 [1979] 3FLR 244; Re Southern Cross Beverages-Cadbury Schweppes Pty Ltd. ATPR (1981) 40-200.

241 This is illustrated by the fact that the Competition Policy Reform Act 1995 has inserted a new Section 2 into the Trade Practices Act 1974 which states that "[t]he object of this Act is to enhance the welfare of Australians through the promotion of competition and trading and provision for consumer protection." It now appears that the terms public is to be construed in terms of the consuming public. Banks, supra, note 57, p. 364-5.
243 Australian Merger Guidelines, supra, note 47, section 6.42
244 Ibid, at section 6.43
were unlikely to benefit from lower prices." At the same time, it stated that "[t]he interests of the public as purchasers, consumers or users are relevant. Lower prices for consumers and lower input costs for business, with potential ramifications for international competitiveness, are considered by the Commission to constitute public benefits." It then referred to the Tribunal’s decision in Howard Smith, which stated that if "if a merger [that was likely to result in the achievement of economies and a considerable cost saving in the cost of supplying a good or service] benefited only a small number of shareholders of the applicant corporations through higher profits and dividends, this might be given less weight by the Tribunal, because the benefits are not being spread widely among the members of the community."  

**New Zealand-Public Benefit Test in Authorization Proceedings**

Section 47 of the New Zealand Commerce Act 1986 prohibits mergers and acquisitions that create or strengthen a dominant position in the market. However, as in Australia, a person or firm who wishes to merge may apply to the Commission for authorization. The Commission is mandated to grant an authorization if the merger would lead to a public benefit that outweighs the lessening in competition. The effect of an authorization is to allow the merger to proceed without the risk of challenge in the courts by way of public or private enforcement. However, parties to an anti-competitive merger cannot avoid liability for past transgressions by applying for and gaining authorization once the merger took place.

The public benefit test is, essentially, an efficiency defense. Efficiency is the principal factor that the Commission and, on appeal, the courts take into consideration under the Act. This interpretation builds upon the recognition that competition is not an

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245 Du Pont, supra, note 56.
246 Howard Smith, supra, note 239, at 17,334.
247 Section 67 of the Commerce Act 1986.
248 Contribution from New Zealand” in OECD Roundtable, supra, note 86.
249 Section 3a of the Commerce Act 1986 requires the Commission, when considering the extent of any benefits to the public, to have regard to any efficiencies.
end in itself and that the underlying objective of the Act is to promote economic efficiency.\textsuperscript{250}

The Commerce Commission Merger Guidelines\textsuperscript{251} note that detrains from the loss of competition include losses of economic efficiency, incentives to innovate and incentives to avoid waste. Benefits include tangible benefits such as scale and scope economies, better use of existing capacity, cost reductions due to reduced labor costs, greater specialization in production, lower working capital and reduced transaction costs. They also include intangible benefits such as environmental and health improvements. \textit{Per se} transfers of wealth are not considered as gains. The guidelines also condition cognizable efficiencies on the requirement that the gain must be shown to be dependent on the proposed acquisition.\textsuperscript{252}

From 1986, the year the \textit{Commerce Act} came into force, until 1991, the New Zealand public benefit test was applied to require that the benefits accrued to a reasonable cross-section of the public. Since 1991 the courts have established that the public benefits must be net gains in economic or social terms.\textsuperscript{253} The guidelines state clearly that the distribution of gains and losses is irrelevant to their inclusion in the process of weighting benefits and detrains.

New Zealand has adopted a low burden of proof standard that requires the merging parties to establish "a tendency or real probability" that claimed public benefits will materialize. The comparison between public benefits and detrains is, inevitably, largely a qualitative judgement although quantification is encouraged where possible.\textsuperscript{254}

\textsuperscript{250} Telecom, supra, note 48 ("In the context of [competition] legislation, the encouragement of competition and competitive behavior within relevant markets and the achievement of the economic goals of efficiency and progress will commonly be paramount...The term ‘benefit to the public’ draws attention to the possibility that business conduct, that would otherwise infringe the Act, may have social value. Hence, it would not be in the public interest to rely exclusively upon the functioning of competitive markets to deliver anything of value to the community generally..." p. 527)

\textsuperscript{251} New Zealand Commerce Commission Merger Guidelines, supra, note 49.

\textsuperscript{252} See, for example, Health Waikato Ltd/Midland Health Commission Decision 275, 1 August 1995 (Proposed contractual arrangements between parties prohibited where they would result in anti-competitive effects and the most probable outcome in the absence of the proposed contracts is that the proposed facility would be built under different, more competitive, contractual terms).

\textsuperscript{253} See Telecom, supra, note 48 ("Economic efficiencies are real and of benefit to the public in terms of overall resource allocation and economic welfare even if little or none of the benefit directly accrues to others than the owners of the business.")

\textsuperscript{254} New Zealand Merger Guidelines, supra, note 49.
7.5.3 Discussion: The Suitability of the Balancing Approach for Small Economies

Optimal competition policy for a small economy requires, as noted above, the adoption of regulatory tools that acknowledge the benefits that can arise from realization of efficiencies in certain market settings. It recognizes that increases in market power are not necessarily welfare-reducing. Given that efficiencies vary widely from one industry to another such that no general presumptions can be made based on market structure alone, this requires a case-by-case or industry-specific analysis of the potential efficiencies recognizable in each specific market setting. In theory, the balancing approach is best suited for the merger policy of small economies. It should come as no surprise that the most advanced regulatory regimes for recognizing efficiencies were adopted in small economies.

Practice has shown, however, that the conditions for recognizing efficiencies play a decisive role in the practical implementation of efficiency considerations in merger decisions. The stricter the requirements, the less weight is given in practice to efficiencies and the more theoretical the ability to allow a merger based on efficiencies to go through. Several factors are positively correlated to the difficulty of proving an efficiency defense. The first is the stringency of the burden of proof placed on the merging parties to prove the alleged efficiencies that may result from the merger. The second related factor involves the evidentiary weight attached to purely structural factors. In a small market, characterized by scale economies, concentration levels are likely to be very high. If strong evidentiary weight is given to presumptions of illegality based on concentrated market structures, an efficiencies defense may well become a theoretical possibility only. The third involves the balancing standard adopted, such as consumer or total welfare. The fourth factor involves other conditions for cognizable efficiencies, such as sufficiency and necessity. The higher the efficiencies have to be in order to justify a merger, the harder it is to meet this standard. In recognizing the difficulty of proving efficiencies, small economies should take into account the impact of these factors on their competition policy and devise tools that would help overcome some of these obstacles.

The importance of the conditions for recognizing efficiencies can be exemplified by the unsuitability of the current U.S. policy to deal with market structures which are characterized by concentrated market structures justified by scale economies. As Gilo
observes, the U.S. health care industry suffers from many of the problems of markets in small economies: Markets are regionalized such that scale economies are large relative to the market size and interdependent conduct is widespread. In determining the legality of horizontal mergers in this industry courts have exhibited little sensitivity to the unique characteristics of the market. Even where efficiency defenses are recognized by the courts and smallness acknowledged, the analysis resembles that of a large market: Similar concentration ratios are used for presuming anti-competitive effects and efficiency claims are dealt with the same skepticism as such claims in large markets.

Similarly, the DOJ and FTC Health Care Industry Guidelines, while acknowledging the issues of small markets in the health care market, have adopted low concentration thresholds and count on an efficiencies defense to address the special characteristics of the market. Since in the health care industry it is quite common that concentration ratios are high, it is often the case that challengers of a merger are able to establish a prima facie presumption of anti-competitive effects. Hence, analysis of anti-competitive effects almost always produces strong inclinations towards the condemnation of a merger. This factor, combined by the often insurmountable burden of an efficiency defense based on the high burden of proof placed on the merging parties to show that the alleged efficiencies are sufficient to offset any loss in consumer welfare and could not be achieved in other ways that involve lower allocative efficiency losses, causes the problems of scale economies in the health care industry to be systematically under-treated.


256 Most of the merger cases that involved efficiency claims in recent years have involved hospitals or other health care entities. See cases cited in footnote 257 above.

257 Rockford, supra, note 198 (Although the market was found to be concentrated as a result of scale economies, the court examined concentration ratios as in a large market analysis and cited the Philadelphia National Bank doctrine, stating that “competition is likely to be greatest when there are many sellers, none of which has any significant market share” which is a typical large market analysis that presumes that scale economies pose no problem); University Health, supra, note 70 (The greater possibility of the existence of unattainable economies led the court to the surprising conclusion that the requirement of proof must be strict. p. 1223). But see Carrollton 707 F. Supp. 864 (Adoption of efficiency claims. The defendants (non profit entities) were believed to ensure that the savings will be passed on to consumers. Yet the decision was based, to a large degree, on competition from outpatient clinics).

Merger policy in many small economies, surveyed above, generally takes account of the special characteristics of a concentrated market characterized by scale and scope economies. In most small economies there is no apriori negative approach towards mergers. Rather, the approach is that mergers, in general, are a positive phenomena that can serve the public interest. The relevant authorities are authorized to balance the benefits from efficiency and the harms from increased concentration that would likely result from the proposed merger. For one, the evidentiary weight placed on concentration indicators is much lower than that adopted in the EU and the U.S. Second, concentration thresholds are usually triggered with much higher thresholds. Finally, the requirements of proof of efficiencies are, often, much lower than that adopted in large economies. While the onus of proof of efficiencies usually falls upon the parties to the merger, due to information asymmetries, the burden of proof is much lighter in small economies than in the U.S.

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</tr>
<tr>
<td></td>
<td>Tendency or real probability</td>
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<tr>
<td></td>
<td>Yes</td>
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<td></td>
<td>No. Lower total welfare</td>
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<td>No. Lower total welfare</td>
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<td>No</td>
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<td></td>
<td>Unclear</td>
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<td></td>
<td>Unclear</td>
</tr>
</tbody>
</table>

* Jurisdictions are organized in size order

Table 7.2: Requirements for cognizable efficiencies in different jurisdictions which have adopted the balancing approach

259 While there is a world-wide decline of views of concentration as the greater evil of competition law, small economies’ competition policy may be bolder in accepting risks of greater concentration. The Israeli Tnuva decision insinuated this required difference, although it emphasized the low barriers to entry into the relevant market, which might have been sufficient reason to allow the merger regardless of the requirements of scale economies. Tnuva, supra, note 143.
Table 7.2 clearly indicates that the size of a jurisdiction is positively correlated to the requirements for cognizable efficiencies. As the effect of proof requirements on the practical ability to prove efficiencies is recognized, small economies which have a stronger incentive to attempt to strike the optimal balance between the merger's benefits and detriments are willing to exercise more leniency towards efficiencies claims. One example involves the balancing formula. A consumer surplus standard imposes a greater burden on an efficiency defense than a total welfare standard in two respects. The first is that only reductions in variable costs count. The second is that the percentage reduction in marginal cost resulting from efficiencies must be greater than the percentage increase in the price-cost margin caused by the increased market power.\textsuperscript{260} Accordingly, consumer welfare requires that efficiency gains be so substantial as to ensure that the merger will not result in a wealth transfer. Many small economies have thus opted for the lower total welfare standard, while most large ones adopt the consumer welfare standard. A similar tendency can be detected with regard to other requirements for cognizable efficiencies.

Still, in a surprisingly small number of cases involving mergers in jurisdictions employing the balancing approach has an enforcement decision explicitly turned on the efficiency-enhancing attributes of the transaction in question.\textsuperscript{261} Several reasons might explain this phenomenon.\textsuperscript{262}

First, as elaborated below, the burden on the parties is usually a difficult one. The merging parties must be prepared to articulate in detail the nature and size of the expected efficiencies, and usually bear the burden of proving that achieving the efficiencies is probable and not reasonably attainable by less anti-competitive means. More often than not, parties to a merger do not reach such a detailed level of analysis in advance of their agreement, if only because it is risky to exchange during negotiations the amount of proprietary information necessary to make such calculations. They are left with having to generate their efficiencies study in the course of the review by the competition agency, a situation that the authorities view with skepticism, often rightly so. Moreover the verification problems faced by competition authorities and the fact that the merging

\textsuperscript{260} Boulton, \textit{supra}, note 41, at p. 354.
\textsuperscript{261} Background Note by the Secretariat, OECD Roundtable, \textit{supra}, note 86.
\textsuperscript{262} This section builds, mainly, on Note, \textit{ibid}. 
parties have incentives to overstate their claims often leads to limited credibility of efficiency claims in the eyes of the authorities.263

Second, the defense is relevant only in the case where a merger is found to be anti-competitive. Parties are understandably reluctant to admit that their merger is anti-competitive and to base their entire defense on efficiencies. Thus, when they make an efficiencies defense it is in combination with a defense on competitive effects. However, an efficiencies defense can be inconsistent with a competition argument, particularly one involving ease of entry. It is difficult to argue, on the one hand, that entry into the relevant market is easy, and on the other, that the claimed efficiencies cannot be achieved by internal expansion or an alternative merger.

Thirdly, from the perspective of the competition agency, the trade-off analysis is difficult and imprecise. Practically, the efficiencies will have to comfortably exceed the agency's estimates of the merger's anti-competitive effects.

Fourth, the usual short period within which decisions on mergers must be made and the substantial burden of proof can preclude arguments by the merging parties of efficiencies, which is a time consuming exercise.

The paucity of decisions approving mergers on efficiency grounds does not, however, necessarily mean that significant numbers of such beneficial mergers are being prevented. First, it is widely recognized that the safe harbors employed by most competition authorities encompass many efficiency-enhancing mergers. Second, many mergers that fall outside concentration safe harbors -- probably a substantial majority -- are ultimately adjudged not to be anti-competitive and are approved without the need to consider their efficiency benefits. Third, competition agencies are increasingly willing to employ innovative forms of relief, such as partial divestiture or technology licensing, that permit the underlying transaction to go forward, thereby achieving most or all of the efficiency gains. Finally, it is probably the case that efficiencies are an undisclosed factor, if not necessarily the deciding one, in some agency decisions approving mergers. Competition agencies may be reluctant to acknowledge that fact publicly, however, given the practical difficulties in applying the defense. In this regard the agencies face a

263 Kattan, supra, note 189.
challenge in providing sufficient information about their standards to the business community so that efficiency-enhancing mergers will not be unnecessarily discouraged.

The problem of verifying efficiencies can partly be overcome by several methods. Post-merger monitoring, where possible, may help reduce information asymmetries.\textsuperscript{264} While this suggestion has some theoretical appeal, there are significant hurdles to its practical implementation such as ex post surveillance in which efficiency milestones could be defined and verified and post factum divestiture. Another suggestion is to rank efficiency claims on the basis of their credibility. Proposed efficiencies would be weighed by the probability that it will occur (expected value). Several factors which have been suggested as affecting the credibility of such claims include the source of the claimed gain, the market circumstances and the type of evidence provided. For example, efficiencies arising from the exploitation of synergies or complementarities between the merging firms have been argued to be most persuasive.\textsuperscript{265} Similarly, efficiency claims resulting from increased capacity utilization are particularly credible in declining markets.\textsuperscript{266}

It is noteworthy that many small economies also adopt a flexible administrative procedure that enables market participants contemplating a merger to consult with the competition authorities before going forward with formal proceedings of authorization or notification. In Australia, for example, a clear custom has grown over time involving pre-merger consultations between parties to a proposed merger and the ACCC. It is an informal procedure the aim of which is to verify, on a very preliminary level, whether the merger is likely to pose competition policy issues. While the competition authority reserves its right to change its mind and challenge a merger which did not seem likely to create anti-competitive concerns or to drop an investigation which seemed to be justified

\textsuperscript{264} Brodley proposed a form of "procedural innovation" for enforcement agencies which reduces some of the problems involved in proving efficiencies in the pre-merger stage. The proposed procedure involves a two-stage efficiency argument testing procedure. In the first, ex ante stage of the procedure the competition agency would screen transactions to determine whether they are reasonably capable to create substantial efficiencies. In the second, ex post stage the agency would conduct an after-the-fact audit to determine if efficiencies in fact have been achieved. When ex post relief is not feasible, because, for example, subsequent relief is impractical, then the efficiency defense should be considered. Joseph F. Brodley, "Proof of Efficiencies in Mergers and Joint Ventures" (1996) 64 Antitrust L.J. 575.

\textsuperscript{265} T. Dayek and J. Langerfeld, "Efficiencies in U.S. Merger Analysis" (1992) International Merger Law: Events and Commentary no. 23 (September 1992)

\textsuperscript{266} Kattan, supra, note 189.
by the legal standards, it is usually the case that it will not proceed against a merger to which it has so advised the parties, and it will not reopen the issue for further evaluation except in exceptional circumstances. Similarly, Canada has adopted a flexible consultations procedure.

Such pre-merger consultation procedures, while beneficial in any sized economy, have greater significance in a small economy, given that the issues involved in balancing between efficiencies and anti-competitive conduct are often difficult to evaluate by market participants. Once the analysis goes beyond structural elements and evaluates the specific implications of each proposed merger, such proceedings can give the parties a general sense of what considerations are likely to be taken into account in evaluating their merger. Such a procedure enables parties to abandon a proposed merger without spending too many resources on its evaluation, but at the same time go forward with merger proposals that although they may raise anti-competitive concerns may well enhance efficiency.

An interesting dilemma that arises more sharply in small economies than in large ones involves the policy towards mergers that create efficiencies while increasing the market power of the merging parties but do not increase prices significantly. This can be the situation where oligopolistic or monopolistic conditions are already present and prices are already at high levels. To illustrate, if the merging firms were engaged in the pre-merger situation in tacit collusion which was unreachable by competition law enforcement, a supra-competitive price was charged even before the merger. In such a case, permitting a sizable merger may increase long-run production efficiency, if oligopolistic interdependence reduced the incentives of firms to attain efficient sizes by internal growth. Thus, when competition fails—because markets are so small in relation to minimum efficient size that tight oligopoly is inevitable—permitting still higher seller

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267 Australian Merger Guidelines, supra, note 47, Section E.
269 See Chapter 6 supra.
concentration levels to develop can lead to more efficiency. Further concentration in such situations provides a second-best solution to the scale economies problem.

On the other hand, such mergers strengthen respect for interdependence, making specialization-increasing and competitive expansion moves all the more unlikely or dampening those competitive pressures which would have stimulated independent efficiency-seeking behavior. If current prices reflect oligopolistic coordination, competition authorities run the risk of falling into the Cellophane trap in approving a proposed merger. That is, existing prices charged by the firms may already reflect the exercise of market power. While the merger in such situations may not make matters worse in terms of price, it may nevertheless entrench existing market structure. In such situations the existing or projected post-merger prices ought to be compared with those which likely to prevail under more competitive market structures that may likely arise, in the foreseeable future, if the merger is blocked.

7.6 Market Regulation of Mergers

The third approach, in which the competition authorities play no direct role, leaves the regulation of mergers to the market. Until recently, many small jurisdictions have adopted the market regulation approach. For example, the Finnish competition law incorporated a merger review policy only in 1998. The Netherlands adopted merger

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270 Scherer and Ross, supra, note 23, p. 388; Report of the Israeli Commission, supra, note 170 (It is better to approve an efficiency-enhancing merger than to prevent it and bring about cooperative conduct of inefficient firms, p. 13). The Canadian merger guidelines can be interpreted as recognizing this consideration. The guidelines require that “the merging parties would likely be able to exercise a greater degree of market power than if the merger did not proceed” or that it create “increased scope for interdependent behavior in the market. In assessing substantiality, the Bureau evaluates “the likely magnitude, scope and duration of any price increase that is anticipated to arise as a result of a merger.” Canadian Merger Enforcement Guidelines, supra, note 121, Section 2.1. See also Imperial Oil, supra, note 153 (The Competition Tribunal observed that “the focus of attention in any merger case (are): Possible emergence of a dominant firm; (and) enhanced ability to tacit collusion” p. 54). Similarly, the Australian ACCC interprets increase in market power as a reasonable likelihood that prices in the relevant market will be maintained at a significantly greater level than they would in the absence of the merger or where competitive outcomes will be distorted. Australian Merger Guidelines, supra, note 47, Section 5.18.

271 See Khemani, supra, note 4.

272 Named after the U.S. case of Du Pont de Nemours and Co., 351 U.S. 377 (1956) which involved a cellophane manufacturer.

273 Finland’s Act on Restrictions on Competition (480/92). The provisions concerning merger control have only been recently incorporated into the Competition Act and they entered into force on October 1st 1998.
review only in 1997, and the act entered into force on January 1st 1998.274 Israel adopted merger review in 1988 and Canada revised its merger policy to have significant impact on market structures in 1986. Denmark still has no merger control, although it adopted a mandatory system for notification, the main purpose of which is to enable the competition authority to generally monitor developments in the market.

The adoption of the market regulation approach was based on several assumptions, most importantly, that the market is a better regulator than the competition authorities, and that most of the effects of concentrated market structures on competition can effectively be dealt with other policy measures such as the prevention of abuse of monopoly power and of explicit collusion. These assumptions were premised on the inadequacy of the absolute value approach in regulating effectively mergers in small economies. Such approach created a great number of false positives in small economies and that the thresholds or rules of thumb adopted in large economies were not appropriate to deal with concentration levels in small economies. At the same time, the unsettled nature of oligopolistic theory and the fact that small economies did not have the resources to invest in creating a better competition policy that would balance competing considerations did not allow small economies to adopt a balancing approach. Accordingly, until recently small economies actually faced two viable options: Adoption or rejection of the absolute value approach. Many small economies opted for the default option: to leave merger control to the market’s invisible hand.

The market regulation approach may produce more efficient results in a small economy than the absolute value approach. Yet it creates high costs and is inefficient compared to the balancing approach, since it does not differentiate between mergers that are motivated by realizing efficiencies and those motivated by increases in market power.

7.7 International Dimensions of Merger Analysis

274 The Dutch Competition Act of May 22nd 1997.
Lowered national barriers to international trade create competition policy issues that go well beyond national frontiers. While in the past competition law issues were largely contained within national borders, justifying doctrines that are based on the assumption that the law stops at a nation’s shore, today’s business is increasingly global. One of the most fascinating and complicated issues created by increased levels of world trade involves the regulation of mergers with extra-territorial effects ("extra-territorial mergers"). Firms in one country may engage in a merger that imposes costs or benefits on other jurisdictions. Beyond enforcement and jurisdictional power issues, which strive to get in grips with questions such as which jurisdiction should have the primary power to decide the validity of such mergers, substantial questions arise, as to how the effects of these mergers on different jurisdictions should be evaluated and taken into account in merger review.

Small economic size exacerbates the importance of these issues. The large proportion of foreign-produced products that are traded in a small economy and the lack of domestic market forces that can effectively regulate foreign importers, often imply that mergers between dominant foreign importers will have strong anti-competitive effects on small jurisdictions with which they trade without significant offsetting efficiencies. This section examines the legal tools available for small economies to combat extra-territorial mergers that affect them significantly. Given that many of the considerations involved in the implementation of such merger control are political in nature rather than purely economic, many legal solutions are limited by the practical ability of small economies to apply them in practice. As will be argued, multinational agreements or national competition policies that require large economies to take into account the global effects of mergers are thus much more important for small economies.

275 For an overview of several high profile merger cases that have significant extra-territorial effects see Richard P. Whish and Diane P. Wood, “Merger Cases in the Real World: A Study of Control Procedures” (Paris, OECD, 1994).
276 See, for example, the U.S. case of American Banana Co. v. United Fruit Co., 213 U.S. 347 (1909).
277 Campbell and Trebilcock, supra, note 162, p. 89.
278 See Chapter 1 supra.
than large ones, and provide the main solution for small economies’ concern for increases in the market power of foreign firms trading or affecting trade within their borders.\textsuperscript{279}

7.7.1 Types of Mergers with Extra-Territorial Effects

Extra-territorial mergers can be divided into four main types in accordance with their welfare effects. The first type of mergers reduces the welfare of both their home jurisdiction\textsuperscript{280} and other jurisdictions in which they trade. To illustrate, assume that two firms holding a dominant position in all of the markets in which they operate merge and that the merger does not achieve significant cost reductions. The second type of merger enhances or has no negative effect on the welfare of all jurisdictions in which the merging parties trade. This can be the case where the merging firms face strong competition from other firms in all the markets in which they trade. The third type of merger creates mixed effects: The proposed merger has positive or neutral welfare effects on the home jurisdiction, and negative effects in all or some foreign jurisdictions. The fourth type of extra-territorial merger creates opposite mixed effects: It creates negative welfare effects in the home jurisdiction and positive effects in foreign jurisdictions. This may be the case where high trade barriers in the home jurisdiction prevent the entry of competing foreign producers that compete effectively with the merging parties in other markets. It may also be a result of a market situation where there is only one importer into the small jurisdiction and the merger will increase the productive efficiency of this supplier, so that allocative efficiency might accrue is production costs are reduced.

The first two types of mergers are easy cases. The decision of the home jurisdiction, assuming merger control is interpreted and applied in a similar manner to that of a foreign jurisdiction, coincides with the interests of the foreign jurisdiction. The difficult cases arise in the third and fourth type of extra-territorial mergers, as different

\textsuperscript{279} An interesting example of a merger between two foreign firms that affected trade within another market, but did not trade in that market involves the merger of Union Pacific Railroad and Southern Pacific Railroad in the U.S. The merger of the two railroad companies, that had substantial market power over the shipment of goods up to the Mexican border, affected significantly the transportation price of goods produced in North America that were sold in Mexico, although they did not trade within the Mexican borders. The U.S. antitrust authorities approved the merger, although it had significant negative welfare effects on Mexico.

\textsuperscript{280} Similar types of mergers arise where the merging parties come from different home markets. The analysis is then only slightly more complicated, as the effects of the merger in all home markets may differ.
jurisdictions may reach conflicting decisions and have divergent interests. For example, if the firms of one jurisdiction have monopoly power in world markets, that jurisdiction and its firms may have strong incentives to promote anti-competitive activity, thereby increasing national wealth at the expense of foreigners.281

To concretize the following discussion, two recent examples of mergers which fall into the third category are provided. The first involves the merger of the U.S. McDonald Douglas and Boeing companies and the second involves the merger of the EU Unilever and Nestle companies. In both cases mergers of firms located in large economies had significant extra territorial effects on the welfare of consumers located in other jurisdictions. The Boeing-McDonald Douglass case involved the proposed merger of two U.S. firms which operated in the world-wide market for commercial aircraft manufacture. The creation of the world’s largest aerospace company by the merging of two out of the three world-wide commercial aircraft manufacturers282 caused different concerns and represented different conflicting interests in the U.S. and the EU jurisdictions. After the U.S. authorities cleared the merger, EU officials expressed the concern that while the merger’s benefit to the U.S. economy exceeded the consumer costs to the U.S., were U.S. authorities to count the world-wide costs of competitive harm, the equation would have balanced in favor of prohibiting the merger.283 The EU, in taking into account U.S. interests, settled for placing certain behavioral restrictions upon the merging parties rather than structural ones.

The second example involves the Unilever-Nestle merger of two large EU food producers. The merger was approved by the EU Merger Task Force, since it did not create a dominant position in the EU market. Its effects on some small economies with which the merging entities traded were, nonetheless, significant. For example, the merger lessened substantially competition in the Israeli market given that it was preceded by the

281 Some competition policies explicitly recognize an exception to anti-competitive conduct in the case of export cartels.
282 The merger increased Boeing’s market share from 64% to 70%; it reduced the number of Boeing’s competitors in the market to one (Airbus); it increased Boeing’s customer base of the fleet-in-service from 60% to 84%; it increased Boeing’s productive capacity, particularly in relation to the available work force. It was concluded by the EC Commission that the post-merger merging parties’ broader product-range, financial resources and its access to publicly funded R&D and in its intellectual property portfolio and higher capacity with consequent shorter delivery times, in combination, would significantly increase its dominant position. Yves and Liedekerke, supra, note 123.
283 Ibid.
merging of the Israeli firm of Strauss with Unilever and the merger of the Israeli firm of Osem with Nestle which took place shortly before the European merger was approved. Osem and Strauss are two main competitors in the Israeli food market.

7.7.2 Alternative Approaches to Regulating Extra-territorial Mergers

Four major approaches to regulating of extra-territorial mergers can be identified. This section analyzes the treatment of extra-territorial mergers with mixed effects under each approach.

1st. The Unilateral Enforcement Action approach

The unilateral enforcement action approach enables each jurisdiction to apply its own competition policy in regulating mergers and other offshore conduct with domestic anti-competitive effects, even if the conduct occurred outside the borders of the jurisdiction. It presumes that extra-territorial mergers that have significant effects on the domestic market can be redressed at the national level through national competition policy. As the concept of outbound extraterritoriality is essential to this approach, nations which adopt this approach empower domestic competition authorities to regulate foreign activities that have significant effect on the domestic market.

The unilateral approach is currently the predominant one in merger analysis and in existing bilateral and multilateral agreements. The U.S., for example, has taken a strong stance with regard to the extra-territorial reach of its competition laws. While the 1988 DOJ International Guidelines disclaimed outbound jurisdiction by limiting the Department’s concerns to “adverse effects on competition that would harm consumers by


285 The U.S. has adopted the so-called “effects doctrine.” U.S. v. Nippon Paper Indus. Co. 944 F. Supp. 55; The European Union adopted a version of the effects doctrine in the Wood Pulp case, joined cases 89, 104, 114, 116, 117, 125-29/85, Ahlstrom Osakeyhtiio v. Commission, 1988 ECR 5193. The Israeli Director recognized the effects doctrine in Re James Richardson (unpublished) and in Re Merger of Truva, Osem and Nestle (unpublished) (Recognizing power to regulate mergers of foreign firms with local subsidiaries). He may go further to claim power to regulate mergers of foreign firms without local subsidiaries in his decision in the BMI-Orbond Merger (unpublished and not yet released).
reducing output or raising prices", in 1993 the DOJ announced that the U.S. antitrust laws apply "to U.S. and foreign commerce" including harm incurred by U.S. exporters by foreign firms acting to close their home markets and thus exclude U.S. exports. These competition policy remedies are additional to the unilateral trade remedies.

While extra-territorial reach may be wide-scope with regard to the actions of foreign firms that harm domestic consumers and producers, it is generally extremely limited with regard to the regulation of the activities of domestic firms that have anti-competitive effects on foreign jurisdictions. Outbound extra-territoriality is rarely complemented by a national treatment principle for the nation's exporters and investors abroad, that mandates domestic authorities to regulate nationals that harm foreigners on foreign soil. Moreover, most jurisdictions' evaluation of a merger is limited to the welfare effects of a merger on domestic consumers and/or producers, and disregards the effects of a merger on foreign consumers and producers.

Even if jurisdictions were to adopt a national treatment rule, the standards or goals of merger review may still produce outcomes that do not coincide with the interests of foreign economies. For example, a merger policy that adopts an absolute value of competition approach may produce totally different results than a policy that adopts a balancing approach. Alternatively, nations may achieve adverse outcomes even if they apply similar principles due to disagreements on underlying facts, or different interpretations of common standards. Unilateral application of national law thus usually

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288 Section 301 of the U.S. Trade Act 1974 is a means to open markets abroad where a foreign government unreasonably tolerates systematic anti-competitive market-closing practices. In such cases, the Act empowers the relevant U.S. authorities to retaliate. See also the recent report of the U.S. Department of Justice Advisory Committee on International Competition Policy (March 15, 2000).
289 See, for example, the U.S. Foreign Trade Antitrust Improvements Act 1982 which states clearly that the Sherman Act does not apply to exports not affecting U.S. citizens.
290 See, for example, the recent Israeli case of Orbot and Optrotec (unpublished). The firms had minimal effect on the Israeli market, but had the potential to affect consumers in the EC and the U.S.
does not solve issues of extra-territorial mergers with mixed effects, as some recent cases illustrate. 291

To address the problem of a limited national vision, national law enforcement should take into account global impacts on consumers and producers. Yet taking account of the effects of a merger on other jurisdictions in national courts is very problematic, for several reasons. First, the home jurisdiction does not have the tools or the information necessary in order to evaluate the effects of a merger on all the jurisdictions in which the merging entity trades or will potentially trade in the near future. Second, even if it were to include all these effects there are no clear guidelines as to how to quantify and measure them. Possible standards may include comparison of welfare effects on a per dollar basis, or of the proportional impact of the merger on total welfare in each jurisdiction.

The problem of limited national vision affects small economies more significantly than large ones. As elaborated in Chapter One above, a large percentage of products produced in small economies are either imported from other jurisdictions or are produced by subsidiaries of firms located in foreign jurisdictions, mostly large ones. This fact, combined with the limited regulatory pressure that is exerted on foreign traders by domestic producers located in a small economy, implies that mergers of dominant foreign firms that trade in a small economy may well reduce competition significantly in the small economy without significant offsetting efficiencies. Even if the increase in market power is accompanied by increased efficiencies, these will rarely be realized by the small economy, as in many cases the production facilities are located outside its borders. 292

Yet small economies usually cannot prevent a merger with anti-competitive effects from occurring by unilateral action only, as they face severe challenges to

291 Fox, supra, note 284, at p. 3. The uranium cartel is a telling example. The U.S. lawsuits against alleged cartelists in France, Canada, the United Kingdom, South Africa and elsewhere created a heated debate with some U.S. trading partners, some of whom had supported plans within their nations for the orderly production and marketing of uranium after the U.S. first stimulated production and then embargoed uranium. See James R. Atwood and Kingman Brewster, Antitrust and American Business Abroad (2nd ed., 1981) sec. 6.16.

292 An exception may arise where a small economy’s mergers of domestic firms increase domestic welfare more than foreign firms’ mergers decrease it. This can be the case where imports are very competitive and the small economy has a significant competitive advantage in world markets over foreign rivals in certain businesses. In such a case the small economy may have incentives to limit the scope of extra-territorial merger control.
First, small economies can rarely make a credible threat to prohibit a merger of foreign firms. Given that trade in the small economy is usually only a small part of the foreign firm’s total world operation, were the small jurisdiction to place significant restrictions on the merger the foreign firm would, most likely, choose to exit the small economy and trade only in other jurisdictions. The foreign firm will exit the small market if its loss of revenues from terminating its trade in the small economy and the possible increase in overall production costs if the firm faces scale economies over the whole range of production, are smaller than the increase of revenues it anticipates to achieve as a result of the proposed merger in other jurisdictions. Also, the negative welfare effects of the exit of the foreign firm from the small economy may well be greater than the negative welfare effects from the continued operation of the merged entity within its borders. Thus, a small economy can pose no credible threat to the merging entity by stating that it will prevent it from trading within its borders if it merged. It also has no incentive to do so. The foreign firm, acknowledging this effect, will not take into account, in its merging decision, the effect of its decision on the small economy. It will only consider the effects of the merger on its own profits in such a market.

In addition, political obstacles might also stand in the way of a small economy attempting to prevent a merger among foreign firms. If the effects of such a merger are positive in the home jurisdiction or in other jurisdictions (higher taxes, lower unemployment, lower production costs) the small economy might encounter political resistance to its policy, especially since foreign firms have an advantage in shaping public opinion in their home jurisdiction. This consideration is based on a presumption that the small economy’s size is positively correlated to its political power.

2nd. Bilateral Cooperation Agreements

A second approach to the regulation of extra-territorial mergers involves the adoption of bilateral cooperation agreements that strengthen cooperation between competition authorities. Bilateral agreements include a wide range of cooperation standards, ranging

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293 Accordingly, some small jurisdictions, such as Israel, have rejected the effects doctrine altogether. See Re Tnuva Of Hanegev v. Director of Competition Authority (not published, 1999)
from positive comity principles to the identification of joint objectives and principles. Most existing cooperation agreements adopt the positive comity approach.

Positive comity agreements maintain full national autonomy in applying domestic competition policy laws while ensuring access of foreigners to the domestic enforcement system. Pursuant to this principle, foreign nations and persons adversely affected by anti-competitive activities occurring in the territory of another party and contrary to the competition laws of the other party, may request it to investigate and, if warranted, to remedy these activities in accordance with its competition rules. Positive comity is met when each nation implements its own national law, as long as it is applied in a credible, nondiscriminatory, clear and understandable way.

Existing bilateral agreements between the EU and the U.S. and the EU and Canada cover anti-competitive activities that occur within the territory of one party that, in addition to violating that party’s competition laws, adversely affect important interests of the other party. The latter party may then request the other party to initiate appropriate enforcement activities. The requested party is then obliged to consult with the requesting party and to accord “sympathetic consideration” to the request in deciding whether or not to initiate, or expand, enforcement activities with respect to the anti-competitive activities identified in the request, within the framework of its domestic laws.

While positive comity principles create vehicles to root out a common evil where there is a preexisting disposition to cooperate and to overcome the problem of non-enforcement or discriminatory enforcement by foreign jurisdictions, they have limited effect where the merger policy principles adopted by the cooperating jurisdictions differ significantly from one another or such merger principles do not take into account the effects of the proposed merger on foreign jurisdictions. Positive comity thus does not reduce the concerns of small economies with regard to extra-territorial mergers with negative effects on their domestic markets.

C. Harmonization of competition laws
In recent years several scholars have suggested the harmonization of competition policies. Some suggest similar laws while others suggest a plurilateral set of minimum competition rules, with binding positive comity and an effective dispute settlement instrument. Beyond issues of inconsistent application and interpretation of harmonized competition laws, unless laws are harmonized in a manner that mandates national courts to take into account the impact of a merger beyond their jurisdictional borders, the problems of mixed or negative extra-territorial effects of mergers would not be solved.

D. Multinational Merger Control
A fourth option involves decision making on extra-territorial mergers by a supranational institution. National authorities yield their jurisdiction to a supranational institution vested with the final dispositive power over all mergers within its mandate. A more modest variant of this option is the creation of parallel domestic agency reviews with a super-national appeal or dispute resolution process in the event of divergent determinations. This approach may solve problems of non-enforcement or discriminatory enforcement as well as divergence in the standards and application of substantive law. However, in order to achieve a common solution to extra-territorial mergers countries would need to establish framework principles that provide discipline against nationalistic measures that keep enforcement at the national level and that fail to take into account the global effects of a proposed merger. Such a system would ensure that small economies’ interests are treated equally as other economies’ interests.

Many commentators have pointed out, however, that the problems involved in such merger control are insurmountable. It would be almost impossible to reach a consensus on unified antitrust principles, except at a very generalized level. A multilateral dispute resolution system would also have potentially adverse impact on domestic prosecutorial discretion, as nations would lose their sovereignty by relinquishing decision making to unknown and perhaps untrusted bureaucrats.

7.7.3 Discussion: Options for Small Economies to Combat Extra-Territorial Mergers with Negative Domestic Welfare Effects

Small economies are very limited in their ability to prevent foreign extra-territorial mergers that negatively affect their domestic markets. Unilateral action is problematic, and most of the bilateral or multilateral agreements that exist today are based on the recognition of unilateral enforcement of competition policies that generally do not take into account the effects of a merger beyond national borders. It is not visualized that these approaches will change significantly in the near future to accommodate considerations involving the global effects of mergers.

Small economies should thus strive to achieve one of the following three options. The first is the accommodation of national treatment and global effect principles into the national laws of their main trading partners. The second is the adoption of a multilateral dispute resolution system that would take into account the global effects of a merger. The limited economic and political power of most small economies may, however, reduce their influence on the decision mechanisms of larger economies with regard to the adoption of such policy options. It should also be noted that while these two options would reduce the approval of extra-territorial mergers with negative domestic welfare effects, they would not prevent the approval of all mergers that have anti-competitive effects on a small jurisdiction. It may well be the case that a merger has positive effects in most of the jurisdictions in which it operates, in which case it will most likely be approved.

The third alternative a small economy faces is political: To join forces with other jurisdictions in order to create a credible threat to a merger that reduces welfare in all of the cooperating economies. If a sufficient number of jurisdictions join forces in order to prevent such a merger, then this might create strong enough economic incentives for firms to abandon attempts to merge. Several conditions have to be met in order for such an action to pose a credible threat. First, the threat of limited access to such economies should have significant effect on the merged entities’ profitability in order to offset the gains from the proposed merger in other jurisdictions. Second, all jurisdictions must be prepared to block the entry of the merged entity into their markets in the event that the
merger goes through. The fact that the welfare effects on one jurisdiction are not interrelated to the welfare effects on another eliminates some of the coordination problems that are present in other cooperative agreements. However, political pressures from the merging entity’s jurisdiction on some of the cooperating jurisdictions may reduce the possibility that they will act upon their threat.

The most plausible way for small economies to treat extra-territorial mergers in the foreseeable future is thus to take changes in the market structures of their trading partners as a given, and to attempt to regulate the merged entities with conduct control tools that relate to the actions of these foreign firms within their domestic markets, although such tools are, generally, more costly and less effective than structural measures. This implies that regulatory measures play a more significant role in the competition policy of small economies than large ones.

7.8 Conclusions: Optimal Merger Policy for Small Economies
Merger policy is an important tool for regulating anti-competitive conduct by preventing the creation of market structures that are prone to increase the potential for such conduct. The limited efficiency of conduct-related measures enhances the need for optimal merger control. As argued throughout this chapter, the small size of an economy increases such need even further. At the same time, the special characteristics of small economies create difficult problems in the formulation of suitable and efficient merger policy. As many industries are characterized by highly concentrated market structures justified by scale and scope economies in which further cost reductions can be achieved through merger, merger policy should be at the same time accommodating to efficiencies considerations and wary of increased concentrations that are not justified by resource savings.

In theory, an optimal merger policy should thus balance between a proposed merger’s anti-competitive effects and its efficiency gains. Such a policy may be, however, very difficult and costly to apply in practice as it requires competition courts and agencies, as well as the merging parties, to verify and quantify the anti-competitive effects and the efficiencies involved in each specific merger. Strict assumptions and high burdens
of proof may well reduce efficiency consideration to a theoretical possibility. As was argued above, presumptions of anti-competitive effects based on high levels of concentration which almost always produce strong inclinations towards condemnation of merger in a concentrated markets combined with the often insurmountable burden of efficiency defense, cause the problems of scale economies in small markets to be systematically under-treated. This amounts, in practice, to a structuralist, absolute-value of competition approach which was shown to be inadequate for small economies.

One option is to follow in the footsteps of jurisdictions such as New Zealand and Australia and to lower the burdens of proof and the conditions for cognizable efficiencies, as well as to place lower evidentiary weight on market structure considerations. The benefits of such an approach include the approval of mergers that are likely to achieve efficiencies. The danger is that speculative efficiencies may serve as a basis for approving mergers that may have strong anti-competitive effects. The answer may lie in the adoption of a sliding-scale approach where as the danger of an increase in the exercise of market power rises, the burden of proof of efficiencies rises accordingly.

An important consideration that must be taken into account when the balancing approach is adopted, especially in a small market setting, is the existing level of market power and the increase in such power that is likely to arise from the merger. Given that many industries are already concentrated, mergers should not be evaluated against a benchmark of theoretically competitive conditions, but rather against the rational market structure options that exist in the specific market setting.

Another option involves the adoption of broad safe harbors and high thresholds for illegality. This option may be used to supplement the balancing approach or as a basis for an absolute value approach. It is widely adopted by many small economies. However, while it reduces the costs of having to trade-off the costs and gains from a merger in each specific case, it is problematic since it may create too many false-positives.

How significant is the effect of merger control on small economies in practice? Statistics indicate that that the number of mergers actually contested in small economies is very small. In Israel less than one percent of all mergers are rejected. From the date the provision was enacted in 1988 until the middle of 1998, eight hundred and fifty mergers
were caught by the Act. Seven mergers were formally rejected and approximately 10% were conditioned. In Canada, as well, most mergers are not challenged. Of the 1,003 mergers that have been notified to the Canadian Bureau during the period between 1988-1994 only 4 have been rejected and a few others required minor changes. Under the current thresholds the Australian competition authorities consider about 120-150 merger matters each year and may initially object to only 5-10 of those. This number includes initial efforts to ascertain whether a merger does or does not exceed a threshold, so that the reported number of matters the authority looks at overstates the number of matters that are likely to require detailed competition assessment. For example, in the first half of 1996 the Commission looked at 62 mergers, only 21 of which exceeded the threshold.

However, these figures should be qualified by the fact that many attempted mergers are abandoned if pre-rulings of competition authorities or if outside legal advice indicate the possibility of the merger being rejected. It is thus of crucial importance that small economies take into account the effects of small size when shaping their merger policies. As emphasized throughout this chapter, optimal regulation of merger activity is especially important in light of the lowering of trade barriers which create competitive pressures to adapt to new market conditions. Merger policy should thus recognize the valuable role mergers play in allowing industries to adapt to changing circumstances and the costs of inhibiting such transactions. At the same time, increased openness to trade creates new issues with regard to extra-territorial mergers with negative effects on small economies that are just beginning to be addressed in world forums.

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297 In Canada about 98% of reported mergers do not raise competition issues under the Competition Act. Sanderson, supra, note 4. In the United States few mergers are challenged by the authorities. Dayek and Langefeld note that about 96% of reported mergers in the U.S. in 1991 did not raise anti-competitive concerns. Dayek and Langefeld, supra, note 265.
298 Director of Research and Investigation, 1994 Annual Report (1995) 15. Two merger decisions have been rendered by the Tribunal to Date: Director v. Southam Inc 43 C.P.R. 3d 161 (1992) and Hillsdown, supra, note 124.
299 ACCC web page at http://accc.gov.au
Chapter 8: Conclusions

The goal of this thesis has been to determine whether the size of an economy matters for optimal competition policy. As this thesis has strongly argued, the answer is unqualifiedly affirmative. The first section provides a brief reprise of the major policy prescriptions for small economies. It also points to several other elements that complement substantive competition law, such as efficient institutions and education in the goals of competition policy. The following sections analyze several practical and theoretical implications of this thesis. Section two analyzes the incentives for and the implications of the adoption of the laws of large jurisdictions by small ones. Section three focuses on the implications of this thesis for global or regional harmonization of competition laws. The two issues are related given the ability of large jurisdictions to impress their will (and competition laws) on smaller economies. Section four analyzes the relevance of the findings of this research to small markets within large jurisdictions.

8.1 The Size of an Economy Matters for Optimal Competition Policy

This thesis has strongly argued that the size of an economy affects optimal competition policy—from rules of thumb of market shares as indicators of market power to the choice of policy goals. The main factor which creates the need to tailor competition law to economic size is that competition laws generally consist of “fit all” formulations that are designed to best achieve the goals of the law overall in each category of cases to which they apply (mergers, cartels, dominant position, etc.), while recognizing that some false positives and false negatives occur at the margin. The marginal cases of large economies constitute, however, the mainstream cases for small economies, as small size magnifies the occurrence of highly concentrated markets protected by entry barriers. This requires small economies to change the focus of their competition laws in order to regulate such markets efficiently. Accordingly, even if all economies reach a general consensus that the basic objective of competition policy is to protect and preserve competition as the most appropriate
means of ensuring the efficient allocation of resources, the natural conditions of the market –mainly the degree of concentration and the height of entry barriers- affect the optimal rules that regulate the business conduct of market players. Whether firms compete is very much a matter of the structure of the markets in which they operate, and structure is influenced, primarily, by the natural conditions of the market.

The thread that connects together all of the strands of this thesis is the greater need to recognize the inevitability of concentrated market structures protected by high entry barriers in many markets. Where openness to trade does not succeed in creating competitiveness, small economies should take as a baseline the concentrated nature of their markets and strive to reduce the occurrence of anti-competitive conduct of firms operating in such an economic environment. This necessitates a more refined trade-off between productive efficiency, on the one hand, and allocative and dynamic efficiency, on the other. The basic dilemma for competition policy is how to reconcile the production constraints on the number of sellers with the assumed undesirability of certain types of conduct created by high degrees of concentration for allocative and dynamic efficiency. Most of the effects of small size involve small but important changes to existing doctrines, regulatory powers or modes of enforcement that have the potential to increase welfare by reducing the occurrence or the effects of anti-competitive practices that are usually only marginal in large economies. Some changes, nonetheless, involve the adoption of regulatory methods which are absent from large economies. Below I present a brief reprise of the main policy prescriptions for small economies.

The highly concentrated nature of many markets, which is often justified by scale and scope economies, limits the attractiveness of structural remedies. This also has implications for merger policy. A stringent merger policy might inhibit or preclude a broad spectrum of useful market structures which may increase efficiency,

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2 This has been acknowledged, at least in principle, by many small economies. See, for example, the recent Israeli decision, lscur Sherutei Pladot Inc. v. the Director, Inc. Appeal 1/97 Competition Tribunal (11.12.1997). The Tribunal acknowledged the problematic nature of analogizing from U.S. case law: “The significant difference in size between the Israeli and U.S. market necessitates a difference of perspective and emphasis”. This consideration has led the Tribunal to state that “in the Israeli market higher entry barriers should be considered less significant.” lscur, p. 33. See also the New Zealand case of Fisher & Paykel Limited v. Commerce Commission [1990] 2 NZLR 731 (“Despite the common ancestry which both the New Zealand and Australian statutes derive from the United States antitrust statutes, caution has to be exhibited before adopting uncritically developments in law and economics from that country” at p. 756).
such as the merger of ownership of plants or firms of sub-optimal size which enables firms to achieve scale economies. Accordingly, presumptions of anti-competitive effects based on high levels of concentration, which almost always produce strong predispositions towards the condemnation of mergers in concentrated markets, combined with the often insurmountable burden of an efficiency defense, should be rejected and much more emphasis should be placed on efficiency considerations. At the same time, an excessively lenient merger policy might enable the creation of highly concentrated market structures which are not easily eroded by market forces and which reduce efficiency. Merger policy should thus be at the same time accommodating to efficiency considerations and wary of increased concentration that is not justified by resource savings or that may have long-term anti-competitive effects. To illustrate, a small economy should exhibit a strong concern towards the concentration of ownership of its conglomerates, without regard to competition-related issues in specific industries, as conglomerates are often the main challengers of incumbent monopolies, often controlled by other conglomerates.

The limited effectiveness of structural remedies and the sometimes limited self-correcting powers of a concentrated market increase the need in small economies for conduct regulation. Monopoly and oligopoly should be tolerated, as they are often necessary in order to achieve productive efficiency. Nonetheless, their conduct should be closely scrutinized in order to minimize the creation of artificial barriers to competition.

An important task of competition policy in small economies is the close regulation of monopolies, be they natural monopolies or not. Given the economic teachings which determine the incipiency of monopolies in a small market which are likely to give rise to welfare losses, and given the length of time it might take market forces to erode such monopoly power, a small economy might not be able to afford to leave the regulation of monopoly power to market forces alone. One method that might be employed by a small economy involves conduct regulation that does not require anti-competitive intent, under which high prices, restricted output, or other specified trading conditions constitute, in themselves, a cause for regulation. Such law focuses solely on the harm to consumers or to competitors. In so doing, the law creates safeguards from monopolistic activity while not condemning monopoly per se. Yet conduct regulation is a highly problematic tool in that it creates disincen
effects for firms to become monopolies and its efficacy is questionable and thus should not be lightly adopted. Nonetheless, it may be justified where natural monopolies are concerned. Another method is the adoption of legal presumptions as to the effect of certain types of conduct, such as a rebuttable presumption of anti-competitive effects of exclusionary conduct engaged in by a vertically integrated natural monopolist against its competitors. Small size also creates a need to regulate exclusionary conduct that is likely to lead to the creation of market power, in addition to exclusionary conduct that maintains or strengthens existing market power. In addition, the special characteristics of small economies require that certain types of exclusionary conduct be analyzed differently than in large economies. For example, price discrimination should be allowed where it is necessary for a firm to break down oligopolistic pricing.

Another important area of conduct regulation involves the regulation of oligopolies. The limited number of firms that can operate in a small market necessarily increases their interdependence and their interdependent conduct. Even in the absence of explicit restrictive agreements there is little room for effective domestic competition. In some cases conscious parallelism is all that is needed in order to facilitate interdependent conduct. Accordingly, the traditional prohibitions against collusion should be applied in a strict manner. Such a policy may help break down oligopolistic coordination and induce oligopolists to operate at higher levels of output and lower prices than they would have but for the legal consequences. Yet the limited effectiveness of the prohibitions against collusive conduct in regulating conscious parallelism or some cases of tacit collusion creates a strong need for the adoption of additional regulatory methods. One method that was suggested in this thesis is the introduction of a government-supported maverick into some oligopolistic industries. This novel method may be used to combat oligopoly pricing by creating rivalry among the few which eliminates most of the problems of other proposed solutions. As was shown, the maverick model possesses great potential to increase significantly allocative and even productive efficiency in oligopolistic markets. It was also suggested that small economies adopt a prohibition against facilitating practices that have no or minimal offsetting pro-competitive effects.

In addition, small size affects the accuracy of rules-of-thumb, such as indicators of market dominance based on market shares. In a small economy the
typical market share which will signify market dominance is lower than in a large
one, given the lower elasticity of supply due to the prevalence of scale economies and
oligopolistic interdependence. In other words, the smaller the market, the higher the
barriers to entry usually are (lower elasticity of supply), and therefore the lesser the
constraints that potential entry places upon a firm that attempts to raise price above
marginal cost, and the lower the market shares necessary in order to infer dominant
market power. Small size also increases the importance of adopting total or consumer
welfare as a stand-alone goal. Such a need arises from the high costs of protecting
inefficient producers for the sake of non-economic goals.

Substantive law, on which this thesis focused, is the basic tool for competition
policy. Nonetheless, several complementary elements have to be present in order to
create a welfare-enhancing competition policy in small economies. These elements
include competent and adequately empowered institutions as well as the creation of
incentives and opportunities for all classes of market players to be familiar with the
competition laws. Although such elements are beyond the scope of this thesis, several
observations are noted below.

The creation of competent institutions that apply competition policy is highly
important, as otherwise what has been gained by the creation of optimal competition
policy will be lost by misguided enforcement in practice. Many of the tasks that need
to be performed by a competition authority or a competition court in a small economy
require careful balancing of competing considerations. In addition, large sections of
the economy are likely to come under the scrutiny of the competition authority, given
high levels of concentration in many industries. This implies that a competent
competition authority and a competent competition court are not only necessary
elements in order to achieve the goals of competition policy, but also constitute a
good investment for a small economy. Reducing the extent of anti-competitive
conduct engaged in by dominant firms by setting the "rules of the game" correctly in
some exemplary cases and increasing levels of detection and enforcement are much
less costly than relying on market forces to correct market imperfections in small
economies. Moreover, the fact that many competition rules apply similarly across
different markets and that setting the rules correctly in one market creates positive
enforcement externalities for other markets reduces significantly the costs of
enforcement of competition policy. Enforcement is likely to be enhanced by the following policies:

1. Making best use of human capital by appointing experts in industrial organization and competition policy to the competition authority.¹

2. Creation of a specialized judicial body that is empowered to hear competition law cases and is comprised, *inter alia*, of economic experts. It is also important that an appellate court have a limited mandate to overrule economic issues decided by the tribunal.

3. Providing the competition authority with sufficient tools necessary to achieve its goals, such as investigatory powers and adequate resources.

Educational measures which are designed to educate the general public and the business community in the goals and the substantive regulatory elements of competition policy are also highly important. These measures are especially important where resources are limited, or where violations can easily be detected by market participants, such as consumers and competitors. It sets the ground work for understanding and appreciating the benefits associated with market regulation and it familiarizes market participants with the available tools to combat anti-competitive conduct. Canada and Israel serve as two examples of small jurisdictions which have sought to increase levels of awareness of their competition policies by educational and compliance-oriented measures. The educational measures adopted by these two jurisdictions include the following:

1. Educational programs sponsored by the competition agencies that strive to educate market participants in the basic principles of the law. The Israeli competition authority, for example, holds workshops for the executives of the top 120 firms every six months in order to update them on significant changes to the legal regime.

2. Compliance programs: Intra-firm educational programs, assisted by competition authorities. Managers and directors that can demonstrate that they have educated their employees in the legal implications of their conduct and have taken reasonable measures to avoid anti-competitive conduct will not be held personally liable for such conduct of their firms.

¹ The New Zealand High Court, for example, has provision for the appointment of non-judicial members. The Israeli Competition Tribunal is also comprised of some non-judicial members- usually an economist and a representative of consumer groups.
3. Grace periods that allow market participants to reform their past anti-competitive conduct and thereby avoid legal sanctions. Israeli firms were given a period of several months in which they were able to review their existing business arrangements, with the potential help of competition authority officials, and to remedy past anti-competitive conduct. Any conduct not remedied during this period was potentially subject to legal sanctions.
4. Wide publicity of suits brought against large market players and the imposition of severe sanctions.
5. Open lines for consumers and rivals to report alleged violations to the competition agency.
6. Transparency and dissemination of information through the publication of important decisions in official documents and through a well-organized web-page.
7. Enforcement can be also enhanced through private and collective rights of action. This creates strong private incentives for consumers and rival firms to be familiar with the law.

To conclude, given that the market’s invisible hand has limited disciplinary power in concentrated structures, a specifically tailored competition law has an important role to play by setting out clear rules of conduct and ensuring their effective application in practice. The costs involved in creating and applying an optimal competition policy in small economies constitute an investment with a potentially high social rate of return.

8.2 Adoption of Competition Laws of Large Jurisdictions

The main thesis of this research is that the size of the economy should influence the content of its competition law. This conclusion raises the question whether small economies should, as they commonly do, adopt the laws or rely on the case law of larger jurisdictions.

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5 This factor joins a long list of other factors that may affect the competition law of different jurisdictions, mainly culture, policy goals, and the economic environment.
6 The most widely adopted competition laws are Articles 85 and 86 of the EC’s Treaty of Rome 1957 and the main regulations issued by the European Commission. The following jurisdictions have adopted, in full or in part, EC competition laws: Italy, France, Luxemburg, Switzerland, Sweden, Finland, Malta, Jamaica, Ireland, Cyprus, Denmark, Germany, the Netherlands, Israel. Also, the EC has been able to influence the development of competition policy in Eastern Europe through trade agreements (Czech Republic, Hungary, the Slovak Republic, Poland)) in which the signatories have
Adoption of the competition law of a larger jurisdiction has many advantages, such as a ready basis for the law and a large body of comprehensive case law and commentary. In addition to these learning externalities, such adoption also generates network externalities that accrue to other jurisdictions utilizing the law.\textsuperscript{7} Network externalities are the increasing returns to users of a product as the number of users grows. As more decisions that apply the law to various factual settings begin to accumulate, legal certainty is increased. These network externalities are forward looking. They are especially important in the area of competition law, which is characterized by elastic and open-ended notions, where the courts or other regulators must give it meaning on a case-by-case basis. European Community and U.S. competition law, being the most widely used competition laws, thus have a value to other jurisdictions greater than their face value as judged by the clarity and comprehensibility of their provisions and current case law.\textsuperscript{8} Accordingly, adoption of the current competition law of a large economy will always confer an advantage on another economy. This is especially true given that some small economies cannot quickly generate the case law necessary in order to refine their own laws, since competition law necessarily relies on general concepts that cannot easily be specified precisely \textit{ex ante}. Adoption of another jurisdiction’s law also reduces the resources necessary to create a competition law tailored to the adopting jurisdiction’s special characteristics.

Another possible reason for the adoption of the laws of larger jurisdictions is herding behavior. If legislators are not certain what makes for optimal law, they may follow a popular trend of mimicking. The complexity of the law and the fragile balance that must be struck make information about optimal laws costly. Jurisdictions may find following others to be a convenient alternative to incurring these costs.

The adoption of the competition laws of larger jurisdictions is also sometimes predicated either on the existence of a hegemonic power of a large jurisdiction with the ability to impress its will on other smaller and weaker jurisdictions or willingness amongst smaller and weaker jurisdictions to cede substantial aspects of their domestic


\textsuperscript{8} \textit{Ibid.}
political sovereignty to supranational political institutions.\textsuperscript{9} This phenomena is especially pronounced in the EC. By requiring the adoption of an EC compatible competition law as a condition for gaining access to its markets,\textsuperscript{10} either through trade agreements or outright membership,\textsuperscript{11} the EC has been a driving force in the enactment of competition laws beyond its borders that are based on its model. In other words, the EC has used the desire of countries to gain access to its markets as leverage to get non-members to enact a competition law and adopt the EC model.\textsuperscript{12} As a result, many jurisdictions have adopted the EC model, although it might not be compatible with the special characteristics of their economies.

Accordingly, many small economies have adopted the statutes and regulations of large jurisdictions and refer to their case law for interpretation. Some small economies have gone further and adopted current law as well as future law of a large jurisdiction, blindly committing themselves to future changes and court decisions.\textsuperscript{13} This is not only politically problematic but also creates a host of practical problems, such as problems in the coherency of case law and the issue of retroactive relief when issues resolved by the importing economy’s court decisions are subsequently resolved differently by the other economy’s courts.\textsuperscript{14}

Adoption of the laws of larger and different jurisdictions thus has important pitfalls. As this thesis has demonstrated, the most important is that insufficient weight is given to the special characteristics of the small economy, which differ significantly from those of a large one. Although many economies of all sizes rely on the market as a method to regulate economic activity, where the conditions for the efficient operation of a market differ, competition law should take these differences into account. The size of the costs of adopting the law of a large jurisdiction is influenced,
inter alia, by the initial quality of the law and its variance from the optimal law for the economy contemplating such adoption.

In learning from other competition laws, one has to exercise extreme caution given that each legal regime operates in a different economic environment. One should also be wary of conflicting goals that may be given prevalence in other economies, such as the goal of market integration in the EC. It is thus crucial to define the unique issues which are most important in a small economy context in formulating competition laws.

8.3 Harmonization of Competition Laws

Our conclusions also sharpen the question which is the focus of recent debates: whether competition law can and should be unified and harmonized on a global or regional basis.\(^\text{15}\) The recent trend towards the world-wide unification of competition laws often presumes that competition policies of all countries would have been similar, absent political or social goals that impinge on efficiency-based policy prescriptions.\(^\text{16}\) Will a unified competition law be welfare-maximizing for small economies? The answer is not straightforward, as several considerations, analyzed below, impinge on the answer.

An important consideration in favor of harmonization is a reduction in compliance costs. A patchwork of antitrust national rules has become a barrier to international business. Harmonization of competition laws reduces the costs firms need to incur in order to understand the rules of the game in a foreign market. Expanding trade by reducing multiple compliance costs may permit the realization of economies of scale in production and distribution and the attainment of network efficiencies, avoiding the costs of regulatory duplication, and permitting the realization of regulatory economies. This consideration is especially important for small economies, as they stand to gain more from convergence than large ones. If the competition laws of small economies diverge significantly from those of larger jurisdictions, then it might not be profitable for an importer to invest resources in learning the relevant competition laws since the compliance costs are high in relative

\(^{15}\) The EC advances the idea of a supranational competition law for the WTO. See Palim, *supra*, note 12, at p. 142.

\(^{16}\) See, for example, Committee on the United States in a Global Economy, Eleanor Fox (chair) "Harmonizing and Coordinating the Economic Laws of Nations: A Comparative Study" 40 Rec. A.B. N.Y.C. 800 (1994).
terms since they are spread over a small number of units. Overall, small economies have a stronger incentive to reduce compliance costs. They must balance this effect against the costs of adopting rules that would reduce domestic welfare and competition.

Harmonization also ensures that exporting firms operating in a foreign market would not be subject to different rules of conduct than foreign firms operating in their home market. For example, the Australia New Zealand Closer Economic Relations Trade Agreement (ANZCERTA) extends the misuse of dominance provisions of each country’s competition law to cover the use of market power within trans-Tasman markets. This provision can produce unfair results if the misuse provisions of the two countries are not harmonized. To illustrate, the New Zealand threshold for dominant position is higher than the Australian one. As a result, Australian firms engaging in anti-competitive practices in New Zealand might escape condemnation because they do not satisfy the New Zealand threshold test, whereas New Zealand firms engaging in the same practice in Australia would be caught because of that country’s lower threshold.17

However, several premises motivate a relatively cautious view towards trade-policy driven harmonization. As Trebilcock argues, adopting one model of competition law implies the suppression of the particularistic policy choices of nations.18 In order to achieve clear and unified rules, countries would be required to adopt similar competition rules, and ensure the harmonized interpretation and application of such rules. This implies the loss of substantial national political autonomy. Given the ability of larger, more dominant nations to impress their will on smaller jurisdictions, the national prerogative is often subordinated to the welfare of large economies. Where negotiations occur between countries with asymmetric bargaining power, they carry a serious risk of gross discounting of the domestic considerations of smaller, weaker economies.19 In addition, divergent domestic laws preserve desirable regulatory competition.

This thesis has revealed an additional cost of harmonization beyond general principles- the inadequacy of “fit-all” competition rules to different-sized economies,

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17 See discussion of thresholds for dominance in Section 4.1 supra.
19 Ibid.
unless such principles are stated at a very high level of generality. The differences in optimal competition policy between large and small economies may necessitate the setting of rules that are flexible enough to apply without jeopardizing the special interests of small economies.

Accordingly, there is an important trade-off between the adoption of clear competition rules that will apply similarly in all jurisdictions, and the adoption of general principles that have the potential to increase domestic welfare in all jurisdictions, but may be interpreted and applied in a dissimilar manner by different sized economies. A wide array of options is available. At the one end of the continuum lies complete deference to national sovereigns. At the other end of the continuum lies total harmonization. In between these extremes lie many alternatives that impose greater or fewer constraints on national sovereigns while still affording some opportunity for variations across nations. Under many of these options national authorities are largely free to pursue their own policy objectives but must do so subject to a set of broadly applicable legal constraints.  

I argue for a relatively cautious approach to competition law harmonization or convergence. A bedrock of principles that could accommodate different shades of competition policy may be welfare-enhancing for small economies. The adopted policy should allow its administrators enough flexibility to deal with different situations in a different manner, while at the same time creating a clear framework with which firms can operate. Otherwise, the costs of policy convergence or equivalence may well outweigh its benefits and reduce domestic welfare. It is especially important for small economies that all jurisdictions prevent anti-competitive conduct with negative extra-territorial effects such as export cartels, as small jurisdictions may lack the economic and political power necessary to attack such conduct engaged in by firms located in larger economies. For the same reason, it is especially important for small economies that a global or at least regional dispute settlement mechanism be created that will make its judgement based on the welfare effects of the challenged practice on all economies affected.  

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20 Trebilcock and Howse, supra, note 9, at p. 8, citing to Alan O. Sykes, “The (Limited) Role of Regulatory Harmonization in the International System” (unpublished manuscript, U. Of Chicago Law School, 1997).

21 See Chapter 7 supra. Such a suggestion has been met, however, with some hostility. See, for example, the recent report of the U.S. Department of Justice Advisory Committee on International
8.4 The Relevance of Issues to Small Markets within Large Scale Jurisdictions

The relevance of the special economic issues of concentrated markets, which have been surveyed in this thesis, is not limited to small scale market economies. In some cases, market conditions may create regional sub-markets within larger markets, in which the supply price of products can vary, to a large degree, independently of price elsewhere. In other cases, although rare, demand conditions in an industry may be such as to support the operation of only a relatively small number of firms. The inherent characteristics of these two types of markets are similar, in many respects, to small-scale market economies.

Geographic market segmentation can severely limit the competitive pressures on domestic firms in two ways. First, it limits producers' sales horizons, increases their dependence on each other's behavior, and inhibits the construction of optimally-sized plants. Second, it restrains entry of outside producers and thus prevents distant suppliers from forcing local firms to hold down their prices and hence permit higher prices locally. These two effects can segregate sub-markets to the point where monopoly or oligopoly are inevitable. And under such structures how sellers behave in price and investment decisions depends upon how they expect rivals to react to their strategic moves. Thus, where a small, regional market develops within a large economy, such a market is likely to have similar problems of market structure and performance as country-wide jurisdictions. The basic difference between a small market economy and an isolated, regional market within a large economy is, however, that by definition international or inter-regional trade usually does not have a significant effect on the latter. Thus, firms in regional markets are less vulnerable to outside entry by firms that may possess cost advantages.

Several factors may sub-divide national markets into small, regional markets isolated from competition of firms operating in other regions. Regional sub-markets exist, mainly, because of geographic conditions (e.g. seas, high mountain ranges,

Competition Policy (March 15, 2000). For a different opinion see the separate opinion of committee member Eleanor E. Fox.


isolated areas), which create high transportation costs. Transportation costs render trade with other regions irrelevant where such costs are high relative to the value of the good or service. The higher the transportation costs in relation to the price of the product, the freer are plants in each location to charge prices that are higher than minimum costs of production and either to incur higher costs of production or to earn higher profits and the larger the range in which the price can vary without being bid down or undercut by exports or imports. Crucial variables which affect transportation costs include the efficiency of available transportation modes, the geographic density and configuration of demand in relation to critical raw material sources, and the practices sellers formally or informally adopt to differentiate prices spatially and to make the best of the established price structure. Studies conducted by Scherer et al. have shown that in several industries in both large-scale and small-scale economies, transportation costs were sufficiently high that regional markets provided the main framework within which plant scale decisions were made.26 As Scherer et al. observe:

“When transport costs are sufficiently high to segment a national market into relatively insulated geographic submarkets, this fragmentation can occur even in national markets large enough to accommodate several MES plants.”27

Cement is one of the most striking examples. Due to its relatively low costs of production and high costs of transportation, cement markets are usually local markets. Scherer et al. found that all six national areas which were included in their study were subdivided into at least several natural geographic submarkets owing to high transportation costs. Many of the resulting markets were too small to accommodate even a single MES plant. In some cases of regional markets, however, regional producers may interpenetrate each other’s territories when they have excess capacity that can be utilized at low marginal production cost.28 Another fragmenting influence

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25 Eastman and Stykolt have shown that in some industries Canada is divided into small regional markets. They also showed regular regional variation in the proportion of efficient capacity. The largest regional market had the highest proportion of efficient capacity and the smallest (normally the Atlantic provinces) had the lowest proportion of efficient capacity. Eastman and Stykolt, supra, note 22.
28 Ibid, at p.179.
on national markets is caused by geographic conditions coupled with the perishability of products. Where products cannot be shipped for long distances, the market for them is inherently regional.

The small size of a market can also be the result of service markets which are local in the sense that consumers use the service at its location and usually do not travel distances in order to obtain the service (e.g. gas stations, professional services, etc.). Isolation may also be created by the special needs of a regional market. The EC \textit{Magill} decision\textsuperscript{30} is illustrative. Magill centered on whether the copyright in the TV listings of the three Irish broadcasting companies should be regarded as an essential facility in the publication of week-ahead TV guides. Although Ireland is part of the EC, the TV listings market is inherently a local one.

The U.S. health care industry also provides a useful example of a concentrated local industry with high entry barriers within a large economy.\textsuperscript{31} The health industry is characterized by large minimum efficient scales of operation. The American competition authorities recognized the special characteristics of this industry and the need to apply the competition rules in a different manner that reflects its different characteristics. In the 1993 Policy Statement in the Health Care Area\textsuperscript{32} broad safety zones have been applied for mergers, in order to enable hospitals to achieve scale economies. The recognition of the special characteristics of this market is also evident from the fact that most hospital mergers are not challenged, although they fall under the highly concentrated market analysis of the Merger Guidelines. Of more than 200 hospital mergers in the nation that took place in the period of 1987-1993, only 8 were challenged by the DOJ or FTC, although many fell within the high scrutiny category under the merger guidelines.\textsuperscript{33} The fact that special guidelines were issued for this industry reflects the belief of the competition authorities that general U.S. competition policy towards mergers is ill-suited to deal with mergers in this industry.

Issues of small-scale jurisdictions may also be relevant to large-scale economies where market failures exist due to a combination of economic, geographical, technological, legal or political factors. Even in nations like the U.S. with large and for the most part competitive markets, there exist isolated instances of

\textsuperscript{29} Eastman and Stykolt, \textit{supra}, note 22, at pp. 40 and 58.
\textsuperscript{30} Joined cases C-241/91 P and C-242/91 P \textit{RTE and ITP v Commission} 1995 ECR I-743.
\textsuperscript{31} Gilo, \textit{supra}, note 24, at p. 42.
\textsuperscript{32} \textit{64 Antitrust and Trade Reg. Rep. No. 1631} (Special Supp. X September 1993).
\textsuperscript{33} \textit{Ibid.}
markets where market forces alone cannot achieve efficiency.\textsuperscript{34} It may well be that the demand for a product, relative to MES of production, is such that the market can only support a limited number of domestic firms. One famous example involves the telecommunication market, where low-cost technology for long-distance calls created large-scale economies. Accordingly, natural monopolies or oligopolistic markets may exist in large countries. Such markets are likely to have similar problems of market structure and performance as small economies.

There is, however, an important difference between concentrated markets within large economies and small economies, based on the occurrence of such market structures. In large markets highly concentrated market structures protected by entry barriers are exceptional and the off-setting social costs are usually modest, while in small economies these market failures cannot go unattended without major efficiency losses. This difference requires, as this thesis has shown, a difference in the focus of competition laws. The magnifying glass effect thus affects optimal competition policy.

\textsuperscript{34} Scherer et al., supra, note 26.