EXPERTS IN THE POLITICAL ARENA:
TELECOMMUNICATIONS POLICY IN THE UNITED STATES

by

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A thesis submitted in conformity with the requirements
for the degree of Ph.D.

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0-612-59059-3
Abstract

This thesis examines how experts operate in the political arena. To do so, it proceeds with a case study of American telecommunications policy at the federal level, focusing on the adoption of the Telecommunications Act of 1996. The first set of research questions relates to the issue of recognition. How do experts become legitimate providers of policy advice? What are the criteria for selection? The second set of questions relates to the power of experts. Can expert proposals influence policymaking? Through which paths and mechanisms can their proposals be incorporated in the policy process?

Two strategies available to experts to gain recognition are identified: professionalization and boundary-work. In the case study, professionalization is not sufficient to explain the competition between economists and lawyers to be recognized as the relevant source of advice on telecommunications policy. It is boundary work that allows economists to be recognized as the best source of advice in this field. Indeed, lawyers have a stronger professional position than economists, but economists are able to carve out a jurisdiction based on the notion of economic efficiency. This research also identifies what criteria are used by policymakers to select experts, by examining who was invited to appear at congressional hearings leading to the Telecommunications Act of 1996. The main criteria are: 1) formal credentials 2) experience in federal agencies and 3) views supportive of policymakers' positions. This latter criterion highlights the role of legitimization played by experts in policymaking.

Regarding the issue of influence, the case study confirms that expert advice rarely has a direct impact on the specific content of a new policy. The influence of economists is not on policy formulation; the primary effect is during the setting of the political agenda and even before. Economists changed the policy paradigm for the regulation of telecommunications. Their knowledge first gained pre-eminence within academia and then within government. Through various publications, conferences and meetings, experts in think tanks further diffused these ideas. This is how a new policy paradigm on telecommunications reached policymakers.
Acknowledgements

This research was supported by a Doctoral Scholarship from the Social Sciences and Humanities Research Council of Canada (SSHRC). Further financial assistance was provided by the Department of Political Science and the Research Travel Fund of the University of Toronto.

I wish to thank my supervisor David Wolfe, my parents and my spouse Mark for their support during the preparation of the thesis.
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Chapter 1

The authority of science is ultimately political, resting as it does on the ability to hide assumptions and world views behind a veneer of objectivity that is taken for granted by billions of people in their everyday lives (Jasanoff and al., 1995, p.528).

1. Introduction

Who decides whether we should avoid milk from cows treated with hormones or whether we can safely eat genetically engineered carrots? Who participated in the MacDonald Royal Commission, recommending free trade with the United States as the best economic strategy for Canada? Who was involved in the Royal Commission that recommended there was no need to regulate the practices of the Canadian physicians using new reproductive technologies? Who gets invited to public hearings to give authoritative advice on where a hydro-electric plant should be built? The answer to all these questions is: *the experts.*

Experts are the focus of this thesis. This inquiry on experts as political actors attempts to answer two sets of questions. The first set relates to the recognition of experts as legitimate providers of policy advice. What are the criteria used by policymakers to select experts who will participate in the policy process? As different groups of experts compete to be recognized in the policy sphere, what are the tools and strategies available to them and how do they use them?

The second set of questions relates to the power of experts. Once recognized in the policy arena as potential providers of expert advice, to what extent can expert policy proposals influence policymaking? What symbolic role does expertise play in the policy
process? Through which paths and mechanisms can experts’ policy proposals and views be incorporated in the policy process?

In order to investigate these questions, this research builds a case study of policymaking in the United States telecommunications sector. Telecommunications policy is a promising sector to investigate these questions. Indeed, policymaking in telecommunications is knowledge-intensive. Whether through public hearings or other channels, experts are asked to offer advice on which public policies are the most appropriate for the regulation of the telecommunications services industry. Moreover, the regulation of this industry went through a major transformation over the last several years, from being based on the concepts of public interest and monopoly to being structured around the objectives of the new policy paradigm, efficiency and competition. This shift provides the opportunity to examine the influence of experts in policy change and to observe the process of recognition, as the contest among experts should be more visible in times of change (Hall, 1993).

What does the existing literature have to say about the influence of experts and about their recognition in the political arena? The following section reviews the contributions from political scientists and sociologists to these questions. As one might expect, sociology of science has more to say about recognition in the social sphere in general than in the political realm, and the political scientists who studied expertise have been more interested in the question of power.
1.2 Review of literature

1.2.1 Recognition

The definition of an expert should be our first step in our inquiry about how some individuals are considered especially competent to provide advice to policymakers. Sociologists tell us that experts lay claim to a peculiar type of knowledge that can be labeled "formal knowledge." Different types of knowledge coexist: sacred and profane knowledge, lower and higher knowledge, etc. "In the West, higher knowledge was formalized into theories and other abstractions, based on efforts at systematic, reasoned explanations, and on justification of the facts and activities believed to constitute the world. Formalization so distinctly marks modern higher knowledge that it is appropriate to call it formal knowledge" (Freidson, 1986, p.3). Formal knowledge is closely associated with the rise of modern science and is produced and transmitted in its closely associated institution, the modern university.

The definition of experts adopted here is that used by sociologists of profession (Larson, 1990; Freidson, 1986; Larson, 1977). Sociologists use the term "professionals" to name the agents of formal knowledge in order to stress the material requisite. They argue that "no matter what one's definition of those who are agents of formal knowledge is, part of it must include or at least imply the characteristic way they get a living, without which they cannot exist" (Freidson, 1986, p.14). However, I prefer the more generic term "experts," because the term "professionals" is linked to the nationally based process that took place in the United States by which agents of formal knowledge were able to monopolize certain work positions. The term "experts" is broader and not country-specific and can therefore include all agents of formal knowledge.
Most sociological research on agents of formal knowledge focuses on scientific knowledge. This literature highlights how scientists have been able to build strong cognitive authority within our societies. The cognitive authority of science is so powerful that natural scientists can claim to be the only providers of "truths" about the natural world. The social sciences also attempt to establish such authority over the description and explanation of the social world, but natural scientists are more successful in persuading policymakers and the public that they are "fact providers." However, the constructivist approach in the sociology of science challenges the assertion that science simply provides truths. This literature contests the positivist claims that science is a direct description of the natural world and that each new description brings us nearer to the truth. Rather, it suggests that scientific facts are constructed; scientists combine technical and social elements to create an account of the natural world (Latour and Woolgar, 1979, Knorr-Cetina and Mulkay, 1983).

The constructivist approach challenges the traditional positivist view that experts can be neutral providers of evidence on which to base rational political decisions. The traditional view on the import of formal knowledge into political decisionmaking draws a sharp line between "politics" and "science." According to this perspective, expert knowledge is considered devoid of values, preconceived ideas or positions, and therefore the guardian of rationality. The advice proffered by agents of formal knowledge to policymakers will be simply based on their empirical observations and theoretical considerations, not their political preferences. Thus, the "best solution", the "most scientifically sound" policy option will be proposed by the experts and possibly adopted by the political authorities. However, "the social constructivist perspective undermines all these claims to authority by demonstrating that there is, in principle, no way to separate science from values in any policy area, that any line drawn is artificial, temporary and convenient to the purposes of the person or the group drawing the line. The point is not
merely that political uses of science are inevitable; rather, it is not even possible to think about what science is apart from its various constructions" (Cozzens and Woodhouse, 1995, p.541).

Nevertheless, scientists are able to establish and maintain their authoritative status. "If [as constructivist studies of science proposed] there is nothing inherently, universally, and necessarily distinctive about the methodology, institution, history or even consequences of science, then why and how is science today routinely assigned a measure of cognitive authority rarely enjoyed by other cultural practices offering different accounts of reality? ... On what grounds is this authority warranted, if not for some epistemological or social quality essential to science?" (Gieryn, 1995, p.404-5, emphasis added).

This question brings us back to my questions regarding the recognition of experts in the policy arena. Sociologists have thoroughly studied professionalization as the main strategy used by experts to acquire and preserve cognitive authority. The study of professionalization by sociologists focused on how certain groups were able to access and monopolize privileged positions in the social division of labor. The professionalization phenomenon which took place in the late nineteen century and in the twentieth century in the United States has been well documented. Professionalization is characterized by: 1) the appropriation by a group of a certain cognitive base; 2) the institutionalization and codification of this cognitive base for the training of newcomers; 3) the creation of a credential system which favors them in the job market; 4) the creation of a formal association (professional association); and 5) the possession by practitioners of a relative work autonomy in order to reach "the monopolization of the opportunities for income in a market of services and ... the monopolization of status and work privileges in an occupational hierarchy" (Larson, 1977, p.51; see also Freidson, 1986). The
professionalization of scientists was closely linked to the development of the modern universities. Scientists monopolized the market for positions such as university professors and created various restrictions for the entry into science, such as long esoteric training and publication in scientific journals. They developed a strong work autonomy with strict rules so that only peers were considered competent evaluators of the work of scientists.

The professionalization process through which knowledge-bearing groups can acquire and preserve cognitive authority can also be greatly dependent on the State. An issue rarely explored by the sociological literature is the relationship between formal knowledge and the political arena. This relationship can be beneficial for both actors. "A key to the legitimation of scientists' cultural authority is the perceived pertinence of science for political decision making: As government officials turn to scientists for expert advice before promulgating regulations or statutes, they are simultaneously measuring and reproducing the authority of science over claims about reality" (Gieryn, 1995, p.435 referring to Mukerji, 1989, chap.10). Likewise, policymakers can rely on experts' cognitive authority to bring legitimacy to their decisions and actions. The relationship between the State and knowledge-bearing groups has long been neglected in the sociology of professions. The emphasis on the development of professions in the Anglo-American sphere can partly explain this gap, as professions in these countries emerged from civil society (Larson, 1990). For the professions in continental Europe, the State was and is still much more important actor in the certification of knowledge and in granting jurisdictional monopoly or dominance. The implications of this relationship between the State and knowledge-bearing groups have only begun to be studied (see Ziegler, 1997).

Adopting a different perspective on the power of knowledge-bearing groups, some research stressed the importance of jurisdictional competition between professions (Abbott, 1988). Without denying the existence of dominant groups such as doctors in the
provision of health services, Abbott argues that professions "make up an interdependent system. In this system, each profession has its activities under various kinds of jurisdiction. Sometimes it has full control, sometimes it has to share the jurisdiction with a subordinated group. Jurisdictional boundaries are perpetually in dispute, both in local practice and in national claims. It is the history of jurisdictional disputes that is the real, determining history of the professions" (Abbott, 1988, p.2).

More recently, sociologists have examined another strategy experts use to build their cognitive authority, namely "boundary-work." Indeed, experts can build their cognitive authority by distinguishing their knowledge, activities or values from other knowledge-bearing groups. When marking a "territory" over which they claim a monopoly in the provision of knowledge, experts operate what has been called "boundary-work" (Gieryn, 1983). Boundary-work can differentiate scientists from non-scientists as well mark the territory of various scientific disciplines and competing groups. By imposing their definition of the boundary between science and non-science, scientists define the issues over which their authority cannot be disputed. Similarly, a group of experts or a discipline can acquire or maintain its authority over a range of problems or issues by excluding others as not relevant. Boundary-work can also be performed to differentiate science from politics in order for the scientists to retain their autonomy or to reach other objectives.

The primary weapon for boundary-work is rhetoric (Gieryn, 1983; Abbott, 1988). The drawing of boundaries is a battle where experts use words as weapons to defend their interests and positions. The forms of boundary-work will vary from one context to another. A frequent form is the reference to higher values to legitimize one's authority. For example, "adherence to the Mertonian norms ... has given scientists an assured basis for claiming cognitive authority" (Jasanoff, 1987, p.198). Merton (1973) identified four
main values which govern the production and certification of scientific knowledge. First, universalism refers to the premise of objectivity and empirical observation. "The acceptance or rejection of claims entering the lists of science is not to depend on the personal or social attributes of their protagonist" (Merton, 1973, p.270). Community ownership of the findings of science, disinterestedness and organized skepticism are other norms on which science bases its cognitive authority. Although later rejected by sociologists of science because they ignore the constructed nature of science, the criteria identified by Merton are important because they are often used as tools by scientists to differentiate themselves from others. For example, in 19th century England, scientists had to fight with religion and engineering's intellectual authority to get public and financial support. By emphasizing adherence to the values identified by Merton, scientists were able to gain authority which was reflected, among other things, by the increased inclusion of scientific curriculum in universities (Gieryn, 1983).

Aside from reference to higher values, Abbott identified other mechanisms for jurisdictional contests. Abbott grants importance to the level of abstraction of the formal knowledge of a group to predict success in the competition among experts. Abstraction and formalization allows experts to expand into new areas.¹ For example, using a general concept such as deviance, medicine was able to claim competence over a great number of behaviors. A too concrete and specific body of knowledge prevents a group from adapting to changes in technology or organizations. Similarly, a too codified body of knowledge is vulnerable as it can be more easily usurped by groups which are lower in the occupational hierarchy. Therefore, groups which can maintain an optimal level of

¹ "The recent expansion of expert systems research illustrates the rule about abstraction perfectly. Practionners of artificial intelligence argue that all professional inference follows a certain form, which can be generated by a suitably programmed machine. This is in some sense the ultimate abstraction, reducing all professional inference to one form and all jurisdiction to a single unit." (Abbott, 1988, p.102).
abstraction will be the most successful at maintaining and gaining new jurisdictions. Of course, changes in technology and organizations will often create and destroy jurisdictions. However, Abbott suggests that the level of abstraction of the knowledge held by a profession will be the intermediary variable to explain which groups disappear, which move to new vacant jurisdictions and which will be able to expand into an area dominated by competitors.

Institutions such as modern universities can also be used to draw jurisdictional maps. It seems that boundary-work is not limited to discursive debates but can also be accomplished through institutions. With many national variations, the university became the location where science was produced. This institutional "boundary-work" creates a clear demarcation between legitimate and non-legitimate knowledge, between science and "amateurism" (Wittrock and Wagner, 1996). Within the university, further boundaries are created. Disciplinary partition allows knowledge-bearing groups to establish the limits of their own cognitive authority and most important, of adjacent and rival groups. Academic disciplines are then embodied in the university's sub-units, i.e. departments.

The concept of boundary-work as a strategy to validate one's expertise has been used by one political scientist in her study of regulatory science. Jasanoff (1990) examined the role of scientists in American regulatory institutions. She points out an important issue regarding the role of experts in policymaking: the controversial nature of regulatory activities. Criticized by politicians, media, and the public, regulatory science in the United States had serious difficulty keeping its legitimacy, especially after some high-profile controversies in the late 1970s.

One frequent proposal to respond to critics, according to whom regulatory agencies were using "bad science", was to introduce greater peer review. Peer review is
recognized as a very important procedure for certifying research as a valid scientific product. It has indeed become one of the main tools for boundary-work, for scientists to distinguish their activities from the work of others. Critics of regulatory agencies argued that if the agencies were to rely more on independent non-biased scientists, their research and policy decisions would be better. According to this approach, independent experts should control the quality of the technical and scientific information used in reaching a decision.

For a variety of reasons, peer review cannot provide a guarantee for producing good science for the purpose of policy, as the technocratic approach would claim. In a study of the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA), Jasanoff discovered that the battle of regulatory agencies to maintain their legitimacy and claim to scientific authority is very arduous. Regulatory science is an open, public and controversial domain, especially in the United States. In this environment, the constructed nature of science is often completely exposed, which makes the agency vulnerable. Indeed, when entering the political arena, the expert's work is often subjected to very critical evaluation. The "deconstruction pressures" created by the policy process result in experts trying to make their advice more resistant to critics.

In order to counter strong criticism, American regulatory agencies established a number of scientific advisory committees. The EPA and the FDA considered that "timely consultation with outside experts can prevent controversy or, at the very least, protect effectively against challenge" (Jasanoff, 1990, p.229). Even though this peer review process provides legitimacy to regulatory policymaking, these experts do not limit their advice to technical matters. Jasanoff's examination of these advisory committees confirms their hybrid character: combining scientific evidence with "large doses of social and political judgment."
Jasanoff observed that "by drawing seemingly sharp boundaries between science and policy, scientists in effect post 'keep out' signs to prevent nonscientists from challenging or reinterpreting claims labeled as science. The creation of such boundaries seems crucial to the political acceptability of advice" (Jasanoff, 1990, p.236). Boundary-work based on resorting to peer review is another example of how experts can build and maintain their cognitive authority and be recognized as valid advice providers in the political arena.

1.2.2 The influence of experts

Political scientists do not have a coherent research program on the power of experts in political systems. Nevertheless, some scholars in the sub-fields of comparative politics and international relations have considered this issue. In international relations, the concept of epistemic communities was developed to study the role of networks of knowledge-based experts in international policy coordination. While recognizing the centrality of power politics in relations between states, this literature stresses the importance of knowledge and expert advice in structuring how policy problems are understood and how different actors come to evaluate their interests in the international arena. An epistemic community is a network of knowledge-based experts characterized by four main features: a shared set of normative and principled beliefs that provide its members with a rationale for action; shared causal beliefs that can come from their common background or analytical tools and that serve to propose policy options; shared notions of what constitute valid knowledge in their field of expertise (consensual knowledge base); and a common policy enterprise (Haas, 1992).

The table below illustrates how epistemic communities are distinct from other groups such as an academic discipline or a profession, or an interest group. A profession
or an academic discipline may share a set of causal beliefs and have a common knowledge base, but does not share the same normative beliefs and does not participate in one policy project. For example, "while economists as a whole constitute a profession, members of a particular subgroup of economists—Keynesians or followers of one of the schools of development economics—may constitute an epistemic community of their own and systematically contribute to a concrete set of projects informed by their preferred views, beliefs and ideas" (Haas, 1992, p.19). On the other hand, groups such as interest groups or social movements have a common set of normative commitments and interests, but do not have the consensual knowledge base and causal beliefs of epistemic communities.

**Epistemic communities vs. other groups**

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<th>Unshared causal beliefs</th>
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The main concern of the literature on epistemic communities is to understand the political influence such a community can have on international coordination and collective decisionmaking. Proponents argue that under circumstances of complexity and uncertainty, epistemic communities can exert influence over policy change on the international scene during the four steps of the process: policy innovation, policy diffusion, policy selection and policy persistence (Adler and Haas, 1992).

In terms of policy innovation, the influence of epistemic communities is three fold. First, they can frame the issues: "By defining the nature of the issue-area and framing the context in which data and new ideas are interpreted, epistemic communities bound the range of collective discourse on policy, as well as guide decisionmakers in the choice of appropriate norms and appropriate institutions within which to resolve or manage problems" (Adler and Haas, 1992, p.375). Whether the issue is international coordination regarding pollution control, arms control, macroeconomic management or the inclusion of trade services in the multilateral trade regime, policymakers' views of their interests and of appropriate policy objectives depends how on the issues are framed. The empirical evidence suggests that an epistemic community can have an important impact in that respect (see Drake and Nicolaidis, 1992; Alder, 1992; Haas, 1992; Ikenberry, 1992). Epistemic communities can also have a direct impact on the identification of national interests, and through their influence, on the setting of standards and development of regulations.

At the second step of the process, epistemic communities diffuse their advice across countries through publications, conferences, and communications with colleagues. If a epistemic community is based solely in one country, or gains power only in one regulatory agency or one international body, then its international influence is merely a function of that country or organization's influence over the others. On the other hand, if
the community is influential in many countries, then it can contribute to the convergence of national governments' policy preferences. An epistemic community does not need to include a large number of people to have an impact on international policy coordination (typically under 35). More important is the respect the members command and the timing of their intervention. Ikenberry (1992) also noticed that epistemic communities can have a greater impact in policy sectors that are less controversial and considered more technical by decisionmakers.

Third, the influence of epistemic communities on policy selection varies according the level of familiarity policymakers have with the issues at stake. When no institutions exist to deal with an issue and there is greater uncertainty about what is at stake, epistemic communities can have their greatest influence. "On the other hand, if decisionmakers are more familiar with an issue, they tend to call on an epistemic community whose ideas 'implicitly align' with their own preexisting political agenda and will help them further it" (Adler and Haas, 1992, p.381). If the epistemic community was especially effective at the previous phase of diffusion of its ideas, its influence on policy selection can consequently decrease. Indeed, Drake and Nicolaidis' (1992) study of the inclusion of services in the Uruguay Round highlights the fact that the epistemic community was influential at the beginning of the process, but when ideas and interests were clear to policymakers, power and negotiations were determining the selection of an option for a multilateral trade regime for services. Finally, the epistemic communities that will remain influential over a long period of time are the ones that can keep a high level of consensus among members. Policy persistence will depend mostly on this factor, as well as economic or political crisis that can affect the authority of the community.

Comparative politics also provides some interesting works on the question of the potential influence of experts in policymaking. Some comparative public policy studies
have placed more emphasis on the role expertise plays in the legitimization of policy choices (Primack and von Hippel, 1974; Saward, 1992). Thanks to its cognitive authority, expertise can be used as a powerful source of legitimacy for policymakers. "An essential function of science advisors ... is to act as high priests whose ministrations during the preparation of a policy are supposed to render that policy immune from political attacks" (Primack and von Hippel, 1974, p.47). Policy-makers are not the only ones to use expertise as a political resource (Nelkin, 1992, 1987). Expertise can be used to legitimate the actions of government but also to attack and criticize the political choices of these same governments. "The way protagonists on both sides use the works of experts reflects their judgments about social priorities or about acceptable level of risks. Expertise is reduced to a weapon in the political arsenal of competing groups" (Nelkin, 1992, p.xix).

Other works from the comparative politics literature have focused not on the symbolic role of experts, but on their substantial input and influence in the political arena. Indeed, the literature on the impact of Keynesian economists on economic policy is well developed (Hall, 1989; Weir and Skocpol, 1985; Winch, 1969 to name a few) and has been recently augmented by a literature on the influence of monetarist economists (Singer, 1993; Hill, 1989; Steele, 1989). The role of social scientists in the adoption of social policies has also been explored in a recent collection of texts (Rueschemeyer and Skocpol, 1996). Based on an examination of the health and transportation sectors in the United States, Kingdon (1984) analyzed the importance of the various political actors involved in agenda setting, including the role of experts.

According to this literature, the greatest impact of experts on policymaking is in the "realm of political references." The knowledge and ideas provided by experts to policymakers can modify the political debate or the very premises of the public discourse
on a given topic. It can remodel the definition of what is considered a problem, what is
the field of State intervention and what are the possible solutions to the problem.

The literature on the use of Keynesian economics in policymaking points at this
conclusion. Keynesian economics had a greater impact on how policymakers and the
public envision the role of State in the economy than on specific public policies.

Keynes' arguments about the instability of the private economic and the
usefulness of state intervention became an important ideological pillar of the
social consensus endorsing a managerial state and the mixed economy of the
postwar world. (Hall, 1989, p.365). On the other hand, specific policy
proposals for countercyclical demand management ... had a much less
consistent impact on the industrialized world (Hall, 1989, p.367).

Some works on the development and importance of "social knowledge," that is
social scientists, support the findings recording Keynesian economists' impact on
economic policies. In a study of the political influence of social scientists of the Verein für
Sozialpolitik in Germany and the Fabian Society in Britain, Rueschemeyer and Von Rossem (1996) conclude that these knowledge-bearing groups "achieved [their] greatest
impact not by influencing policy measures directly but by transforming the public view of
social and economic problems and of the role and the responsibility of the State"
(Rueschemeyer and Von Rossem, 1996, p.123). Their collection of studies on the early
social sciences all come to the same conclusion: these experts had more impact on the
background assumptions of policymaking than on specific policy design.

The second conclusion one can infer from the literature is that the diffusion and
acceptance of expert advice is a complex process. Political institutions impinge on the
provision of expert advice and on the influence experts can have on policymaking. The
literature on Keynesian economic policies provides an excellent example. Even through
the most powerful impact of Keynesianism was on the policy discourse, specific countercyclical demand management measures were adopted in many countries. The entry of economic experts armed with Keynesian tools and knowledge apparatus in the advice system and State bureaucracy was crucial to the diffusion of these policies.

Weir (1989) further argues that rigid patterns of recruitment in the bureaucracy combined with a hierarchical pattern of authority reduce the possibility of policy change proposed by experts. One could find such institutional arrangements in Britain where they prevented the adoption of Keynesian policies during the interwar period. However, the flexible procedures of recruitment and advancement and the fluid, non-hierarchical institutions of the American government facilitated policy innovations such as Keynesian economic policies during the late 1930s. "However, numerous competing centers of advice may prevent the emergence of an authoritative center for policy recommendations making early advances in policy innovation difficult to consolidate" (Weir, 1989, p.59). The consolidation of Keynesianism was indeed much more arduous in the United States than in Britain. Keynesian policies were not consolidated before 1961 in the USA whereas in Britain "once the war had upset established hierarchical patterns and admitted Keynesians into positions of influence, the triumphs of Keynesianism depended on 'converting' the Treasury and restoring its old prominence in economic policymaking" (Weir, 1989, p.84).

1.3 Research questions

Despite the fact that there have been relatively few studies on the role of experts per se, the relevant literature from sociology and political science offers good material to build my analytical framework. First, sociology provides useful tools to investigate the questions related to recognition of expertise in the political arena. The literature uses the
concept of professionalization and boundary-work to explore how experts can establish their cognitive authority in the workplace, in courts and other social environments, but not in the political sphere. In this research, I will examine how these two strategies are used by experts to compete for recognition from elected and appointed officials. The literature has not examined my other question relating to recognition: what are the criteria used by policymakers to select experts? Hence, it does not provide analytical tools and a more inductive approach will be preferred for this question.

As for the questions relating to the influence of experts, the general conclusion from the literature is that experts are generally more influential on policy discourse than on specific policy changes. The main qualification to this statement is that when policymakers have a clear idea of their interests and are already familiar with a policy issue, experts will be less influential. Their role may be limited to legitimizing already accepted policy decisions. On the other hand, when the debates are still unstructured, the interests unclear, experts can exert the greatest influence. Regarding the question of the path of diffusion of an expert’s influence, political scientists point at the bureaucracy as a main route. The literature adds that this diffusion in the bureaucracy is very dependent on the nature of its institutional arrangement; for instance, open institutions will facilitate diffusion but make consolidation more difficult.

My research tests the hypothesis advanced in the literature that the influence of experts is usually limited to the general frame of references and not to specific policies per se. The second hypothesis to be tested is that when the issue and interest of parties are clear, the role of experts focuses on legitimizing policy decisions. Finally, I will verify the impact of institutions on policy experts; the literature proposes that open and fragmented political institutions allow for easier entry of formal knowledge in the policy process, but for more difficult implementation of their policy prescriptions.
However, my inquiry is not limited to questioning whether experts are influential, but also investigates the much less examined question of how this influence is exerted. First, I trace how the influence of one group of experts can be expanded within academia. Next, I examine the role of the government bureaucracy. I also look at other mechanisms of transmission of influence, such as policy institutes, which has not been done in previous studies. I can therefore discuss whether experts can influence the policy process, under what conditions, and through which mechanisms they can do so. The main original contribution of this research lies in its examination of the question of recognition of experts in the political arena—an area that has been neglected by political science and sociology alike. My study of the influence of experts will also contribute toward building a stronger body of knowledge on the question, since the number of scholarly works on this issue is limited. There has been even less examination of the paths of influence, and this research, I hope, will build a better understanding of this question.

1.4 Research strategy: Telecommunications policy

This research project builds a case study investigating policy changes in the regulation of the telecommunications services industry in the United States. Why select this policy sector over others? This policy area has been subject to a recent policy paradigm shift; therefore, it provides the ideal conditions in which to observe experts competing to be recognized as the relevant and legitimate providers of advice. Moreover, studying telecommunications policy draws attention to economic policies that have been less studied by comparative politics scholars interested in the role of experts. The focus has been primarily on macro-economic policies. In most countries, economics now dominates the provision of advice in macro-economic policymaking (Singer, 1992). Studying micro-economic policies allows me to verify if this group of experts also dominates this area, or if other potential competitors exist. Finally, I should highlight that the telecommunications sector takes on a special significance in our economies. Unlike other micro-economic policies that have been subjected to major changes (regulation of transportation or subsidies to agriculture for example), regulation of telecommunications affects an industry that has
been at the forefront of what has been called the new techno-economic paradigm. Indeed, economists analyzing the consecutive periods of economic growth identified information and communications technologies as the engine of the current growth period (see Freeman and Perez, 1988). Given this special status for the economy, this sector gains a higher profile in public debates, as decisions affecting telecommunications are seen as having economy-wide consequences. This section provides a brief overview of the recent changes that have occurred in telecommunications policy and the proposed explanations for these changes.

Since the late 1980s, many industrialized countries have adopted initiatives reforming the regulation of their telecommunications services industry. Historically, telecommunications have been either highly regulated or owned and controlled by governments in an effort to meet a variety of objectives: universal and affordable service for the general public, defence and security needs and because of a consensus that the telecommunications network presents the characteristics of a natural monopoly. However, many States have remodeled their intervention in the sector. This thesis will focus on one aspect of these recent liberalizing policies: the authorization of competition in previously monopolized markets (Noam, 1994). Liberalizing initiatives are often confused with other measures in telecommunications, such as deregulation or privatization. These three policies are distinct. Adopting one does not compel a State to embrace the others. Privatization consists of the transformation of a public corporation into a private one, whereas deregulation can be defined as the reduction of government-set constraints (Noam, 1994). Even if liberalization, privatization and deregulation are analytically distinct, their articulation in public discourse has resulted in a coherent set of ideas that has been embedded in a new policy paradigm. The organizing principle of this paradigm holds that market mechanisms (competition among many providers, unregulated fixation of price, private ownership, etc.) better allocate resources than State interventions. The transition
from monopolized to competitive telecommunications service markets is regarded as part of a paradigm shift: from the "interventionist" paradigm to the new neo-liberal one. The transition entailed the transformation of the very definition of the problems to be resolved and the goals of governmental intervention. The premise of the former paradigm was that governmental interventions in the economy were not only beneficial, but necessary to achieve a variety of goals. In telecommunications policy, objectives such as universal and affordable access to telephone service were structuring the political discourse and directing State interventions.

The adoption of the interventionist model has varied greatly from one country to another. On the one hand, the American government avoided public ownership and preferred using regulation to intervene in economic affairs. On the other hand, continental European countries frequently appealed to public ownership, industrial policies or indicative economic planning. Similarly, the acceptance of the neo-liberal paradigm has differed from one country to another. Despite these differences, many national governments have adopted legislation allowing for competition in the provision of telecommunications services; these new policies transformed the former monopolistic market structures. The adoption of liberalizing initiatives in several national settings after decades of institutional stability presents an interesting puzzle. What forces propelled these reforms in telecommunications?

Telecommunications policies have been widely analyzed. Three complementary explanations for recent reforms can be identified: technology, interests and ideas. The first explanation focuses on the impact of technological change and argues that these global reforms are inevitable because they are mainly technology-driven. Technological innovations in the telecommunications industry modified the range of possibilities; it created the possibility of having alternative networks at lower cost. These technical
innovations lie in three clusters. First, new transmission technologies based on fiber-optic cable, satellite and semi-conductors increased the capacity of networks. The advent of fully electronic digital-switching systems increased the network's possibilities and decreased its operating costs. Thirdly, the digitalization of the network (transmission and switching) allowed computers to provide a great variety of "enhanced-service" over the network. These three clusters of technical change joined to create what has been called technological convergence, which eroded traditional barriers between telecommunications, micro-electronics and broadcasting industries. It has been suggested that new telecommunications technologies undermine the rationale for a monopolist provider of telecommunications and therefore, eliminate the need for regulation as competition takes over the market (Huber, 1987, 1992). For example, wireless technology makes possible the creation of alternative infrastructures to the local phone network.

The second explanation for reforms in telecommunications makes use of an interest group analysis. Even though scholars acknowledge technical changes within the sector, they argue that the pressures and demands from business users requesting lower telecommunications costs or the efforts of potential competitors to open the telecommunications market are more likely to explain reforms (Dyson and Humphseys, 1990). Large corporations demanded increasing telecommunications services and equipment for the transmission of data, especially in the financial sector or in multi-site firms. Consequently, telecommunications became a very large item in a firm's budget; companies sought ways to decrease these expenses by demanding reforms. Another interest-group explanation emphasizes the importance of producers rather than business users. According to this approach, liberalization reforms are the visible result of a strategy adopted by actors who have much to gain from such changes in national policies (Drahos and Joseph, 1995; Hills, 1986). The United States and powerful multinationals are identified as the actors that most profit from liberalization, whether in
telecommunications equipment exports or provision of services. It is thus argued that through multilateral (GATT) and bilateral pressures, these powerful producers of telecommunications services and equipment have succeeded in setting a global liberalization agenda.

Cawson et al. (1990) argued that variations in national telecommunications reforms in the 1980s were conditioned by both producers and users of telecommunications services. After examining reforms in France, Great Britain and Germany, they concluded that "while technological pressures may have been broadly similar, these pressures were handled differently because of the balance of power between producers and users was different and this, in turn manifested itself in divergent political priorities" (Cawson et al., 1990, p.84). For example, financial and banking service industries in Great Britain are heavy users of telecommunications services and were supported by the Conservative government. In France and Germany, the national operators enjoyed much more political support. In consequence, Great Britain opened its market much more aggressively than continental Europe.

The third category of explanation for recent changes in telecommunications policy stresses the power of ideas. Derthick and Quirk (1985) underscore the importance of the economists' critique of regulation to explain regulatory change in telecommunications and other industries, such as airlines and trucking. Their study looked at deregulation and liberalization in the United States during the 1970s and early 1980s and pointed out the importance of policy entrepreneurs and the weakness of affected industries in defending their interests through political action. But the authors also argued that policy recommendations made by economists critical of regulation for being both inefficient and unsuccessful were essential in reforming regulation.
However, for this "greatest recent success" (Nelson, 1987) of the economic profession to occur, the discussion had to go beyond the academic circle.

That this happened is largely accounted for by three circumstances. First, the critique was taken up by precisely those organizations, foundations and policy-oriented research institutions, that specialize in linking the social science analysis to public policy formation. Second, economists entered public service in large enough numbers, and in offices sufficiently influential and strategically placed to constitute an important force for advocacy within the government. And, finally, several elements of the executive branch were disposed to promote procompetition policies (Derthick and Quirk, 1985, p.37).

Derthick and Quirk identified two private Washington-based institutes as policy-oriented organizations that were very active in promoting regulatory reforms: the Brookings Institution and the American Enterprise Institute for Public Policy Research. Governmental organizations are also important in the economic analysis of regulatory policies. Advice to policymakers came from the Council of Economic Advisers, the Office of Management and Budget, the Justice Department, the Department of Transportation and various presidential task forces. Many economists entering the public service were influential critics of regulation. The advice of these economists needed to be heard by supporting policymakers if their ideas were going to be put into practice. A strategic advantage of the economic rationale for deregulation is that it appealed to very different political forces. Conservative political forces would see it as a way to limit the role of the government in the economy, whereas the left would consider it as a way to attack the control of big business. Furthermore, deregulation was also presented as a way to tackle the problem of inflation. Therefore, it was able to acquire support from major policymakers on both sides of the aisle.

Unlike Derthick and Quirk and the other literature on telecommunications policy, this thesis does not primarily aim to explain why reforms in the regulation of
telecommunications occurred. The literature on regulatory reform already offers a portrait of the various factors behind such major changes: technology, interests and ideas. My research places experts at the center of the inquiry, trying to understand the process through which they are recognized in the political arena and the circumstances under which they can influence policymaking.²

1.5 Case study

To fulfill my research objectives, I examined federal telecommunications policy in the United States. I stated earlier that the occurrence of a policy paradigm shift provides an excellent opportunity to observe jurisdictional competition among experts in the political arena. The American case exhibits such a shift. Indeed, liberalization policies have been adopted, and a transition from a monopoly to a competition model has been achieved. In 1996, Congress adopted the Telecommunications Act of 1996 which is mostly concerned with the liberalization of the local phone market (the long-distance market having been liberalized at the beginning of the 1980s). The selection of the American case also offers the opportunity to verify the hypothesis regarding the impact of decentralized and open institutions on policymaking and the role of experts. Indeed, American political institutions are very decentralized and fragmented and have a loose hierarchy. For instance, many organizations are involved in formulating telecommunications policies: the Federal Communications Commission (FCC), the Department of Commerce's NTIA (National Telecommunications and Information Agency), the Department of Justice's Antitrust Division, as well as relevant congressional committees.

² Moreover, my inquiry differs from Derthick and Quirk on another point. I examine the policy process in the United States at a more advanced stage, given that their investigation dates back more than a decade.
This case study was approached from a comparative perspective; insights from the liberalization of telecommunications services in France will also be included in the analysis. Indeed, in 1996, France also adopted a piece of legislation liberalizing telecommunications. A brief review of policy developments and the role of expertise in this case will be presented in the concluding chapter. The United States and France adopted similar policies, but present highly-contrasting institutional configurations. France's political institutions are very centralized and hierarchized in contrast to the American system. This contrast facilitates the study of the effects of institutions on expertise.

I should note that my case study relied on methods and concepts developed by public policy studies (see Lemieux, 1991). For instance, I distinguished between the different phases of the policy process (agenda-setting, formulation, implementation). Political actors carry this process forward; in addition to the actors usually examined by the public policy literature (elected/nominated officials and their party, bureaucrats and interests groups), I studied experts. In addition to the usual assets attributed to actors (financial resources, formal controls), I used the concept of cognitive authority. There is one branch of policy studies whose methodology can be useful for my case study: the policy network approach (see for example Coleman and Skodstad, 1989). This approach to policy analysis developed in the 1980s and 1990s focused on the relations of the organizations involved in policymaking. Looking at the State from a perspective, usually sectoral perspective, this approach examines the informal and formal structures underlying the policy process as well as the impact of these structures. My thesis used this sectoral view of State activities. I identified all the actors involved in the policy community of telecommunications policy, and the network of actors involved in the process which led to the adoption of the Telecommunications Act by Congress in 1996. However, in terms of focusing on the role of experts as a separate category of political actors, this approach did
Therefore, I turned to analytical tools developed by the discipline of sociology such as boundary-work.

This research relied on documentary sources and materials from interviews. Secondary documentary sources were used to create a general account of the policy process leading to the adoption of new telecommunications legislation. Scholarly articles, monographs, articles from newspapers and trade journals constitute most of this corpus. The full-text database "Nexis-Lexis" was the main source for newspapers and trade journal articles. Diverse primary sources were also utilized for this research. Government documents were the most important. They include transcripts from congressional hearings, written contributions to public consultations, annual reports, research reports, policy papers published by governmental agencies, legislative texts, and documents produced by policy institutes. The electronic index and database "Congressional Information Service (CIS) Index" was also used to track congressional hearings. Moreover, documents originating from experts on telecommunications were treated as primary sources. Academic articles published in journals, consultants' texts published in books or congressional records, and publications from policy institutes were all used to establish the positions and preferences of experts.

I also conducted a limited number of interviews with individuals who were either involved in the policy process or attentive observers. I first conducted twelve interviews in Washington D.C. for the American case, then eleven interviews in Paris and Brussels for the French case in 1997. For the first set of interviews, I met with three congressional staffers, six administration officials in various departments and organizations, and three policy institute experts in Washington D.C. For the French case, I interviewed four French senior civil servants, two European Commission officials, one economic expert closely involved in the process, and four observers (from university or research organizations). I proceeded to a second round of interviews in Washington, D.C. in 1999 with five participants or observers. Interviews were semi-structured and focused on a limited number of questions. Questions were focused on a few purposes. First, to reconstruct recent events that led to the adoption of the Telecommunications Act of 1996 and the Loi de réglementation des télécommunications. Second, material from the interviews was used to identify the role of
télécommunications. Second, material from the interviews was used to identify the role of expertise in the policy process. Moreover, the second set of interviews was focused on the criteria used in the political sphere to select experts and on confirmation of research findings. Interviewees were ensured confidentiality and were asked if they agreed to the taping of the discussion. In the case of interviews that were not taped, I relied on detailed notes taken during and immediately after the interviews. Most interviews lasted approximately one hour and were conducted in English or French, according to the interviewee.

The remaining parts of this dissertation will be divided into seven chapters. Chapter II provides background information on regulation and on American political institutions. I first present a brief history of regulatory policies in the United States and discuss the evolution of how regulation has been regarded in the political arena. Afterward, I sketch the institutional arrangements that define policymaking in telecommunications in the United States. Chapter III offers a description of the policy changes which have taken place in American telecommunications since the 1970s. It focuses on the most recent reform, the Telecommunications Act of 1996, and provides a first answer to the question of the influence of experts in the policy process. Chapter IV focuses on the other set of questions and identifies the main criteria used to select experts in the policy process. It does so by examining who are experts participating in the congressional hearings held to discuss the Telecommunications Act and earlier legislative attempts. In Chapter V, I give a more detailed look at congressional hearings and investigate the interaction between experts and policymakers in this peculiar political arena. This chapter addresses both the question of recognition by policymakers and the role of experts, mostly in terms of legitimization. In Chapter VI, I step back and take a broader view of the influence of expertise in policymaking. I examine the paths of influence from academia to policy institutes, passing through governmental agencies. In Chapter VII, I explore the question of recognition and competition among experts by evaluating which strategies they used to be recognized as competent policy advice providers. I also further examine the political nature of expertise. The final chapter presents a brief comparison of the American case study with recent developments in French telecommunications policy, takes stock of my findings and then makes some concluding remarks.
Chapter 2 Regulation and Institutions

2.1 Regulatory policy: Historical developments

Regulation is only one of many policy instruments governments can use to intervene in their national economies. The State can instead decide to spend money in a sector through subsidies or transfer payments or use instruments ranging from exhortations and the resort to symbolic politics, such as the establishment of a commission of inquiry, to the most coercive interventions, such as government ownership. The selection of one instrument over another can be explained by many factors. For example, Doern and Wilson (1974) propose that the least coercive will be chosen first, but if they fail to accomplish their task, more coercive instruments will be selected. Legal and administrative factors can also affect the selection. The separation of powers in a federal state is one example of such legal boundaries. Similarly, international trade treaties now greatly limit the use of tariff barriers as policy instruments.

The selection of regulation as a policy instrument can be explained by the hidden nature of the costs of this instrument. Indeed, Doern and Phidd (1983) argue that "the regulatory process has been a much less visible and focused activity than either the tax or expenditure process. ... Regulations obviously result in the allocation of resources, but these are, in the main, private resources, not governmental resources, though the latter are affected as well" (Doern and Phidd, 1983, p.305). Policymakers concerned with balancing the government's budget will also prefer this instrument because it has almost no direct impact on public spending. Moreover, national preferences and views on the role of the State in the economy can also affect the selection of policy instruments. Thus, the early and extended adoption of regulation as one of the favorite instruments of the American governments may be explained by less public support for public ownership. Indeed, in many sectors where their European
counterparts often opted for State ownership, American policymakers preferred to rely on state and federal regulators to supervise the industry.

Therefore, the American government chose to intervene in the telecommunications services industry through regulation and this took root during the Progressive era at the turn of the century. The Progressive era was characterized by greater federal government intervention in the national economy. Starting in the last decades of the 19th century, the federal government initiated many policies toward business. The antitrust policies were created during this period: the Sherman Act (1890), the Clayton Act (1914), the Antitrust Division (1890) and the Federal Trade Commission (1914) established American competition policy. Even though most Progressive era interventions were concerned with creating general rules for business behavior, industry-specific regulation was also born during this period. The first and most important federal regulation at the time dealt with the railroad industry. In 1887, Congress created the Interstate Commerce Commission to regulate this sector. The creation of this independent regulatory commission to supervise entry and rates served as an institutional model for future regulatory agencies. The independence of the commission was based on the Progressive belief in the separation of politics and administration. Administrative practices were to be isolated from political pressures and based on scientific principles for public management. The commissioners were appointed by the President and confirmed by Congress but could not be removed at will: they served terms of five or seven years. The composition of the commission had to be bipartisan. Moreover, it was to be staffed with experts possessing a relevant specialized knowledge. The Federal Reserve Board (1913), the Federal Power Commission (1920), and the many other independent commissions, including the regulator of telecommunications, were all based on this model. In addition to federal intervention, state governments also began to regulate industries during this period. They created public utility commissions which supervised rates for public utilities such as electricity, telephones and railroads.
In response to the Progressive view that government intervention was needed to prevent abuse from large-scale private organizations, the federal government began regulating interstate communications in 1910. However, the organization mostly responsible for this task at the time, the Interstate Commerce Commission (ICC), was mainly concerned with railroad regulation and was not active in communications. The supervision of the sector was scattered among the Federal Radio Commission (FRC), responsible for attribution of radio station licences and frequencies, the Postmaster, and the State Department.

The regulator of the telecommunications industry, the Federal Communications Commission (FCC), was created in 1934 during a period of expansion of the federal government. The creation of the FCC was intended to consolidate the federal regulation of interstate communications. Intrastate communications were under the control of the state public utility commissions: "The Communications Act of 1934 [which established the FCC] was drafted and was passed quickly, with very little debate. The act essentially was seen as an administrative consolidation. Its House sponsor pointedly said the House bill did not change existing law" (Horwitz, 1989, p.122). An interdepartmental committee set up by the Secretary of Commerce in 1933 recommended reorganizing the executive branch of government (Philips, 1965).

Therefore, the creation of the FCC does not seem to have been a direct reaction to interest groups or societal demands. There had been earlier complaints by the independent phone companies about AT&T's aggressive behavior. Indeed, around 1910, the independents complained to the Attorney General about the predatory behavior of AT&T, which was acquiring a great number of small telephone companies, and the inertia of the ICC in that matter. This complaint led in 1913 to the Kingsbury Commitment, in which AT&T promised to stop purchasing competitors and to give independents access to its long-distance system. Nevertheless, AT&T kept on
buying independent companies and by the 1930s, most independents were integrated into the Bell network and were prospering under its protection (Cohen, 1992). The ICC was supposed to supervise the acquisitions but almost never prevented AT&T from buying a company. AT&T was satisfied with this non-intrusive federal regulation and had no reason to fear that the new FCC would be problematic. One can argue that AT&T preferred federal regulation, especially this very loose supervision, to the more populist-oriented and active state regulatory commissions (Kolko, 1963).

The provisions of the Communications Act of 1934 were similar to the ones found in its precursor, the railroad regulations. The Commission could order connections between carriers, could require a common carrier to provide service to a client requesting it, and was responsible for delivering certificates of public convenience and necessity for the construction and operation of a new line. The Commission was also empowered to fix rates, to require AT&T to fill and observe rate schedules and investigate changes in rates. All rates had to be "just and reasonable" and not discriminate between different types of clients: "The commission may prescribe uniform accounting systems and depreciation charges, and may require records and reports. It was authorized to make evaluation studies" (Phillips, 1965, p.659) in order to be able to evaluate rate levels.

The first initiative of the Commission was to investigate the practices of AT&T and the industry in general. Little information was available to the Commission, which made it almost impossible to evaluate the correct rate level. This large-scale project lasted from 1935 to 1939. The investigation involved more than 300 people, mostly lawyers, accountants, and engineers, and cost 1.5 million dollars. More than 8,000 pages of formal hearings, 77 studies, and a final report resulted from this important investigation (Philips, 1965). The conclusions of the report stressed the need to regulate the industry in the public interest. The report noted that AT&T's monopoly
was a result of its strategy of buying the independent phone companies or, later, of including them in its integrated network.

The Bell system has consistently pursued the policy of obtaining control of a National-wide unified telephone system. Since its inception the watchword has been "One system, One policy, Universal Service." In achieving its present dominant position, the Bell system has been successful in the elimination of effective competition. There is today no competition ... Attempts at this late date to develop a strong, independent telephone system to compete with the Bell system would be futile. Protection of the rate-paying public by means of effective competition is now and for a number of years has been impossible. Protection of that interest must be accomplished through effective governmental regulation of the telephone industry (FCC, 1939, p.578-79, emphasis added).

The inquiry concluded that "Bell's system corporate structure has been manipulated to increase its profits by padding both the operating expenses and the valuations of the operating companies" (Fainsod et al., 1959, p.380). For example, the equipment manufacturing part of the Bell system, Western Electric, overcharged AT&T and the Bell operating companies. Other elements, such as depreciation charges and licence contract fees paid by associated companies, were also used to increase profits. AT&T would use the inflated expenses to justify rate increases. The investigators recommended that the FCC be granted authority to disapprove of Bell's depreciation calculations, plant expenditures, and intercompany contracts before, rather than after, these measures were be adopted. If effective regulation failed, the report suggested that "government ownership would be almost the only means remaining for attainment of telephone service at low costs" (FCC, 1939). AT&T organized an extensive campaign to attack the proposed report (Horwitz, 1989). As a consequence of this effort, the final report of the investigation was very diluted and the only action taken in reaction to it was a series of rate reductions.

The telephone investigation provided the Commission with sufficient information about the cost structure of the Bell system to enable it to operate a
"continuing surveillance" over the industry. From this point until the late 1960s, an informal process of rate negotiations between AT&T and the FCC stood in the place of formal evidentiary hearings (Horwitz, 1989, p.139-141). This process put the Commission in a very dependent position vis-à-vis AT&T because it lacked independent data. However, formal evidentiary hearings were so demanding in terms of time and resources that the understaffed Commission preferred to rely on informal negotiations with AT&T to decide on rate-setting. During that period, the FCC was generally deferential in its treatment of AT&T. It did not challenge the monopoly position of the company, and until the late 1950s, it actually protected the monopoly from any competitive entry. The regulator considered that a monopoly provision of telecommunications services was the best way to attain affordable and universal services, even though it entailed risks of abuses from AT&T. The regulator did not dare to challenge the company which was one of the world's most successful firms and was providing a satisfactory service. Therefore, from 1934 to the late 1960s the regulation of telecommunications was a very stable system with quite conservative outcomes.

The intensively close interrelationship between the basic goals of telecommunications regulation and the existence of the Bell monopoly meant that the FCC was loath to disrupt the integrated structure of the Bell monopoly or to challenge AT&T rate determinations. The FCC never had the ability or the means to effectively monitor AT&T rates and charges. Rather than regulate in a manner which could threaten the ongoing, reliable functioning of telephone service, the FCC consistently deferred to AT&T judgment (Horwitz, 1989, p.128).

As we shall see in the next chapters, the attitude of the FCC toward the AT&T monopoly changed in the 1970s.

The traditional explanation for the adoption of antitrust policies and economic regulation is that, at the end of the 19th century, small businesses and individuals felt threatened by the rise of large-scale corporations. Indeed, the creation of large trusts and the great number of mergers was an important feature of this period, and the
population expressed great worries about these trends. In the rural areas, the Granger and the Populist movements of the 1880s and 1890s denounced, among other things, the high prices charged by railroad companies to transport agricultural products, calling not only for regulation but in some cases for nationalization of the railroads. Other reform movements existed during this period in reaction to urban poverty and political corruption. The successors to these movements were the Progressives. The Progressive movement was distinct from its predecessors. Progressives had great faith in scientific and social-scientific knowledge as a tool to address social problems (Eisner, 1993). The Progressives believed in separating the political from the technical decisions and therefore granted a crucial role to expertise. In their view, the administration of government was largely a technical problem which could be solved by the principles of the administrative and social sciences. However, the experts should be independent and separate from the decision-making process, where values and ideologies confronted each other. Moreover, the Progressive movement considered institutional design crucial to their reforms. Proper institutions could help prevent corruption and the excessive influence of business on policymakers and they could ensure that administration and politics were clearly separated.

Therefore, the traditional explanation for the adoption of economic regulation is that policymakers of the Progressive era put forward new interventions in the economy aimed at limiting the concentrated power of business interests in response to popular demands. However, in the 1960s and later, the historiography of the Progressive era was extensively revised. The first to propose a revisionist explanation for the adoption of Progressive policies, Kolko (1963), "held that economic policy during the early years of the century was neither progressive nor liberal, but rather conservative, in the sense that it served the interests of large corporations seeking through public policy to protect themselves from the vicissitudes of an uncertain market" (Keller, 1990, p.4.). Indeed, Kolko argues that in spite of the large number of mergers taking place during this period in the American economy, the main trend was
toward increased competition: federal intervention was seen by business as a way to organize and rationalize the economy. Federal regulation was also preferred to state intervention because the latter was considered much more responsive to "the more radical, genuinely progressive local communities. National progressivism then becomes the defence of business against the democratic ferment that was nascent in the states" (Kolko, 1963, p.6). Following Kolko, Weinstein (1968) examined how progressive reforms were adopted with the approval and guidance of the large corporate interests, even though the original forces propelling change were the least privileged or the ones affected negatively by the new economic order.

Another perspective on the origins of regulation is proposed by Wilson (1980). He stresses the importance of a broad-based coalition in support of the creation of new regulatory initiatives. In a review of regulatory programs created in the Progressive era and later in the 20th century, he suggests that

sometimes industry was eagerly and happily a part of that coalition (as with the Civil Aviation Board and the public utilities commissions), sometimes it was a reluctant partner (as with the 1938 and 1962 drug amendments), and sometimes it was an outright opponent (as with much of the environmental and occupational safety legislation) (Wilson, 1980, p.365).

What can explain the composition of the coalition supporting the new regulations and the position of the industry in the policy process? Wilson proposes that the perceived distribution of costs and benefits resulting from any policy can explain the variation in business support for regulation. For example, when the benefits of the proposals are diffused but the costs concentrated on a small segment of the population, strong opposition from the industries which will bear the costs is to be expected. In such a case, policy entrepreneurs would be needed to mobilize support for the diffuse interests who would benefit from the adoption of the regulation. On the other hand, if the benefits of the prospective program are concentrated and the costs widely diffused, the small group of beneficiaries will have a greater incentive to lobby
for the policy than will the large group of payers. They will also have an easier time doing so. This scenario resembles more the one portrayed by Kolko.

After the Progressive era, other types of regulation were adopted. However, the previous policies were not replaced by new ones; rather they constituted an additional layer of regulatory sedimentation. New Deal policies were aimed at promoting economic stability: the Great Depression had triggered public demands for governmental intervention in the economy. The stabilizing policies adopted in the New Deal were responses to the demands of various groups: farmers, labor, business. The creation of quasi-corporatist arrangements to control prices through self-regulation and associationalism distinguished this turbulent economic period (Eisner, 1993). The need for stability also led to the creation of industry-specific regulation, based on the model of the regulation of entry and price in the railroad industry. New commissions were based on the progressive views on the role of independent institutions and on the role of scientific knowledge in public administration. During the New Deal, a long list of regulatory agencies targeting specific sectors were created, including the FCC in 1934.1

In the 1960s, a new type of regulatory policy appeared, the so-called social regulations. In enacting these policies, the legislators were not addressing concerns about economic matters; instead they addressed quality of life issues such as environmental protection or product safety. Consumer and environmental advocacy groups as well as policy entrepreneurs were supported by public opinion in their requests for such initiatives. The creation of the Environmental Protection Agency

1 Regulatory agencies created in the Depression/New Deal Period: Food and Trade Administration, 1931, Federal Home Loan Bank Board, 1932, Agricultural Marketing service, 1932, Commodity Credit Corporation (in Department of Agriculture), 1933, Federal Deposit Insurance Corporation, 1933, Federal Communications Commission, 1934, Securities and Exchange Commission, 1934, United States Maritime Commission, 1936, Civil Aeronautics Board, 1938 (Horwitz, 1989).
(EPA) and the Occupational Safety and Health Administration (OSHA) in 1970 were the central elements of this regime. This regulatory regime also included institutional innovations with the more open and participatory policymaking process. The costs of these new policies were borne by a small segment of the society, in this case the polluting industries, and the potential beneficiaries, the population at large, was a very diffuse group. Wilson's hypothesis would suggest that the polluting industries should have been able to block any further regulation as they formed a more cohesive lobbying block, but in this case policy entrepreneurs were able to mobilize the diffuse public interests to support further regulation in both environmental policy and occupational safety.

Starting in the late 1970s and continuing up to the present, regulatory policies have been challenged and this new period of policy change has affected all types of regulation. Regulatory reform and deregulation have become recurrent themes of the American political scene. The terms "deregulation" and "liberalization" are often considered equivalent in the popular political language. However, as I pointed out earlier, they constitute different public policies. Liberalization occurred in many industries: open entry into previously monopolized markets or markets with oligopolistic structures happened in transportation industries as well as in telecommunications. As for complete deregulation, it rarely occurred. The abolition of economic regulation in the airline industry and the closing of the regulatory agency in that sector, the Civil Aeronautics Board (CAB), is more an exception than a rule.

Regulatory reform, however, has taken place. A process of centralized regulatory review was first put in place during the Nixon and Ford administrations. First aimed at the Environmental Protection Agency (EPA), this review process required the regulatory agencies to notify a central executive office, the Office of Management and Budget (OMB) and later the Council on Wage and Price Stability, of proposed regulations and to submit analysis to support them. Under the Ford
administration, agencies were also required to assess the inflationary impact of the proposed regulation or rule. This process aimed to make the costs of regulation more transparent and to eliminate regulations which were too expensive.

In 1978, President Carter created a regulatory review group which put together representatives of various departments and bureaus, such as the Council of Economic Advisers. This review board had a mandate to evaluate only some very important regulatory initiatives and judge its inflationary impact on the economy. Through executive order, Carter also "required agencies to accompany each major significant rule with a regulatory analysis containing a statement of the problem, a discussion of alternative responses, an analysis of the economic impact of each alternative, and a detailed justification for the agency decisions" (Eisner, 1993, p.185). These measures introduced economic analysis in regulatory policymaking: economic criteria became central to determining whether or not a rule was justified.

The Reagan administration pushed the introduction of economic analysis further: "Regulatory action shall not be taken unless the potential benefits to society for the regulation outweigh the potential costs to society" (Executive order no.12291). Each major rule of the regulatory agencies had to be subjected to a cost-benefit analysis. Reagan also strengthened the enforcement powers of the review bureau and allowed it to delay any rules which did not satisfy the bureau. One of the results of the review process was the creation within the regulatory agencies of their own policy analysis and economics bureaus. In doing so, they were creating their own expertise to be able to argue and defend their positions when challenged by the OMB and other offices.

In the previous chapter, I discussed the main causes for liberalization and deregulation in the telecommunications sector: technology, business interests (producers and users) and economic ideas. The two latter are also the main forces
behind the new regulatory regime in the 1970s. Demands for regulatory reform and deregulation did not originate from the American public at large. Polls throughout the period show that the population strongly supported economic and environmental regulation as well as consumer protection (Eisner, 1993, p.173-175). Instead, the pressure came from business groups who considered the cost of regulation too high. They began to mobilize and organize to fight these policies. Intense lobbying efforts were coupled with the funding of research and publications at policy institutes which criticized regulation. Conservative think tanks such as the Heritage Foundation and the American Enterprise Institute became the leading institutions of this conservative movement. The main concern of the business groups was the so-called social regulations emanating from the EPA and OSHA, not the industry-specific regulations.

Business groups found political support in the executive branch. Indeed, the precarious economic conditions created by the stagflation of the 1970s made politicians eager for initiatives to attack inflation. "Although there is little to suggest that regulatory reform and deregulation had a significant impact on inflation, there is no question that presidents repeatedly presented their initiatives in this light" (Eisner, 1993, p.176). Therefore, centralized review bodies were created to supervise new regulations and to analyze their economic justification. The new regime was driven by a greater concern for corporate compliance costs and by a belief that, in most sectors, market mechanisms are more efficient and beneficial than is regulation.

Despite the very strong positions established in the 1980s by President Reagan against regulation and the campaigning from business interests, the majority of regulations were not eliminated through the regulatory review process. The environmental and other social regulations which business opposed vigorously were modified, but in most cases regulations were maintained.² It was the industry-specific

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² However, the budgetary cuts and the costs imposed by the regulatory review process
regulations, against which business interests in general and the regulated industries in particular had not expressed strong opposition, that have been the most affected by the deregulation movement. Demands from business groups may explain why the regulatory review process was created in the 1970s. However, business group pressure does not effectively explain the deregulation and liberalization which occurred in the 1970s and in 1980s according to Derthick and Quirk (1985). They argue, on the contrary, that the regulated industries often opposed deregulatory policies. The regulated industries were comfortable with the status quo and the certainty of their oligopoly or regulated monopoly. However, their opposition was not effective. Derthick and Quirk propose that the convergence of elite opinion in support of deregulation is a better explanation. The convergence of expert economic analysis supporting deregulation and growing bipartisan support for such reforms led to the deregulation of the airline and trucking industries.3

In other sectors where deregulation did not occur, such as air pollution or milk regulation, Derthick and Quirk argue that either the political divisions on the issue or the less developed body of economic literature can explain the lack of reform. Nonetheless, in transportation and to a lesser extent in telecommunications, the academic consensus and political leadership (presidents, commission chairs, congressional committee leaders) overcame the odds against liberalization and deregulation. Indeed, the economic theory of political change predicts that diffuse, ill-organized consumer interest groups will be subordinated to well-organized, concentrated business interests.

Were significant enough that they actually diminished the capacity of the various regulatory agencies to enact new regulations and enforce the existing legislation. 3 "Procompetitive reform then proved to have a broad political appeal, engaging liberals (led by Senator Edward Kennedy) who stressed the benefits of lower prices for consumers and an end to government protection of business, and conservatives (led by President Gerald Ford), who stressed the benefits of reducing the burden of government regulation in private markets" (Derthick and Quirk, 1985, p.238).
Horwitz (1989), while agreeing that political entrepreneurs armed with economic ideas were responsible for the regulatory policy change, believes that Derthick and Quirk underestimated the importance of the "material facts" which underlie the change in industry-specific regulations.

Because there was little direct relation between prices and costs in regulated services, there were built-in economic incentives for large users to bypass the regulated services with self-supply. This tendency was made worse by the consequences of regulatory activism during the period of inflation. Public interest group intervention often successfully kept the rate increases of basic services from rising as fast as inflation. In a fair rate of return system, where the slack had to be taken up somewhere, the cross-subsidy burden of large (generally business) users tended to increase. ... The same cross-subsidy arrangements created incentives for prospective competitors to try to enter the regulated business with a type of service designed to undercut the high prices caused by regulation and cross-subsidy arrangements (Horwitz, 1989, p.214).

Horwitz's proposition is related to those discussed in the first chapter that explain the recent regulatory reforms in telecommunications as being driven by corporate interests, producers or users of the regulated services. Business users considered that reforms would decrease their telecommunications expenses, and they supported deregulation and liberalization. Prospective producers were attracted to the industry, given the economic "distortions" created by regulation. This explanation seems plausible in the case of telecommunications; however, it cannot be easily applied to other sectors. Therefore, it seems that Derthick and Quirk are correct and that the convergence of expert and politicians' opinions on regulation is the most interesting explanation for the industry-specific regulatory changes which took place in the 1970s and 1980s.

It is important to situate the last phase of regulatory change in its broader political and economic context. The 1970s were years of important business mobilization in the United States, which led to the election of Ronald Reagan as president in 1980 (Ferguson and Rogers, 1981). Deregulation was only one demand from the industry, among many others. The increasing trade deficits triggered some
protectionist demands from declining or non-competitive industries, which were strongly countered by industries which benefited from an open economy: high-technology, internationally competitive businesses. Nevertheless, even internationally-oriented industries saw their profits squeezed by economic slowdown, inflation, and increased competition from abroad; the postwar system of economic growth in which wage increases were tied to productivity growth came under pressure. A new agenda based on "wealth distribution," which channels wealth toward capital instead of labor in order to restore profitability and growth, was now discussed. In that context of declining profit margins and international competition, regulations were decried as especially burdensome. The rise in political activity of American business in the 1970s took many forms.

Attempting to influence the political agenda and political outcomes, they [corporations] hired large numbers of lobbyists and lawyers, opened Washington offices, established and funded political action committees (PACs), expanded the size of their governmental relations staffs, developed sophisticated strategies for influencing public opinion and learned how to mobilize the "grass roots." This historically unprecedented level of business political activity at the federal level shows no signs of abating. Business political mobilization has become a permanent feature of contemporary American politics (Vogel, 1996, p.6, emphasis added).

Business mobilization to defend what was perceived as a threat to profitability and competitiveness also attempted to influence the climate of intellectual opinion. The strategy was focused on three institutions: the media, the university, and the research institute. These two last knowledge-producing institutions will be part of our inquiry, and it is therefore important to take into account the broader framework within which they manoeuvre. The relationship between the business funding of these institutions and recognition of experts will be discussed in Chapter Seven.

4These same industries, as well as the defence industry, were also supportive of greater military spending and presence in order to be able protect investment abroad, especially in not-so-stable Third World countries.
The mobilization of American business in reaction to difficult economic times was met with a very weak labor response. Organized labor has historically been weaker in the United States than in other industrialized countries. Moreover, the portion of the workforce belonging to unions kept on declining, as did the bargaining power of these organizations. Labor's influence within the Democratic Party also declined. Observers also argue that non-business organizations in general declined in the 1970s (e.g. civil rights, students organizations), preventing a public interest response to the business mobilization (Ferguson and Rogers, 1981). The "loose coalition of middle-class consumer and environmental, feminist and civil rights organizations ... which was able to influence both the terms of public debates and the outcomes of government policy in a direction antithetical to the interests of business" (Vogel, 1983, p.20) in the 1960s and early 1970s could not match the political activity of business interests in the 1970s and beyond. Explaining the weak response of non-business organizations is outside the scope of this research, but my case study can offer some insights into the activities of the business groups in telecommunications policymaking.
2.2 Regulation and formal knowledge

Policy change in regulation is not only induced by economic change and group demands. The history of regulation "is, in large part, a history of how people thought about and debated the nature of the market, economic efficiency, business social responsibility and acceptable levels of health and environmental risk in industrial society" (Berk, 1981, p.187). The position of the elites, interest groups and the public vis-à-vis these questions is formed by various factors, but agents of formal knowledge are especially important actors in organizing and structuring the debates about such issues. Many groups of experts, mostly social scientists, developed their own body of knowledge about regulatory policies: economics, political science, law and history. In the academic arena, no single group was able to monopolize this topic. As students of regulation, these experts attempt to answer a variety of questions, such as why regulatory policies are adopted, how they are maintained, and so forth.

More importantly for this research, the different scientific literatures about regulation represent distinct bodies of expertise to be used in the political arena. Not all groups studying regulation are recognized as relevant experts by policymakers. Professionals such as lawyers or accountants were most likely to staff the regulatory commissions and offices such as the Antitrust Division. However, since the late 1960s economists have increasingly been employed at these organizations. Moreover, their body of knowledge has come to dominate the political discourse on regulation, to the detriment of their adjacent jurisdictional competitors in the domain, such as lawyers.

The "world view" which dominated the policy discourse on regulation until the 1960s could be labeled the public interest view. Regulation was regarded as a protection of the public interest against specific shortcomings of the market. These shortcomings, the market failures, were sufficient to justify State intervention in the sector. The legal tradition of public interest and the discipline of economics provided
most of the elements of this policy paradigm. In the 1960s, a new policy paradigm challenged and slowly replaced the previous one. A new body of research in economics supported this change. The economic theory of regulation proposed that producers, i.e. the regulated industries, dominate the regulatory process and use it to their benefit. This new vision also stressed the cost of governmental regulation, arguing that a market failure in itself is not sufficient to justify intervention. The cost of the regulation must be weighed against the cost of market failures. The remaining part of this section will describe these two visions of regulation.

The concept of public interest has been important in justifying regulatory policies in the past. Public regulation of private business violates, in principle, the American Constitution. When, therefore, is an industry so central that the usual privileges of private property give way to the duties attached to public service? Between 1877 and 1934, the American courts attempted to establish criteria to distinguish between business "affected with a public interest" and the ones that were not. The first legal opinion in 1877 was that "property does become clothed with a public interest when used in a manner to make it of public consequence, and affect the community at large... In other words, when it becomes a practical monopoly, to which the citizen is compelled to resort, and by which a tribute can be exacted from the community, it is subject to regulation by the legislative power." 5 Other criteria were added to that of monopoly; use of public streets, and the broader definition of public interest included such activities such as fire insurance. In 1934, the court put an end to the attempt to define the specific legal basis for restraining business freedoms in order to protect the public interest (Phillips, 1965). Any sector of the economy the policymakers considered necessary to regulate to protect the public could be subject to regulatory measures.

Despite this vague meaning of the notion of public interest, legislation creating regulatory bodies often referred to it to explain and orient regulatory actions. The justification for early regulatory policies also grew out of the more specific concept of public utility. Economics textbooks defined public utilities as industries distinct from competitive industry because of their intrinsic importance as infrastructure of an economy; transportation, energy, and communications were viewed as essential to the functioning of all other sectors (Garfield and Lovejoy, 1964). The other major defining characteristic of a public utility was the monopolistic form of its market structure. The notion of natural monopoly is based on various characteristics of the cost structure in a market. The main characteristic of a natural monopoly is the presence of economies of scale of such magnitude that one firm can produce at a lower cost than can two or more competing firms.

The true natural monopoly situation is determined by economies of scale. Competition may exist for a time, but only until bankruptcy or merger leaves the field to one firm. Competition is self-destructive and results in a waste of scarce resources. ... But the mere fact that a monopolist is allowed to exist does not assure the public of obtaining the benefits of whatever lower costs are achieved. In fact, the monopolist might absorb not only the benefits from the lower cost but also might raise prices. Consequently, the presence of a monopolist calls for some degree of public regulation (Phillips, 1965, p.22-23).

Moreover, very heavy investments in fixed assets are required to enter a public utility industry. In such an industry, "decreasing costs per unit of service result as production approaches ultimate capacity" (Garfield and Lovejoy, 1964, p.17). A monopolistic situation allows the firm to reach this level where it is profitable to operate. Finally, public utilities markets distinguish themselves by the non-elasticity of the demand and the "weak" position of the consumer. Even if the price of the public utility product increases or the income of the consumer decreases, the consumption of a product such as electricity, gas, or telephone services remains stable. The product (or service) is considered indispensable by the consumer. The weak position of the buyer refers to the difficulty of switching from one company to another even when competition did exist. For example, the competition between different types of energy providers is
quite imperfect when a consumer of gas energy wants to change to electricity, because such a change also involves changing home appliances.

Apart from the classic case of market failure, natural monopoly, imperfect competition was another case of market failure used to justify governmental interventions. Imperfect competition can take different forms. Ruinous or destructive competition is one example in which prices are reduced to a point where firms operate at a loss for an extended period of time. These "price wars" lead to the bankruptcy of some of the competing firms, which can be especially damaging in sectors such as banking.

As regulation diversified and expanded to different sectors of the economy, economics textbooks pointed at other market failures which would necessitate governmental intervention. Externalities are another type of market failure which was seen as requiring regulation. "Negative externalities are costs borne by third parties as well as the producer and consumer. A company that gets rid of used chemicals by dumping them alongside the roadway, causing the public to pay for cleanup, is externalizing part of its production costs" (Gottron, 1982, p.8).

The discipline of economics also provided the tools to operate the most important part of regulation, i.e. rate regulation. The question of unfair or discriminatory prices has indeed been at the center of the regulatory edifice; therefore, the regulation of prices has often been the central task of regulators. The latter have to establish the rate level, i.e. the total revenue required by the regulated firms. To do so, they have to evaluate the operating costs of the firms plus the value of their property (minus depreciation). Moreover, a "fair" rate of return (a profit) must be allowed for investors to be interested in such ventures. In order to be able to appraise the operating costs and the value of the property of the regulated firms, the regulators must have accounting tools in their hands. Moreover, once the rate level has been
determined, one has to decide on the rate structure—the prices to be charged to different clients for different services. Cost allocation, and therefore the determination of rate level and structure, can be a quite complex business, especially in sectors such as telecommunications where the production of services relies mostly on fixed costs. This complexity enabled a number of economists and accountants to work as technical support staff in the regulatory agencies.

In the late 1960s and early 1970s, the policy paradigm based on the protection of the public interest against the failures of the market faded and was replaced by a new one. It was supported by new theories and empirical work which were emerging within the discipline of economics. According to the neo-liberal economic theory of regulation, it was necessary to end regulation and the granting of monopolies because of the economic inefficiencies caused by regulation. It was argued that "regulatory agencies typically maintained artificially high prices by protecting corporate owners, management, and union members from competition" (Nelson, 1987, p.62). For highly organized private interests such as private firms and unions, the impact of regulatory policies is very concentrated and thus these groups have great incentives to defend their interests. In contrast, the diffuse costs and benefits of regulation for consumers create much weaker incentives for them to get involved in lobbying regulators and policymakers.

The critiques of regulation did not only originate within economics. As discussed earlier, historians, such as Gabriel Kolko, challenged the belief that regulation was protection of consumers against corporations, and proposed that business interests seek protection to shield themselves from the dangers of uncoordinated competition. Political scientists also studied the question of the capture of regulatory agencies by the regulated. The first of these, Bernstein (1955) argued that regulatory commissions went through a life cycle from "crusading spirit," to maturation to debility; the reforming zeal of the government bureaucracy at the
beginning of the regulatory process would eventually run up against strong opposition and the superior knowledge of the industry. With the waning of public concern with the issue at hand, the industry would eventually tame the government bureaucracy. Over time, the agency would settle into a routine and the industry would slowly be able to capture the regulatory agency which originally set out with such high ideals. At this stage, the agency would become the protector of the status quo and of the interests of the regulated firm.

Other political scientists discussed the capture of regulatory commissions. McConnell (1966), in a book dealing with the power of private corporations in the United States in general, argues that "the outstanding fact about the independent regulatory commissions is that they have in general become promoters and protectors of the industries they have been established to regulate" (McConnell, 1966, p.287). Lowi (1969) argued that independent interest groups were able to control regulatory commissions because of the delegation of authority to the commissions and the vagueness of the statutes ruling them.

Economists also discussed the capture of the regulatory agencies. However, the political strength of the economists' contributions, especially their influence in the political arena, resided in their ability to quantify regulatory inefficiencies (McCraw, 1975). Moreover, economists attacked the premise that market failures were sufficient to justify regulation, and they provided empirical studies of the various inefficiencies linked to regulation. A consensus developed within the discipline challenging the goals and instruments of the regulatory policies. The quasi-absence of dissension within this group of experts provided a strong cognitive tool for persuasion in the policy arena.

Although it restated what had been already advanced in the history and political science literature, George Stigler's 1971 article, "The Theory of Economic
Regulation", proved highly influential in debates concerning regulation (Mitnick, 1980; Derthick and Quirk, 1985; Eisner, 1993). His central argument is that "as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit" (Stigler, 1971, p.61). Every industry with enough political power will seek to utilize the coercive power of the State in order to control entry and prices in its sector as well as to receive protective tariffs. Other economists presented general arguments on how regulatory agencies can be "captured" by powerful interests (Petlzman, 1976; Becker, 1983; MacAvoy, 1970; Noll and Owen, 1983).

In addition to this research, many economists undertook studies of specific regulated industries such as transportation, showing the high costs of regulation (Breyer and MacAvoy, 1974; Caves, 1962; Douglas and Miller, 1974; Meyer et al., 1959). A review of more than 150 economic publications on regulation found "a virtually unanimous professional consensus that price and entry regulation in several multifirm markets is inefficient and ought to be eliminated" (Joskow and Noll, 1981, p.8). An economics textbook from 1989 provides a nice contrast with the textbooks of the 1960s (Spulber, 1989). The public interest language is abandoned and the notion of efficiency is stressed; the notion of market failure as a base for intervention is challenged. Spulber's book examines the "areas of market failures in which government may improve resource allocation. Of course, market failure in itself is not a sufficient argument for regulation. As Posner (1977) points out, government failure can be a costly alternative" (Spulber, 1989, p.21, italics not in text). Moreover, even the presence of a natural monopoly as the basis for regulation is challenged. Economists within or related to the Bell Labs developed the contestable markets framework, which argued that a market with no barrier to entry or exit but with only one or a few firms selling the service or the product can reach a market equilibrium, thanks to the threat provided by potential entry (Panzar and Willig, 1977; Baumol, Panzar and Willig, 1982). In such markets, economies of scale are not considered
legitimate justification for intervention, as "contestability" or potential entry replaces regulation of prices.

The new economics literature on regulation became very influential in remodeling the policy paradigm which governs regulatory policies (Derthick and Quirk, 1985; Eisner, 1993; Hood, 1994). The notion of regulatory capture by private interests, and the emphasis on the inefficiencies of regulation, as well as the move away from the view that market failures are sufficient to justify intervention, have modified the way issues of regulation are discussed in the political arena. Through the 1970s and 1980s, many regulations have been eliminated or modified in response to this new vision. This new regulatory regime provides a broader context for the adoption of a new policy paradigm in telecommunications. Before moving on to describe and discuss the political transformations which occurred in American telecommunications policy, I will use the remainder of this chapter to discuss the institutional framework within which these changes took place. Institutional configurations can affect the elaboration of public policies and in particular the influence of experts on this process.

2.3 American political institutions

In the first chapter, I mentioned how political institutions can influence the nature of policymaking in a country. The open, fragmentary, and non-hierarchical nature of American institutions has been said to ease the entry of new experts in the administrative apparatus, to facilitate the adoption of new policies, and to make the consolidation of policy change more difficult. In this section, I provide a brief description of the institutional configuration of the United States and, in particular, of the institutions involved in the elaboration of telecommunications policy.
The primary characteristic of American policymaking institutions is the fragmentation of political authority. American political institutions were designed to fragment authority. Indeed, various institutional mechanisms were created to prevent the concentration of power in the hands of one person or one group. The separation of powers between the legislative, the executive, and the judicial branches aimed at preventing any one leader or group from controlling the government. Unlike parliamentary systems, the executive branch is elected independently of Congress and is attributed a number of specific roles: implementing legislation by leading the administration, selecting its Cabinet and secretaries, conducting foreign policy, and commanding the armies. Congress is mainly responsible for preparing and adopting legislation. The division of power is exacerbated by the bicameral nature of the legislative branch. Despite their differences, the Senate and the House of Representatives are real partners in policymaking; both must adopt a bill in order for it to become law.

Even though each branch is granted its own sphere of authority, the system of "checks and balances" created by the Constitution ensures that each actor can intervene in the other's sphere. For instance, the President is responsible for nominating the heads and senior officials of the federal departments and agencies and the ambassadors, as well as for conducting foreign policy. However, the Senate possesses the powers of confirmation of Presidential nominations and of treaty ratification. The executive branch's control over Congress is best illustrated by the veto power of the President, which can block any legislative proposal and can be used as a tool to convince Congress to modify a bill to the Administration's preferences. The overlaps in each branch's jurisdiction bring about the multiplicity of veto points in the policy process and a great decentralization of accountability. Indeed, the blocking points in the American political system are numerous. For a policy to be adopted, it must be accepted at the sub-committee and committee levels of both chambers, the Senate and the House of Representatives, and then voted on by both houses. The
President holds a veto over every piece of legislation, and the court can review all laws alleged to be unconstitutional.

Besides the separation of the legislative and executive branches and the system of "checks and balances," the federalist structure of the American political system is another element adding to the fragmentation of political authority. The constitutional allocation of governmental powers between the states and the central government describes the jurisdiction of each level. However, federalism has evolved greatly since the early days: "A term such as intergovernmental relations more accurately describes the complex crazy quilt of overlapping authority and interdependence among levels of government" (Peters, 1996, p.23) which characterizes American federal-state relationships nowadays.

In addition to these built-in fragmentation mechanisms, the American institutional framework exhibits a decentralized bureaucracy with a rather loose hierarchy. U.S. administrative organizations can be classified in two groups: the executive departments and the independent agencies. The head of a department, the Secretary (or the Attorney General in the case of the Department of Justice), is nominated by the President with the consent of the Senate, as are the deputy and assistant secretaries. Some agencies, such as the EPA, are independent from any executive department but are still responsible to the President. Many others, such as the independent regulatory commissions, are not directly subordinated to the executive branch. The commissioners are nominated by the President but cannot be removed from their position before the end of their term. The number of commissioners is always odd, with one individual nominated as the chairperson. The commissions themselves are created by an act of Congress, often with broad and vague mandates. Therefore, the commission (not only the commissioners but the whole bureaucratic apparatus which supports them) possesses great flexibility and autonomy in developing its own policies.
The institutional configuration of telecommunications policymaking in the United States is remarkable for its multitude of actors and its fragmentation of authority, thus reflecting the features of the general institutional framework. The executive branch's authority over telecommunications issues is divided between the Antitrust Division of the Department of Justice (DOJ), the National Telecommunications and Information Agency (NTIA), and the Executive Office of the President and the Vice-President. The Antitrust Division is responsible for the application of laws concerning anticompetitive behavior in every industrial sector, including telecommunications. As we shall see in the next chapter, this office is responsible for the break-up of the telephone monopoly and the liberalization of the long-distance industry. The NTIA is part of the Department of Commerce and is responsible for advising the executive on telecommunications matters.

The Executive Office of the President includes the various advisors of the President distributed among a number of offices. Apart from the White House office, which is staffed with personal aides to the President, the Council of Economic Advisers (CEA) is an important source of advice on regulatory affairs for the executive. This small advisory group is responsible for keeping the President informed on economic matters (the Chairman of the CEA meets the President regularly) and for publishing an annual report on economic policies. The members of the Council are usually senior university professors or researchers at major policy institutes, and they work at the CEA only for a short time (one or two years). The Council's reports mostly deal with macro-economic policies, but regulatory matters and especially telecommunications policy have increasingly been discussed in recent years. Finally, since 1992 the Vice-President's Office has played an active role in telecommunications policies because of the personal interest of Vice-President Gore in that subject.
As we shall see in the next chapter, Congress can be an important actor in the making of telecommunications policy. Compared to many parliamentary regimes, the American legislative branch has real powers in terms of initiating, making, and adopting policies and it is not entirely controlled by the executive. The separation of the executive from the legislative branch results in an assertive Congress. Congress has the jurisdiction to legislate on telecommunications but has passed only two important pieces of legislation on that topic: the Communications Act of 1934, which created the federal regulatory commission responsible for telecommunications, and the Telecommunications Act of 1996. Nevertheless, Congress has been active in the area for years and has repeatedly attempted to enact new legislation in the 1970s and early 1980s.

Most of the legislative work of Congress takes place in committees. The central congressional committees overseeing telecommunications are the Senate Commerce Committee, the House Judiciary Committee and the House Committee on Energy and Commerce. There have been on going jurisdictional battles between the two House committees about telecommunications. Therefore, both examined legislation and held hearings. The great majority of bills introduced in Congress are examined at the subcommittee level. Sub-committees hold public hearings where groups and individuals are welcome to present their points of view on the legislation under scrutiny. Moreover, the sub-committee holds mark-up sessions, i.e. examination article by article of the bill, during which it is possible to almost rewrite the whole proposal. Afterward, the bill is referred to the standing committee which can also hold hearings. The chairman is the most influential person on a committee. He or she has the ability to set the legislative agenda by refusing to schedule a bill for debate, to call for meetings or hearings (and therefore to attract attention from the public), and to control the committee funds and staffing arrangements.
In addition to its legislative power, Congress has a general oversight power over the bureaucracy, which can be performed by budgetary controls or oversight hearings. Oversight hearings are part of the "checks and balances" system. Congress is responsible for supervising the actions of the federal bureaucracy. With the growth of independent regulatory commissions, congressional oversight has become especially important in retaining control over the agencies. These hearings are a way for members of Congress to investigate practices and decisions, as well as to show their concerns for popular issues or problems. For example, oversight hearings were often called by the relevant committees in the 1980s to discuss the consequences of the AT&T break-up.

Also involved in the telecommunications policymaking community are the courts, which have the authority to review administrative decisions, not only on constitutional grounds but on substantive grounds as well. For example, a court can review an agency decision on the basis that there is not sufficient empirical support for it. The judiciary had and still has a critical role in the management of the industry, especially the Federal District Court of the District of Columbia. Indeed, the antitrust suit against AT&T was filed by the Department of Justice in 1974 in this federal court. The supervision and management of the 1984 Modified Final Judgment (MFJ) granted a central role to Judge Harold Greene of the U.S District Court of D.C.

Federalism further divides the power to control the telecommunications industry between the federal level and the state level. The federal government has jurisdiction over interstate communications, whereas the state authorities control the economic activities within their boundaries. Therefore, each state has a public utility commission which supervises entry in the local phone industry and local phone rates.

Finally, the telecommunications industry in the United States is regulated by an independent agency, the Federal Communications Commission (FCC), which
supervises rates and entry and is responsible for complaints from consumers and competitors. The American telecommunications industrial structure has always been under private management, with AT&T as the overwhelmingly dominant provider of telecommunications services until the 1980s. The current organization of the FCC is similar to most independent regulatory commissions. It is headed by five commissioners, one of whom is designated chairman. The commissioners are nominated for five years by the President and confirmed by the Senate. The FCC is not considered part of the administration or of the executive per se, unlike the Department of Justice. It is an independent agency and Congress exerts only a right of confirmation of nominations and of general oversight. In 1996, the FCC's staff amounted to 1,705 employees distributed among six bureaus: common carrier, cable services, international, mass-media, wireless, and field operations (FCC 1996 Annual report). The Common Carrier bureau supervises telecommunications services offered to the public at large and is regarded, with its staff of 330, as the most important one for telecommunications policy. In addition to the bureaus, the FCC includes ten other offices. One of these departments, the Office of Plans and Policy (OPP), is of special interest to this research, as it is a main source of economic and technical advice to the Commissioners. The Office, mostly staffed by economists, conducts research, is responsible for contract research funded by the Commission, and develops long-term policy objectives.

2.4 Conclusions

This chapter first provided a brief overview of the evolution of regulatory policies in the United States. From the construction of general rules for the operation of the market of the Progressive era, to the creation of price-and-entry controls and to the advent of environmental and safety regulation, regulation has been the preferred policy instrument of American governments. However, the recent period of regulatory
change has been a more challenging one for advocates of regulation. Indeed, the lobbying by business interests claiming to suffer from regulation, combined with an academic critique of such intervention created a momentum for policy reversal. The notion of "deregulation" entered the political arena and had an impact in many sectors. Nevertheless, deregulation was not as extensive as some had wished, especially in relation to social regulation.

Secondly, I reviewed the academic rationale for regulation. The earlier views on regulation were supportive of this type of governmental intervention. The legal and economic rationale relied upon the notions of public interest and natural monopoly to justify such actions. The new economic theory of regulation revised this framework. In what I labeled the "neo-liberal" economics of regulation, governmental initiatives are usually seen as harmful to the economy. This new approach greatly influenced views on regulation in general and provided the framework for recent recommendations by economists about regulation of telecommunications in particular.

Thirdly, I described the main features of the institutions governing the regulation of telecommunications. Amidst the intricacies of policy-making in the American telecommunications sector, some patterns can be discerned.

For the most part the FCC and the Antitrust Division of the Department of Justice, abetted by the courts, have managed to control the policy agenda and its outcomes. The White House and Congress have acted too slowly and too much in response to the initiatives of the agencies to influence the overall development of policy. ... The result has been policy constructed by technocratic experts, bureaucrats, and judges that is largely beyond the control of the general public and elected representatives (Symons, 1990, p.277-78).

The reassertion of Congress' role in telecommunications policy in the 1990s has brought back some democratic control over this policy sector.
After providing background information necessary to understand the context within which the telecommunications policy shift occurred, I now focus on changes in telecommunications policy per se. The next chapter presents the evolution of telecommunications policy since the 1970s and the role the FCC and the Antitrust Division took in the reforms. I also examine congressional efforts to legislate on telecommunications services, which finally led to the adoption of the Telecommunications Act of 1996. Despite its fragmented nature, Congress was indeed able to adopt a piece of telecommunications legislation, after years of failed attempts.
Chapter 3: American Telecommunications Policy in the Making

The previous chapter identified different phases in the evolution of regulatory policies in the United States. The most recent phase is characterized by greater reliance on market mechanisms and greater concern with efficiency. In the telecommunications sector, this shift began in the 1970s with decisions by the FCC to gradually open some segments of the industry to competition. Usually, new regulations did not replace the previous ones; rather, the new policies were added to the previous ones. For instance, environmental and safety regulations did not substitute for economic regulations but were juxtaposed to the existing rules. However, the most recent regulatory regime in which authorities are increasingly concerned with compliance costs and efficiency was applied to all sectors of the existing regulations. Therefore, regulation of telecommunications was created in the first part of this century and was not modified in important ways by the coming of social regulations. The principle of "public interest" protected by administrative agencies through rate setting was introduced in the Progressive era and was subject to little change until the emphasis on market mechanisms and efficiency arose in the 1970s and 1980s.

This chapter describes the emergence of a new regulatory regime in the regulation of the telecommunications industry. The first FCC decisions liberalizing some segments of the industry in the 1970s began a process which led, in 1996, to the adoption of federal legislation reforming the regulation of the telecommunications services industry. Indeed, the Telecommunications Act of 1996 was the result of a long policy process. More precisely, it was the last episode in a series of policy changes which unfolded from the late 1970s and included many failed congressional attempts to legislate. Indeed, the transition from the previous policy paradigm to the new "neo-liberal" paradigm was not a swift change. The United States was certainly the leader for the introduction of competition in the telecommunications service
industry. The political debates of the 1970s witnessed a transformation in the political discourse about the sector. Competition then became considered as a possible and desirable policy option in telecommunications. In the 1980s, major steps toward liberalization were taken. But it was not before the adoption of the recent Telecommunications Act that competition as a policy option was consolidated. The first and second sections of this chapter highlight the early stages of this process. The third section recounts the making of the Telecommunications Act of 1996.

3.1 Telecommunications policy in the 1970s and early 1980s

For most of the twentieth century, AT&T held a private monopoly in the United States over the supply of telephone services. A great number of small independent companies existed, but did not represent a danger to AT&T dominance. Prior to 1984, AT&T was the largest firm in the world with about one million employees. In addition to AT&T Long Lines and twenty-two local and Regional Bell Operating Companies (RBOCs) which provided phone installation, transmission, repairs and published phone directories, the Bell system included Bell Laboratories and Western Electric, the manufacturer of telecommunications equipment used throughout the whole network. The Bell system was never formally granted the legal monopoly over the provision of telecommunications services in the United States. Nevertheless, it enjoyed a de facto monopoly which the policymakers came to consider as a good policy option as long as regulators were overseeing the system.

The first breach in this quasi-monolithic system came in the 1970s. The development of telecommunications policy was the subject of rivalry between three main institutional actors: the Federal Communications Commission (FCC), the Antitrust Division of the Department of Justice (DOJ) and Congress. The fragmentation of American policymaking described in the previous chapter is clearly
reflected in this inter-institution rivalry. Beginning in the first half of 1970s, the FCC took the policy initiative in shaping future telecommunications policies. The first rulings concerning competition allowed limited entry of competitors in the provision of private telephone lines.1 In 1972, the FCC permitted competition in the provision of satellite communication services, and in the transmission of processed information in 1973.2 The FCC also ruled that companies and individuals could connect their own equipment to the AT&T network.

Even if these early decisions allowed competition in segments of an industry which was previously completely monopolized, they were not the result of a change in FCC philosophy. These decisions "were undertaken not on the basis of a theoretical rationale which advocated head-to-head competition with AT&T. Rather, given AT&T's inability or slowness in meeting specific demands, and faced with heavy lobbying from major corporations, the FCC reasoned that new entry would mean new services which were unlikely to have any significant adverse effects on AT&T" (Horwitz, 1989, p.232). The testimony in congressional hearings of the FCC chairman in 1976 confirms this view. Chairman Wiley declared that in order to maintain universal service and reasonable rates, "the FCC has refused-- and intends to continue refusing -- to authorize the establishment of competitive communications systems which propose to offer services essentially identical to basic telephone service." 3 This

1 Private lines are point-to-point, dedicated phone lines reserved for specific customers, not connected to the public exchange network (see FCC decision Specialized Common Carrier Decision, 29 FCC2d 870 (1971).
2 See Packet Communications Inc., 43 FCC 2d 922 (1973). This decision permitted communications networks utilizing digital technology to package, store and transmit data at high speed. These new entrants were called Value-Added Network (VAN) or value-added carriers. This decision created the distinction between basic services and enhanced services which include some sort of processing.
position seems to confirm the idea that regulatory commissions have been captured by the industry they ought to supervise. Their decisions about competition were made with the assumption that they would not in any way affect AT&T's status.

Nevertheless, the cumulative effect of these initiatives was to erode AT&T's monopoly, to produce an example of liberalization in the industry, and to provide the basis from which new entrants could expand their activities. Moreover, court decisions widened the space for competition in telecommunications services. In 1977, the Court of Appeals allowed MCI to offer long-distance services, reversing a FCC ruling. One can argue that, starting in 1977, the FCC more clearly abandoned the public interest view for the pro-competition one. The NTIA's chief during the Carter administration, Henry Geller, publicly supported open competition, and the administration appointed Charles Ferris as a "reform-minded chairman" at the FCC. The pro-competition and deregulation positions were now clear. For example, in its Computer II Decision in 1980, the Commission eliminated regulations on customer-owned telephone equipment and lifted the regulations to which Value-Added Network (VAN) providers were subjected.

Another important FCC ruling concerning competition was the access charges decision. Access charges are interconnection charges paid by the consumer for the origination and termination of long-distance phone calls on the local exchange network. The FCC adopted the access charge plan in 1982; this consisted of a two dollar monthly charge for residential users and four dollars for business users. The decision was taken in reaction to a court ruling overturning an FCC decision in 1977 (FCC annual report, 1983, p.48). The Commission had, in 1975, refused to authorize MCI to provide a service (Execunet) duplicating AT&T's message toll service. The District of Columbia Court of Appeals decided that the FCC had no legal basis to enforce AT&T's monopoly. Even if the entry of competitors was still marginal, the Commission needed to establish interconnection charges for them because the division
of revenue between the local and the long-distance was, up to that point, internal to the Bell system.

The opening of various segments to competition by the FCC and the District of Columbia Court triggered debates in Congress and aroused the desire of legislators to take back control over policymaking in telecommunications. Moreover, AT&T lobbied Congress heavily to move the debates about competition away from the FCC and the courts, where it was losing battles, toward the legislative arena. These two factors sustained a continued congressional effort to adopt a new Telecommunications Act from 1976 until 1982 when the Department of Justice (DOJ) short-circuited the legislative process.

The assertion of congressional authority began in 1976 when the House Subcommittee on Communications held exploratory hearings on competition in the telecommunications industry. In those hearings, the participants and witnesses mostly debated the value of competition in the telecommunications services market and the role of the FCC. The hearings were unofficially examining the bill H.R.12323, commonly referred to as the "Bell Bill." This proposed bill was drafted by AT&T and designed to prevent competition. It explicitly forbade entry in any telecommunications market unless the new entrants could prove that the Bell system was currently unable to, and could not in the future, provide the same service. Despite support from many members of Congress, from independent phone companies and state public utility commissioners, the bill was rejected in the subcommittees where it was examined. The new and future entrants, consumer groups, the FCC and some expert witnesses strongly criticized the proposed legislation as too radical. The workers' unions such as the Telecommunications International Union (TIU) and the Communications Workers of America (CWA) did not formally support the legislation but, in their testimony in
Congress, they were very critical of the FCC's decisions allowing competition and worried about its impact on employment.

The debates during these hearings and the ones held in the Senate the next year present an interesting case of adversarial use of expertise to support one's position. In their use of expertise, the debates resembled controversies over science and technology. The most studied scientific controversies are disputes about the health risks associated with certain industrial or commercial practices or the moral or religious implications of a scientific theory or practice. The debates about competition as a well-founded policy choice for telecommunications exhibited features similar to scientific controversies. In the case of telecommunications policy, economic expertise became a political resource used by all participants. As Nelkin put it, "expertise is reduced to a weapon in the political arsenal of competing groups" (Nelkin, 1992, p.xix).

On the one hand, AT&T and the independent local companies argued that the entry of new competitors in the telecommunications field was threatening the integrity of the entire network at two levels. First, at the technical level, connections with customer-owned equipment to the network could potentially create malfunctions in the telephone network. Competition was also considered a threat to the economic integrity of the system. The AT&T chairman and CEO argued that

to encourage the widest availability of service, the telephone companies have historically sought to keep the rates for local service within the reach of all. To fulfill this aim, long-distance service and certain specialized services have been traditionally priced sufficiently above their direct costs to produce higher contribution to the common costs of the business than does basic exchange service. Also, we have traditionally averaged costs in setting rates. We charge different customers within an exchange the same rate even though one might be on the edge of town and one right next door to our switching center
when obviously the cost of it is different. In short, we have traditionally averaged the costs in setting rates.  

In order to support these claims, AT&T presented three studies on costs and pricing undertaken by Bell Laboratories. To strengthen the credibility of this in-house research, the Bell system asked independent experts and consulting firms to examine the methodology and the conclusions of these studies. Moreover, a study from the consultant Arthur D. Little on the negative impact of competition on technological innovations was presented to the committee.

Opponents to the "Bell Bill" strongly disagreed with the economic evidence put forward by the Bell system. The FCC challenged the Bell findings. Richard Wiley, the chairman of the Commission, argued that the claim that subsidies flow from business services, long-distance and other services, to the basic local service was not supported by evidence. On the contrary, he argued that AT&T underpriced its private line services, which are business-oriented services; hence, these activities did not provide the financial resources to support basic service. A very outspoken opponent of the bill was Alfred Kahn, an economics professor and the chairman of the New York State Public Service Commission at the time. He discussed in detail the studies from commission staff which asserted that terminal equipment did not contribute to holding down the prices for basic service. In his oral and written testimony, he strongly argued for competition and against "subsidization" of basic service.

I ask you only to consider how alien it is to our traditions, and how inefficient also in economic terms, to grant a powerful company a governmentally-
protected monopoly in certain markets, in order to enable it to extort monopoly profits with which to subsidize other services. 7

There is a good deal of language here about the undesirability of duplication. Duplication is not necessarily unnecessary and wasteful. [...] How do we distinguish duplication that is an inescapable and desirable part of competition from the duplication that is wasteful. In this country, the tradition is to leave that decision to competition itself. 8

The three firms offering telecommunications services in competition with the Bell system joined forces and created the Ad Hoc Committee for Competitive Telecommunications (ACCT). The committee commissioned three studies that discussed the importance of telecommunications for the economy and challenged AT&T's claims about natural monopoly, economies of scale and subsidization of basic service. 9 The testimonies of the ACCT presented the results of these three studies and also used the FCC's economic reports to attack AT&T studies. 10

7 Ibid., p.990.
8 Ibid., p.975.
9 Professor Manley Irwin, University of New Hampshire, Information Transfer and Public Policy: Competition or Nationalization; Professor Arthur D. Hall, University of Pennsylvania; Professor William Melody, University of British Columbia, Competition and Natural Monopoly in Regulated Telecommunications
10 From the testimony of Gus Grant, President of ACCT: "To generate sufficient public pressure to force Congress to overturn decades-old policies favoring competition in telecommunications wherever feasible, AT&T and its allies have produced studies which purport to quantify the impact of competition on residential telephones rates. The FCC examined these studies and, frankly, it was not impressed. In fact, in the Commission's recently adopted decision in the 'economic impact' inquiry, the FCC concluded:

"In its Embedded Direct Costs (EDC) studies, AT&T attempts to demonstrate that local rates could be increased as much as 70% or more if the presence of competition were to cause the elimination of all revenue 'contribution' above directly assigned costs for its interstate and intrastate (other than basic exchange) services... However as we discuss fully in the main report, Bell's analysis is so flawed as to its underlying assumptions, data, and computational methods that is incapable of demonstrating that the revenues from competitive services even cover their costs, much less that they are making any real contribution toward covering the cost of basic telephone services." Competition in the Telecommunications Industry: Hearings before the Subcommittee on Communications, House Committee on Interstate and Foreign
The adversarial use of expertise led to deconstruction of the evidence presented by the parties. The various "layers" building a scientific fact were unbundled; the methodology for collecting and analyzing the data was challenged, and the interpretations of the results were criticized. A participant to the debate, Edward Larkin from the National Association of Regulatory Utility Commissioners (NARUC), recognized the challenge that controversial evidence represented for policymakers. "One of the great problems we have is that everybody does cost studies. We have been deluged with them. Of course, people who take one side of this argument will use cost studies and say: There you are, what more do you want? The other people who have other cost studies will say: Of course, they are wrong." 11

Apart from the economic evidence submitted by the industry, the FCC and state public utility commissions, few independent experts were invited to congressional hearings in 1976-77. Some scientists specializing in telecommunications technologies testified in 1977, but limited their comments to describing the new technologies without deriving policy recommendations. 12 When questioned about their opinions on preferable policy or regulatory choices, they all declined to answer. "We, technologists, are willing here to share our technical knowledge, and we do have ideas about regulation; but it is premature to discuss any specific regulatory procedures or ideas" (p.611). "One must examine whether economies of scale would overwhelm

11 Ibid., p.955.
12 Domestic Telecommunications Common Carrier Policies: Hearing before the Subcommittee on Communications, Senate Committee on Commerce, Science and Transportation, March 21-22, 1977. The experts were Dr. John Pierce, professor of electrical engineering, California Institute of Technology; Lee Davenport, president of GTE Laboratories; Dr. Walter Baer, the Rand Corporation; Lewin Branscomb, chief scientist IBM Corp.; Davis Ruth, Director of the Institute for Computer Sciences and Technology; and Professor L. Licklider, Department of Electrical Engineering, MIT.
benefits of competition. These are murky issues, and certainly they are not technical issues" (p.651). (In chapter seven, I will come back to the importance of the boundary between "technical" and "political" for technologists and engineers.)

In 1978, a bill was introduced in the House which aimed at rewriting the Telecommunications Act of 1934. "The major issue driving the debate in 1978 has shifted from that of 1976. In 1976 the major issue was one of whether competition should be permitted and sanctioned in the telecommunications industry. By 1978 that question had been answered in the affirmative and not just by the FCC. In 1978 the debate pivoted around the issue of how competition in telecommunications would be accommodated" (Persons, 1995, p.110). Even AT&T accepted the coming of competition and transformed itself to adapt to it: changes in the leadership and company structures were made to respond to the challenge (Quirk and Derthick, 1985, p.190). The new bill, H.R. 13105, proposed to allow competition but would let the FCC decide which telecommunications markets were to be liberalized, according to the absence of market deficiencies. The bill aimed at a broad restructuring of the industry, but it included too many vague provisions about how to introduce competition in a market with such a dominant player. The following year, a similar bill was introduced in the House but was no more successful (H.R. 3333).

In 1980, H.R. 6121 was on the table in the House of Representatives' Communications Subcommittee. It was less encompassing: it specified where and how competition should be allowed. First, competition was to be permitted in the enhanced and long-distance telecommunications services markets. AT&T would also have been permitted to enter almost all telecommunications markets if operations were through separate subsidiaries to prevent cross-subsidization. The bill also provided for a system of access fees to finance the costs of interconnection and local service. Like its predecessors, this bill failed to become a law, but for different reasons. A
jurisdictional battle between the House Judiciary Committee and the Interstate and Foreign Committee (under which the Communications Subcommittee served) was one of the reasons for the failure. Another reason was opposition from the FCC and the Justice Department, which feared that the bill would have negative effects on ongoing antitrust litigation against AT&T.

In 1981, Congress's interest in telecommunications shifted to the Senate and was focused on the theme of deregulation. "Deregulation was an overarching strategy and theme of the first-term Reagan presidency. Deregulation in effect became the overarching new policy theme, defining the major problem of government — too much regulation— and offering a solution: a major diminution of the federal regulatory role. The long-running debate over telecommunications policy fit well within this strategic and conceptual framework" (Persons, 1995, p.127-28). Bill S.898 was very similar to the House proposal of the previous year, H.R.6121, but was framed by the context and discourse of deregulation instead of focusing mainly on competition. The bill was adopted in the Senate and was pending in the House when the Department of Justice announced its agreement with AT&T over the antitrust litigation. This agreement short-circuited years of efforts by Congress to assert its leadership in telecommunications policymaking.

The agreement marked the end of the first phase of the new regulatory regime. The general agenda had been set. The previous paradigm of regulated monopoly had been challenged by the introduction of some competition. As discussed earlier, a new set of economic formal knowledge was promoting competition as well as deregulation. Regulatory reforms in other sectors such as transportation had been taking place. However, the nature of American political institutions prevented early changes in telecommunications, especially at the legislative level. The administrative apparatus, in this case the Department of Justice, was more capable of taking the first important step
into the new regime. This was also the case in the deregulation of transportation; it was the political entrepreneurship of Alfred Kahn at the Civil Aeronautics Board (CAB) that resulted in the first initiatives to deregulate the sector, not Congress.

The decision of the Antitrust Division to break up AT&T was an example of quite autonomous action from the State, as there was no public demand for this action. Why did AT&T agree to divestiture after spending millions of dollars in legal fees resisting it? It has been proposed that AT&T considered the advantages of such actions from its perspective.

AT&T profits from the long-distance service, required by regulators for local service subsidies, were being deeply eroded by the entry of independent long-distance carriers upon whom regulators had imposed far lower subsidization requirements. Consequently, AT&T let the DOJ do what the regulators would never have let the company do on its own: divest its low-profit local exchange operations, leaving it free to focus on competing in the long-distance and equipment markets (MacAvoy and Robinson, 1983, p.1).13

This conclusion would bring us back to the argument made by Kolko and Weinstein about the non-conflictual, but accommodating, nature of the relationship between business interests and State intervention.

3.2 Developments from 1982-1992

The end of AT&T's monopoly came in 1982 with the divestiture of the firm through an agreement between the Antitrust Division of the DOJ and AT&T. The agreement was the result of a long-time pending antitrust suit filed by the DOJ in 1974. The DOJ had accused the company of anti-competitive practices in the provision of telecommunications services and equipment. The Department tried to break up the vertical integration that allowed such control over the market. It was the second time

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13 The narrative of the AT&T divestiture proposed in Coll, 1986 supports this proposition.
in the century that the DOJ had settled an antitrust suit with AT&T. However, in the Consent Decree of 1956, the firm avoided divestiture. It was restricted to providing services only in the non-competitive, regulated segments of the telecommunications market. The 1982 agreement was therefore filed as a modification of the 1956 Consent Decree after which the agreement had to be approved by the Federal District Court in Washington D.C. The judge responsible for the examination of the agreement, Judge Greene, held hearings and received comments from a variety of actors on the proposal. In 1984, in what is called the Modified Final Judgment (MFJ), Judge Greene accepted the agreement with some modifications to the original settlement.

The MFJ allowed competitors to enter the long-distance market while allowing AT&T to keep Bell Laboratories and Western Electric. However, it forced AT&T to withdraw from the local phone market where seven regional monopolies were created. The MFJ specified the restrictions with which the newly created Regional Bell Operating Companies (RBOCs) had to comply in exchange for the benefit of being the monopoly providers of local service in their area. These restrictions concerned the lines of business they were forbidden to enter for fear that their position in the local market would give them unfair advantages. Indeed, one of the major arguments for the divestiture of AT&T was that the monopolistic control over the local exchange network constituted a "bottleneck," that is, facilities every provider of telecommunications services must use. If the Bell system had continued to provide both long-distance and local service, it could prevent competition in the long-distance market by not connecting the competitors to its local network or by charging them very high interconnection prices, which would put them at great disadvantage. If the consumers of AT&T competitors (MCI, Sprint, etc.) could not be connected to the local network, their phone calls could not reach the consumers of AT&T or other
providers. The value of a network is its ability to link a great number of people, and it is at its maximum if everybody is connected to the same network.

Moreover, the creation of local exchange companies independent of AT&T was motivated by the fear of cross-subsidization. When a firm has a monopoly in one sector, it can overcharge its customers in that market and use these additional moneys to lower its prices in the competitive markets such as long-distance. By lowering its rates in the competitive markets temporarily under cost, this firm can drive its competitors out of business. Given these risks, the MFJ insisted that the newly created RBOCs could neither offer information and long-distance services, nor manufacture telecommunications equipment. The MFJ also barred them from entering all other lines of business other than telecommunications and exchange access.

The MFJ pointed to the primacy of the Antitrust Division and the DC Court in terms of policymaking power. Formally, the Congress had priority over the other institutions but was not able to bring legislation forward. Institutional arrangements provide the best explanation for congressional powerlessness. The many veto points of the legislative process in the American institutional configuration make it more difficult to adopt a legislative initiative. As an official from the Antitrust Division explained:

It's much harder for elected officials with all the entrenched interests and the money and the rest, to agree on a policy, a strong policy, to pass it and implement it. In this country, our antitrust laws and our ability to enforce those laws led to this dramatic change, the break up of AT&T. We didn't have to have legislators voting on it, we didn't have to craft bills and make compromises. ... Even though it's right that Congress wanted to take back this process into a legislative framework, so much was made possible by the fact that our antitrust laws were there and were vigorously enforced. It might have been very difficult to achieve it otherwise.\(^{14}\)

The MFJ set the stage for the regulatory debate for the following decade. The newly created Bell Operating Companies, which offer local phone services, challenged the MFJ before the ink was even dry. They sought changes in the line-of-business restrictions that were imposed on them in every arena available to them: the courts, the Department of Justice, the forums of public debate and by lobbying members of Congress. The MFJ allowed the filing of modifications of the line-of-business restrictions through waiver requests from the RBOCs to the Department of Justice and the District Court. From 1984 to 1994, 309 waiver requests were filed with the Department and 266 with the Court (Rubin and Deahbakhsh, 1995). Each request concerned a specific business the RBOCs wanted to enter, but many of them were dealing with information and wireless services; the majority of the requests were successful. Thus, the sections prohibiting the RBOCs from any business outside telecommunications and exchange access and from information services were lifted respectively in 1987 and 1993. In 1994, the RBOCs also initiated legal action to completely vacate the MFJ.

In addition to their very vigorous legal battles against the line of business restrictions, the RBOCs were also active on the congressional front. Starting in 1986, there had been sustained congressional activities on the lifting of some of the restrictions. In March 1986, the House held hearings to consider a bill (H.R.3687) which would remove the restrictions on the provision of information services and on the manufacturing of telecommunications equipment. The lifting of the ban on the provision of long-distance services was also discussed. From 1987 to 1992, the House

16 Motion of Bell Atlantic, Bellsouth, NYMEX and Southwestern Bell to vacate the decree (1994) US v. Western Electric Co and AT&T Company, civil action no.82-0192(HHG).
of Representatives and the Senate held several hearings on the lifting of the line-of-business restrictions and many legislative proposals were examined. They were all targeted at removing the restrictions on the manufacturing of telecommunications equipment and the provision of information services. For example, in 1990, an attempt to legislate on the restriction on the manufacturing of equipment was made in the Senate Commerce Committee (S.1981). However, the full Senate never took action before the session expired. In March 1991, a similar bill (S.173) was introduced in the Senate and in the House, "signaling that there had been no dimming in the last year of Congress's new interest in seizing oversight of the telecommunications industry from Federal District Judge Harold Greene." 17 However, the House failed to pass the bill. Moreover, the Senate Subcommittee on Communications held oversight hearings to discuss on going FCC proceedings. For example, in 1987, hearings were held on the Open Network Architecture plans filed by the RBOCs and on the adoption of price cap regulation.

Despite continuous legislative activity, none of the congressional initiatives attempted between 1982 and 1992 were successful. 18 Nevertheless, the new regulatory regime was continuing to unfold. Not only the political discourse on regulation was restructured around concepts such as economic efficiency and the

18 This lack of policy action does not have to be automatically interpreted as a failure. Indeed, one ex-congressional staffer saw very positive effects of congressional involvement. "I think if you look back over all the legislation that has been introduced from 1978 on, both in this House and in the Senate, that it's striking to me how common the main themes are that run through that legislation. All the bills favored competition and marketplace forces over government regulation and monopoly. […] The fact that Congress has yet not passed the domestic telecommunications bill to me is not a sign of failure on the part of this body, because in fact what Congress did, ... was to push others to make decisions and to take actions that it, for whatever reasons, could not do itself" Harry Shooshan, Transition in the long-distance telephone industry, House Subcommittee on Telecommunications, Consumer Protection and Finance, Committee on Energy and Commerce, February 19 and 20, 1986, p.27.
superiority of market mechanisms, but new regulatory measures were implemented. For example, in 1989, the FCC adopted a new method to set telephone rates; it replaced the rate-of-return regulation with price caps. The FCC argued that this method would increase efficiency: according to the economic literature, rate-of-return regulation creates incentives for the regulated firms to overcapitalize, to engage in wasteful or risky projects (for abstract of this literature see Sherman, 1989, Lyon, 1994). Economists argued for rate regulation which would more closely approach market results and proposed "incentive regulation" of which price caps are one possible variant. The proposition in 1987 by the FCC to adopt price caps was met with support from the industry, especially AT&T, but with opposition from consumer organizations (residential and business users) and from Democratic members of Congress. A bill was actually introduced in the House Telecommunications Subcommittee in 1988 to challenge the proposal by requiring the FCC to provide "explanatory notes, supporting materials, and quantitative data that demonstrate by clear and convincing evidence that both business and residential telephone ratepayers will obtain comparable or better services at lower rates" with the adoption of price caps (Shields, 1991, emphasis added). Nevertheless, after a second proceeding and intense negotiations with Congress, the FCC adopted price caps. It has been regarded, with other pricing practices, as one of the best specific examples of how neoclassical economics can influence public policy (Berg and Tschirhart, 1995; on other pricing practices see Faulhaber and Baumol, 1988). Regulation of telecommunications was increasingly driven by market mechanisms or strategies which emulate them, and by concerns for economic efficiency.

Despite the lack of congressional action, the telecommunications industry remained very dynamic throughout this period. This dynamism could be seen in almost all segments of the industry. Following the break-up of AT&T, the numbers of companies offering long-distance telecommunications services grew continuously. For
instance, in 1992, the long-distance calls market was divided among hundreds of firms. AT&T's market share declined to 60.8%, MCI's climbed to 16.7%, Sprint had 9.7% of the revenues of the long-distance sector, and hundreds of smaller firms, many resellers and some owning their own facilities such as Worldcom, also provided services around the country. Only eight years earlier, AT&T controlled 90% of the market. The growth in demand for long-distance communications services throughout the period was such that the absolute revenues of AT&T remained stable.

Alternative technologies such as wireless transformed the industry and added to the industry's dynamism. Indeed, the explosive growth of communications networks such as cellular telephone was another important trend. In December 1992, there were over 1500 cellular phone systems in the United States with over 11 million subscribers. This sector was still in its infancy eight years earlier with less than 100,000 subscribers in 1984. One should note that despite the diversity of cellular providers, 25 of those carriers covered more than 80% of the population, with the Bell regional holding companies accounting for seven of the top ten operators. The advent of new wireless technologies such as broadband PCS (Personal Communications Services) was making this sector even more dynamic.

Even the local telephone market showed signs of change, despite the virtual monopoly of the Bell companies. Indeed, in the early 1990s, some "new entrants" started to offer local telephone calling services; these were often affiliates of cable television companies such as Time Warner Communications. Actually, the RBOCs were increasingly becoming involved with the cable television companies with the objective of entering local phone markets outside their own region. For example, in

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19 FCC, Common Carrier Bureau Website, Industry Statistics.
1993, Bell Atlantic announced the acquisition of the biggest cable operator in the US, TeleCommunications Inc. (TCI). This would allow Bell Atlantic, after investing to upgrade the TCI network, so it could carry two-way voice and data, to offer local telephone service in every state outside its home market. US West was adopting a similar strategy with Time Warner cable systems, the second largest system after TCI.\textsuperscript{21} Despite the scale and number of mergers and acquisitions in the telecommunications industry at the time, the local market remained a monopolistic one. In 1993, the revenues of all 20 non-RBOCs providers of local services amounted to $178 million, representing 0.2% of the $80 billion of nationwide revenues.\textsuperscript{22}

The international telecommunications market was also very energetic during this period. The demand for international communication was growing at a spectacular rate of 15% to 20% annually (about twice as fast as the domestic traffic). Investment in equipment to meet this demand reached $100 billion a year. Alliances between the major telecommunications providers was another strategy used to meet the demands of international corporate users. These large users were already seeking one-stop shopping for their telecommunications needs. In one instance, AT&T joined an informal alliance with foreign partners such as Japan’s KDD, Singapore Telecom, Telecom New Zealand, and Australia’s Telstra to offer their corporate customers this type of service.\textsuperscript{23} Competition in the international and domestic telecommunications markets was becoming fierce, but American telecommunications companies were soon to face a battle outside the marketplace; their lobbyists were getting ready to invade the halls of Capitol Hill over the emerging telecommunications bill.

\textsuperscript{21} \textit{The New York Times}, “From Sibling Rivalry to Civil War”, November 28, 1993, Section 3, p.1
3.3 The Telecommunications Act of 1996

3.3.1 The Democratic majority

The campaign and the election of the Clinton administration in 1992 marked the beginning of a new period of congressional interest in telecommunications legislation. The Administration, and especially Vice-President Al Gore, expressed great interest in the matter. Then, key members of Congress in the relevant committees proposed new telecommunications legislation. In June 1993, Republican Senator Danforth joined with Democratic Senator Inouye to introduce Bill S.1086 which aimed at opening the telephone and cable TV markets to competition. The bill would have allowed competition in the local loop but would not permit Bell companies to offer long-distance phone services. In November 1993, the RBOCs formally requested Senator Danforth to include such modification in the bill.

Senator Danforth wanted the chairman of the Commerce Committee, Senator Hollings, to also sponsor the bill in order to recreate the strong bipartisan support which allowed the Cable Act to be adopted in 1992. But Senator Hollings only joined them later in 1994 when the House had introduced Bills H.R.3626 and H.R.3636. In January 1994, Representatives Dingell and Brooks, respectively Democrat and Republican, introduced a bill (H.R.3626) that would end the line-of-business restrictions on the RBOCs, and permit them to petition the FCC and the Department of Justice for the right to provide long-distance services. The FCC authorization could be granted if the Bell’s application was "consistent with the public interest, convenience and necessity," defined as the probability that rates would be reduced or that the firm would not use anticompetitive pricing against its competitors in the long-distance market. The DOJ would have had to base its decision on the criterion that the RBOC could not use "monopoly power to impede competition in the market such company seeks to enter" (HR 3626, p.6). Once the authorizations were granted, the Bell
companies could only enter the long-distance market after a waiting period of five years.

Representative Markey, Chairman of the House Telecommunications subcommittee, sponsored Bill H.R.3636 proposing to open the local loop by granting equal access to RBOCs' facilities for any telecommunications provider and allowing the FCC to pre-empt state regulations against local phone competition. The bill also included provisions allowing the Bell companies to offer cable TV services. Both bills were examined by the Committee on Energy and Commerce and the Committee on the Judiciary because both these House committees claimed jurisdiction over telecommunications matters. They both held hearings in January and February 1994. The House adopted the bill in June 1994. The representatives of the Administration from the Department of Justice and the Department of Commerce supported the bill, as did the FCC chairman. The Communications Workers Union also supported the bill, arguing that allowing the RBOCs to compete in new markets would improve the employment situation in the sector. The Consumer Federation generally approved the bill but demanded amendments concerning universal service. They proposed a list of principles to ensure affordable rates. For instance, they argued that "local service should be a low mark-up service. Local rates presently bear a disproportionate share of the burden of joint and common costs."24 Many industry representatives appeared before the Telecommunications subcommittee. The Bell companies obviously did not endorse the provision of the bill which obliged them to wait at least five years before being authorized to offer long-distance services.

At the beginning of 1994, Vice-President Gore presented the principles that the Administration wanted telecommunications legislation to respect. In addition to the adoption of a bill in the House, it offered another cue for Senator Hollings' entrance to the policy process. During the last part of 1993, the Administration held weekly meetings in order to set policy objectives in the telecommunications sector. Senior officials of the Commerce and the Justice departments met with the Vice-President as well as with representatives from the Council of Economic Advisors, Office of Management and Budget, and Office of Science & Technology Policy. The Administration had prepared a bill but did not present it; members of Congress had already spent a lot of time and energy negotiating the current bills and they did not want the Administration to disturb the situation. Instead, the Vice-President put forward general guidelines about the type of policy the administration would favor, thus granting de facto support to the bills being discussed in Congress. Principles such as competition, private investment, universal service, Federal pre-emption of state rules and flexibility in regulation were the themes he discussed in his speeches.

Once the House bill was moving forward and the Administration presented its position, Senator Hollings joined with Senators Inouye and Danforth and introduced a much broader telecommunications bill, S.1822. This bill explicitly allowed

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27 "In fact, Gore really wanted its own legislation and wanted to send the Administration bill. Well, he got the message pretty quickly from the House chairman that they already had put the bill together and they did not want to see a Gore bill. ... The other thing that happened is that once the House passed its bill and Gore announced the Administration objectives, that's when Senator Hollings decided: It's time for me to get involved. So, early in 1994, Hollings was the chairman of the Commerce Committee in the Senate and he said, it's time for me to have my own bill. He went to Danforth and Inouye and agreed to work with them and the other members of the committee to pull a bill together." Interview with congressional staffer, tape 5, February 28, 1997, Washington, D.C.
competition in the local phone market but included very restrictive conditions about how and when the RBOCs could enter the long-distance market. The RBOCs had to prove to the FCC, in consultation with the Department of Justice, that there was "actual and demonstrable competition" in their local market before being allowed into the long-distance market. Actual and demonstrable competition was defined as the existence of at least one competitor whose services are offered "predominantly over facilities not owned or controlled by the RBOC or its affiliates and are comparable in geographic range, function, quality and price to the service offered by the petitioning RBOC and subscribed to by a significant number of persons in each relevant area." 28 The long-distance service offered by a RBOC would have to be provided through a separate subsidiary, and the waiting period of five years included in S.1086 was removed from the bill.

To have local competition, new entrants need to be able to interconnect with the incumbent's network. The version of S.1822 published in January 1994 specified that the FCC would be responsible for the regulation of interconnection so that fair and reasonable infrastructure sharing arrangements were ensured. The Commission also would have to regulate to guarantee non-discriminatory access to facilities, poles, ducts, conduits, information and to network functions on an unbundled basis. The FCC was also made responsible for defining universal service and determining its cost and the contributions of each telecommunications carrier.

The Bell companies strongly opposed the bill, given the restrictions that they had to face in order to be able to offer long-distance services, and they convincingly lobbied members of the Commerce Committee not to support it. This opposition forced the chairman of the Committee, Senator Hollings, to negotiate directly with the

RBOCs. During the summer of 1994, the committee staff engaged in negotiations with the Bell companies and the competitive side of the industry in order to move toward the RBOCs’ demands.29

In late July 1994, these negotiations succeeded and the Commerce Committee approved a new version of Bill S.1822. The clause calling for "actual and demonstrable competition" in the local markets before allowing the Bell companies into the long-distance market was removed. The Department of Justice had to evaluate the possibility that the RBOCs could use their monopoly power in the telephone exchange to prevent competition in the long-distance market. The FCC had to authorize the RBOCs entry if "consistent with public interest, convenience and necessity." When granting an authorization, the regulator also had to consider if it would benefit the consumers, the effect of the RBOCs entry on rates, the availability of alternative providers of local phone service in the area, the potential for cross-subsidization or anticompetitive behavior by the RBOC, and the existence of barriers to entry for competitors in the local market.30

S.1822 did not pass in 1994. Indeed, the Bell companies considered that the bill still made it too difficult for them to enter the long-distance market. Therefore, they wanted additional changes made to the proposed legislation. They went to the

29 "The Bell companies were not happy at all. They opposed the bill. It was far too onerous on them for the long-distance ... So, they went around to the rest of the Senate and pretty much convinced everybody else not to co-sponsor and that they should oppose the bill. So, Senator Hollings realized: 'If I really want the bill to pass, I am going to need to negotiate with the Bell companies.' So we at the staff level started engaging negotiations. We met over the course of four of five months over the summer of 1994-- every Tuesday morning with the competitive side of the industry; every Friday morning we met with the Bell companies. But the basic purpose was to move in the direction of what the Bell companies wanted, if we were going to make progress. ... Well, in late July, we reached a deal." Interview with congressional staffer, tape 5, Washington D.C., February 28,1997.
30 S.1822, 103rd Congress, 2nd Session, September 1994, p.246-47.
minority leader of the Republican party, Senator Robert Dole, and asked for his support. Senator Dole and his staff went back to the Chairman of the committee, Senator Hollings, and presented the changes that the RBOCs wanted as non-negotiable demands. These were not acceptable to Senator Hollings. The modifications would have eliminated the MFJ two years after the enactment of the bill, and this would have allowed the RBOCs to enter the long-distance market without entry requirements. Senator Dole's proposal was also more deregulatory in the sense that it proposed to remove requirements for carriers to file their tariffs with the FCC or to obtain authorization for constructing or expanding facilities. The bill was withdrawn because the co-sponsors considered that the differences between S.1822 and the bill Senator Dole wanted adopted were too great to be resolved before the elections in November.31

31 “The official story was that Dole was concerned that it [the bill] was too regulatory. It was too specific in its prescriptions of how things happen. Dole and others thought the Democrats versions of the long-distance entry delayed BOCs entry for too long. ... Unofficially, I am sure that the RBOCs were tugging at people’s coats.” Interview with NTIA official, tape 1, Washington, D.C., February 26, 1997.
3.3.2 The Republican majority

The 1994 elections brought the first Republican majority in Congress in forty years. This historic election was led by Newt Gingrich and his “Contract with America,” a dozen of procedural and substantial policy changes to be adopted within 100 days of the election. Indeed, one of the main messages of Gingrich’s Republicans was that once they were in the majority, they would take swift action on a range of issues, since they would be united as one voting block against the Democrats. This political context put pressure to produce quick results in telecommunications legislation in the House of Representatives as well as in the Senate.

The Republicans in the Senate began to draft a new telecommunications bill. Under the supervision of the new Chairman of the Commerce Committee, Republican Senator Pressler, the Republicans and Senate Majority Leader Robert Dole reached an agreement in mid-January 1994. The internal process put Republicans such as Senator Dole who favored “aggressively deregulating and quickly unleashing the Bells” in opposition to Republicans like Senator Pressler who preferred to limit the Bell companies’ entry into long-distance until competition existed in the local exchange. The agreement would have allowed Bell companies entry into long-distance after a period of three years even if there was no local competition. Given the importance of the theme of deregulation for many Republicans, a section on the "end of regulation" was added to the draft. This internal compromise was then put in legal language and presented to the Democrats for support. The new telecommunications bill was very deregulatory, as the “date-certain” approach did not require FCC authorization for Bell companies entry. It was also silent on universal service. A Democratic staffer commented during my interview that, at that point, some “Republicans were very
deregulatory in their approach and they wanted to prove to business they were going to go further.”

The Democrats were frustrated by their exclusion from the drafting process, and were very opposed to the new bill. Negotiations to bridge the large gap between the two parties occurred from mid-February to mid-March 1995. As one analyst from a conservative think tank narrates:

[The new bill] started out very well, but very quickly we saw problems developed from a conservative free-market perspective, where Republicans obviously were trying to extend an olive branch to their friends on the left side of the fence, some of the Democrats in Congress. They started giving up on important issues, on universal service issues in particular. They really set themselves up to create a series of new entitlements ... I managed to get a hold on the initial draft that was about to be released and saw that on universal service, something disastrous was about to happen. ... This was the beginning of the unraveling of the perfect bill we hoped for. While the conservative coalition at that time in Congress and outside of Congress was initially very optimistic about looking ahead, it very quickly became obvious that things were not going to be as perfect as they might have seemed at first.

What this analyst calls “extending a olive branch” is the need for cooperation among members of Congress in order to move a bill forward. Congress’s institutional arrangements are such that a simple majority in the Senate is not sufficient to ensure the passage of a bill. A majority of 60 senators out of 100 is needed to override a filibuster, or other blocking procedures. But, as a congressional staffer explains: "It had been a long time since the Republicans had been in charge, especially in the House—since the 1950s. For forty years, the Democrats had been in charge. So, there was a lot of very excited rhetoric in the House. Republicans are taking over, we will ignore the Democrats and go on with our agenda. ... But it became clear over the next months, in the House and the Senate, they realized that there was no way they

33 Interview with policy institute analyst, Washington, D.C., February 27, 1997.
were going to this without some Democrats supporting them.” Even in the House, where a simple majority can rule without much support from the minority, cooperation can occur. The norm of reciprocity can explain the influence Democrats had on the bill, even after Republicans took over Congress. One Democratic staffer explained this practice in these terms:

Normally, a bill introduced by Republicans in the House without some Democratic support, if you didn’t co-sponsor it and you were fighting various provisions, they would not let you in the inner circle, having a direct influence on it. In our case, we were. Because [my boss] had treated Republicans in a bipartisan way, kept them included in what we drafted, the [Republican chairman] felt that he should reciprocate. So, we had a staffer involved from the very beginning.  

As a result of the need to cooperate, Republicans made compromises and Democrat views were increasingly included in the bill. In consequence, the draft of the bill became a negotiated hybrid between the Dole plan and the Hollings’ bill. The resulting compromise, S.652, was introduced by Senator Pressler in March 1995. The interconnection arrangements were not under the sole responsibility of the FCC anymore as in S.1822, but were primarily negotiated agreements between a telecommunications carrier and the local exchange carrier (the RBOCs). In case of prolonged negotiations, one of the parties could ask the State regulatory commission to arbitrate the arrangement. If the regulator had to decide the price for interconnection, his decision would be based on the cost of providing the unbundled element and could include a reasonable profit.

As for the RBOCs’ entry into long-distance, the Pressler bill was quite different from the Democratic version. Firstly, only the Commission, and not the Department of

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34 Interview with congressional staffer, Tape 5, Washington D.C., February 28, 1997, emphasis added.
Justice, had to grant authorization for entry. Moreover, the language about public interest, effects on rates and consumers' benefit disappeared and was replaced by a checklist of competitive features with which the RBOCs had to comply. By guaranteeing non-discriminatory access to network functions, to poles, ducts and conduits, to 911 and directory assistance services, the bill aimed at ensuring that nothing would bar entry for new competitors into the local market or would constitute an unfair advantage to the RBOCs. Nevertheless, S.652 did not include the "date-certain approach" of the first Republican draft that would have permitted non-conditional entry years after the adoption of the bill. Concerning universal service, the bill conferred the responsibility of defining and ensuring universal service to a Federal-State Joint Board, instituted by the FCC.

The Commerce Committee adopted S.652 at the end of March and the debates moved up to the full Senate. The negotiations continued in the Senate over the next months and the bill was incrementally modified, including more and more provisions proposed by the Democrats. For instance, the FCC would have to consider the public interest in weighing a RBOC request for long-distance entry. The new version of S.652 printed in June included a much more detailed section about universal service. The FCC and the Federal-State joint Board would have to make sure that universal service would be provided at "just, reasonable and affordable rates to all Americans, including those in rural and high cost areas and those with disabilities." The bill also provided that "access to advanced telecommunications and information services should be provided in all regions of the Nation," including in elementary and secondary schools. The bill was passed by the Senate on June 15.

In May 1995, a companion bill to S.652 was introduced in the House and referred to the Commerce committee. H.R.1555 was similar to the Senate bill. Concerning the liberalization of the telecommunications services industry, the
differences lay in the 18-month waiting period between the opening of the local network to competition and the entry of the RBOCs into the long-distance market. The House bill also required the presence of a facility-based competitor in the local service market. Moreover, it did not include the public interest clause included in the Senate version and the universal service issue would be left mainly in the hands of the FCC. H.R.1555 was passed in committee in July. During the summer of 1995, President Clinton’s Administration issued a veto threat which caused many changes to be made on the Floor during the House votes in August 1995. The Administration was especially worried about provisions regarding cross-ownership of cable and broadcasting as well as cable deregulation which were made part of the bill.

Once both chambers adopted their bill, the process continued in the Conference Committee where the differences between the House and the Senate bills had to be reconciled. The variations between the two versions were significant. In addition to the differences we noted earlier, the provisions concerning interconnection had to be harmonized. With the support of the Administration through a veto threat, the Democrats were able to push for many modifications. Senator Hollings was the Democrat leading the conference committee. “When he was negotiating in conference, the veto threat from the President gave him the leverage to convince Republicans to change the bill.”36 The Conference went on from October to December 1995. On February 1, 1996, the House of Representatives approved the conference report bill by a vote of 414 to 16 and the Senate vote was 91 to 5. The President signed the Telecommunications Act of 1996 some days later.

The final result is a long and detailed law providing not only for the liberalization of the local phone market and the RBOCs’ entry into long-distance, but

36 Interview with ex-senior official from DOJ, , Washington, D.C., December 10, 1999
also addressing a number of other issues such as broadcast spectrum licence and obscenity and violence on the Internet and on television. As in the earlier versions of S.652, the opening of the local market to competitors is ensured by a series of requirements concerning interconnection. For instance, interconnection of the competitors network to the local exchange carrier network must be of good quality and at just, reasonable and non-discriminatory rates and conditions. Other requirements such as number portability, unbundling of services, as well as provisions about collocation\(^{37}\), and resale also aim at guaranteeing free entry of competitors in the local exchange. The interconnection agreements are reached through negotiations between the parties. The party requesting interconnection can ask the state commission to arbitrate the agreement if the negotiations with the local carrier last longer than a specific time. As stated in the earlier versions of the bill, the rate of interconnection established by the state commission must be cost-based and "may include a reasonable profit."

The Bell operating companies are permitted to provide long-distance service in their region under certain conditions. During the conference negotiations, the House's additional condition for Bell entry was incorporated in the bill. A minimum of one competitor must be interconnected to the RBOC's network before the Bell company can offer long-distance services but also, it must be a "facility-based competitor," i.e. a company whose services are exclusively or predominantly offered over their own telephone exchange network. In consequence, the presence of a reseller in the local loop is not considered sufficient to allow the Bell company in long-distance. In addition, the RBOCs must have fully implemented the fourteen interconnection requirements set forth in the "competitive checklist." This list of conditions ensures

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\(^{37}\) Collocation involves the installation of equipment of the telecommunications company on the premises of the local exchange carrier.
that the RBOC is not using its incumbent position to prevent competition. It includes items such as non-discriminatory access to network elements and to physical installations (poles, conduits), to 911 and directory assistance services, and white pages directory listing for consumers of the competitors. The entry of a RBOC in the long-distance market must be authorized by the FCC. The very specific requirements about universal service found in S.652 were kept mostly intact in the final text.

In retrospect, the adoption of the Telecommunications Act of 1996 did not mean the complete deregulation of the telecommunications service industry. Indeed, the regulator still has authority to supervise not only interconnection but also long-distance rates, other phone companies' practices, and the new universal service system. The law is concerned with liberalization: allowing competition in previously monopolized markets, i.e. the local market, and lifting legal barriers which prevented some firms from entering the long-distance market. This new policy marked a new step in the regulatory regime which began in the 1970s, characterized with concerns for economic efficiency and a greater reliance on market mechanisms. For the neo-liberal economists advocating liberalization and deregulation, it is only a half-victory, as they believe that the new legislation is creating too many rules and giving too much power to the FCC.

Indeed, the adoption of the Telecommunications Act does not mark the complete implementation of the policy prescriptions of the neo-liberal paradigm. The legislation addresses one important aspect: liberalization, i.e. allowing competition in previously monopolized markets. However, regulation was not eliminated. The Act requires the FCC to regulate many aspects of the industry. To the disappointment of neo-liberal economists, regulatory controls were not removed; they believe that the law leads to "managed competition" in the industry (Sidak and Spulber, 1998). The Act endorses the view that market mechanisms are not sufficient to ensure fair competition.
The legislation supports public intervention to address various market failures: supervision of interconnection rates or the provision of universal service. The reasons which account for the persistence of regulation will be discussed in the next chapters.

3.4 Conclusions

The liberalization of the telecommunications service industry in the United States has been a slow and gradual process. The first initiatives of allowing competition in some segments of the industry occurred relatively early but the completion of the shift from monopoly to competition took a long time. These observations seem to concur with Weir and Skocpol's conclusions about the American institutions and their impact on policy change. The fragmentation and permeability of the institutional framework, and the policy advice system it relies on, facilitated the early appearances of pro-competition policies such as the ones adopted by the FCC. However, the lack of hierarchy and centralization of policymaking authority made the consolidation of these initiatives more difficult. The repeated failures of Congress to legislate and create a more coherent set of pro-competitive telecommunications policies are good examples of such difficulties.

The policymaking process I described in this chapter supports the hypothesis that experts are not influential in selecting one specific policy option. Indeed, the account of the preparation of the Telecommunications Act 1996 reveals that experts appear to have little direct influence over the adoption of this policy. Members of Congress and telecommunications companies appear as the key actors in the process. The telecommunications corporations, such as the Bell companies, and the long-distance firms through their sustained contacts and negotiations with Congress were highly influential in determining the content of the legislation. Changes in the different versions of the bill under the Democratic and the Republican majorities were
not in reaction to experts' recommendations but responses to lobbying from the
industry and from negotiations among members of Congress from both sides of the
political spectrum. Business interests have been dominant in influencing the content of
the legislation as well as in setting the agenda on telecommunications policy. Thus, it
is foremost the RBOCs' pressures to modify the MFJ and the restrictions it imposed on
the Bell companies that structured the policy agenda during the 1980s and the early
1990s. This finding is consistent with the business politics literature which stresses the
mobilization of American business and its strong involvement in the policy arena. It
also points at the weakness of the non-business groups mobilization such as consumers
groups; they appeared in hearings but did not dominate the scene and did not
participate in the informal negotiations taking place outside the hearing room.
Chapter 4: Experts in Congressional Hearings

4.1 Introduction

After retracing the emergence of a new regulatory regime in telecommunications, I will now focus on the role of experts in the legislative debates that eventually led to the adoption of the Telecommunications Act. In this chapter, I concentrate on congressional hearings and the experts selected by policymakers, i.e. the members of the relevant congressional committees. Who are these experts? What do they have in common? Why were they selected? What criteria did policymakers use to determine which experts were legitimate providers of advice?

In American politics, congressional committee hearings are a "passage obligé" for any bill, if it is going to be enacted as a law. By deciding to defer hearings or not to hold them, a committee or subcommittee chairman can effectively "kill" a legislative proposal. Public hearings can play both investigative and legislative roles. Davidson and Olesek (1994, p.226) outlined the many purposes of committee hearings:

- to explore the need for legislation
- to build a public record in support of legislation
- to publicize the role of committee chairmen
- to review executive implementation of public laws; and
- to provide a forum for citizens' grievances and frustrations.

Witnesses who testify at these hearings are usually federal officials or representatives of pressure groups (such as industry or labor). By contrast, independent experts such as academics or policy institute analysts, are not usually invited to testify. Nevertheless, in the legislative debates leading to the Telecommunications Act of 1996, some experts did testify in committee hearings. Their testimony forms the basis of this chapter.
In order to limit the corpus to a meaningful set, my investigation of the Congressional Record focuses on the legislative history of the Telecommunications Act. Starting in 1986, Congress began to consider bills that would remove restrictions on the Bell companies’ diversification. In examining the transcripts of these public hearings, I wish to identify the experts selected to testify and their contributions to the hearings, but also to establish the criteria that were used to select them. To answer the latter question, I also rely on interviews and written materials such as newspapers, trade journals and scientific journals which tell us more about the individuals policymakers recognized as experts.

4.2 Criteria for selection of experts in hearings

Why were certain individuals selected as expert witnesses in these congressional hearings? Do they share certain attributes that could explain why congressional policymakers recognize them as experts on telecommunications policy? There are no formal rules or legal criteria that govern who is considered an expert on a given topic in the political process.\(^1\) Nevertheless, our observations show that formal credentials and relevant experience are minimal requirements.

\(^1\) There are no formal rules about an expert's certification in courts either, for that matter. "A proposed witness's qualifications to testify in courts are first established through a 'voir dire' examination. On the basis of questions asked by counsel of both parties, the trial judge forms an initial opinion of the expert's claim to specialized knowledge and determines whether the witness should be admitted or not. The entry barrier at this stage is relatively low; for example, a witness may claim expert status on the basis of experience alone, without benefits of formal credentials" (Jasanoff, 1995, p.58).
Indeed, by examining biographical information about this group, some common characteristics emerged. Economic and legal backgrounds are the most frequent ones. Other disciplinary areas considered relevant were business and engineering. Moreover, as one of our interviewees commented, these experts usually have an extensive publication record and broad research experience on the topic. “Even though you have a lot of young analysts in this field, you usually get the ‘crustiest’, oldest guys in the business; they are the ones invited to testify. That’s sensible. You have people who potentially could win Nobel Prizes or [someone who] has been dean of a business school at Yale for ten years. They have done their time, they’ve proven their worth. They are more likely to testify because of the weight of serious intellectual respect with them.”

In addition to their research credentials, many expert witnesses have previously worked in governmental organizations concerned with telecommunications like the FCC, the NTIA, the Justice Department or one of the congressional committees. Interviewees confirmed that a combination of specialized knowledge and experience in the government makes experts more valuable, giving them a greater awareness of the political process and its peculiar demand on expertise. Understanding the demands of the political process is crucial for experts:

In economics, mathematical and theoretical work is the way to advance, but those people are not considered relevant by policymakers. They are not able to translate their work in policy relevant terms. People like me will be more influential than the theoreticians. Top ranking economists would use numbers, a theoretical model, and would not know how to translate it into language the policymakers understand. Those who put substantial effort on translation will be more influential.  

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2 Interview with policy institute analyst, Washington D.C., October 1, 1999, emphasis added.
In addition to guaranteeing that he/she understands the caprices of policymaking and knows how to make her/his advice comprehensible, experience in a government agency also places the expert in a network on which policymakers can rely.

[When you have prior experience in the government,] people identify you as somebody who has been involved with the public policy process, and understands the public policy process. It gives some additional credibility. The other thing is they are more likely to know you, if you have been around town for a while.\(^5\)

Additional factors are considered by the committee staff responsible for inviting experts to testify. First, staff must select experts who support the views of the proponents of the legislation as well as experts who oppose them. Staffers from the Democratic and Republican parties will ensure that their views are supported by the experts’ testimonies. A staffer described this process as usually consensual: “I will invite my experts and you will invite yours.” However, he noted that after the election of the Republican majority in 1994, the process became more partisan, as the Republicans tried to monopolize the floor with experts buttressing their proposals.\(^6\) Experts may not wield great influence over the specific of congressional policymaking, but their cognitive authority is nevertheless recognized. If your opponents have one or several experts supporting their proposal, you should have somebody with similar credentials to back your own views. “It is important to have experts to support your views, it is especially damaging not to have any experts.”\(^7\)

A second and related criterion for selecting expert witnesses is the representation of different views, “to have a balanced panel.”\(^8\) Hearings must leave space for the

\(^7\) Interview with ex-congressional staffer, Washington, D.C., October 7, 1999.
\(^8\) Interview with ex-congressional staffer, Washington, D.C., October 7, 1999; Interview with policy institute analyst, Washington, D.C., October 1, 1999.
perspectives of the various parties who have a stake in the issues, and this principle applies also to expert testimonies. For instance, on a panel where an economist advocates the lifting of the line-of-business restrictions, another economist argues for the opposite position. Similarly, strong proponents of universal service are invited to balance the testimonies that only stress pro-competition policies. Some witnesses are invited to defend or attack one specific point. For example, John Mayo was invited by Democrats to denounce the proposal that RBOCs could enter the long distance market without conditions after a specific date. Nevertheless, the range of disagreement is relatively narrow. None of the individuals considered by policymakers as experts, and invited to Congress on that basis, are completely at odds with the neoclassical economic credo on telecommunications regarding liberalization. No dissenting views about liberalization of telecommunications were included in the group of experts, but there was disagreement about the extent of the deregulation needed in the sector.

4.3 Who are these experts? 1986-1992

Between 1986 and 1992, House and Senate congressional committees held several hearings related to the telecommunications industry and to the issue of lifting the restrictions imposed on the Bell companies by the MFJ. During these hearings, more than 280 statements were presented to the House and the Senate. The main factor dividing the witnesses was the issue of lifting the line-of-business restrictions on the Bell companies. The RBOCs, of course, supported lifting the restrictions, along with the Administration's representatives: the FCC chairman, the Antitrust Division's Assistant Secretary and the Department of Commerce's representative. The opposite camp included various companies in the industry: the long-distance companies, information services firms, and manufacturers, as well as state commissioners representing the National Association of Regulatory Utility Commissions (NARUC) and organizations like the International
Communications Associations representing business users. The Consumer Federation, speaking more from the point of view of the residential users, also warned against letting the RBOCs enter contiguous markets but mainly advocated against "cost-based pricing" and the increase in customer rates for basic service.\(^9\) Another organization representing consumers supported the lifting of the restrictions. The Alliance for Public Technology, a consumer organization funded by the Bell companies, indeed favored RBOCs entry into new markets, to the dismay of other customer advocates.\(^10\) The unions representing telecommunications workers supported the lifting of the restrictions on the RBOCs and the liberalization of all telecommunications markets. However, they expressed concerns about job losses at AT&T and the RBOCs and suggested that these companies "be required to use a preferential hiring system that allows those workers currently on their payroll or those displaced by such changes to enter their new lines of business."\(^11\) In addition to these groups, about twenty witnesses who could be classified as "experts," that is, working for a university, a policy institute or a consultant firm testified between 1986 and 1992.\(^12\)


\(^10\) The tensions among the consumer groups were reported in the press: "The lobbying battle, one of the most expensive ever, has prompted a bitter split among advocacy groups usually allied with one another. Lined up with the phone companies are the disabled and other constituencies the Bells have cultivated for years: 'They're being used, wined, dined and co-opted,' said Gene Kimmelman, legislative director of the Consumer Federation of America, one of the nation's biggest consumer groups. He was criticizing the Alliance for Public technology, a Bell-funded umbrella group favoring Bell entry into new businesses. "The Alliance for Public Technology is a corporate front group set up by the Bell companies," wrote researchers Mark Megalli and Andy Friedman in a Nader publication called "Masks of Deception" The Washington Post, March 29, 1992.

\(^11\) National Communications Infrastructure: Hearings before the Subcommittee on Telecommunications and Finance, House Committee on Energy and Commerce, February 8,9 and 10,1994, p.463.

\(^12\) CIS/Index, Legislative Histories Public Law 104-104: Telecommunications Act of
Table 1: Experts who testified in congressional hearings on telecommunications policy between 1986-1992

Economists: Crandall, Robert, Brookings Institution
Harris, Robert, Haas Graduate School
Kahn, Alfred, Cornell University
Manley, Irwin, University of New Hampshire
Mayo, John, University of Tennessee
Noam, Eli, Columbia University
Selwyn, Lee, president, Economics and Technology Inc.

Legal background: Geller, Henry, Duke University
Huber, Peter, Manhattan Institute for Policy Research
Pitowski, Robert, Georgetown University
Shooshan, Harry, cofounder Shooshan and Jackson Inc.
Sullivan, Lawrence, University of California-Berkeley.
Tribe, Laurence, Harvard Law School
Wiley, Richard, attorney, former FCC chairman

Others: Hatfield, Dale, Hatfield Associates
Jackson, Charles, principal Shooshan and Jackson Inc.
McLaughlin, John, Harvard University
Ouchi, William, University of California
Rutkowski, Anthony, MIT

Source: Congressional Universe: CIS/Index, on-line database.

Some of the expert witnesses involved in congressional hearings are what one could call "polyvalent experts": they frequently provide expertise to members of Congress in a variety of fields. The economist Robert Crandall, from the Brookings Institution, is one example. Between 1976 and 1997, he appeared about fifty times before congressional committees to discuss the airline and automobile industries, health care reform, telecommunications and regulatory reform in general.\footnote{13} He was also a member of Reagan's transition team on regulatory reform at the beginning of the 1980s.

\footnote{Source: Congressional Universe: CIS/Index, on-line database.}
In 1987, Crandall presented his testimony about Congress's attempt to eliminate the line-of-business restrictions on the RBOCs. Robert Crandall cautiously supported the lifting of these restrictions but insisted mostly on the importance of pricing practices that reflect costs.\textsuperscript{14} Crandall also challenged universal service as a sound policy objective. Universal service is indeed one goal that most elected officials support and consider at the center of their concerns when it comes to telecommunications policy. As one member of Congress explains: "I guess what concerns me more than anything else is devising a system that provides that kind of public protection. In the case of telephone, it is adequacy of service. We recognize in America that universal communications service is something that is part and parcel of our democratic system."\textsuperscript{15} Crandall does not share that view:

In some ways, it is perhaps surprising that the level of local telephone rates is such a major political issue. Telephone service accounts for only 2 percent of consumer spending in the US and local service for only about 1 percent. Telephone is certainly not an urgent necessity like food, shelter or perhaps transportation. Yet when local service prices rise by a few percentage points, enormous concerns are voiced in the political arena. As yet, there is no evidence that these higher rates have had much effect upon telephone subscriber penetration.\textsuperscript{16}

The economics professor from Cornell University, Alfred Kahn, also testified frequently on regulatory reform: he appeared before Congress in more than 80 instances

\textsuperscript{14} "As for the line-of-business restrictions in the consent decree entered in 1982, I tend to agree with the Justice Department findings that in fact it makes sense to begin to release the Bell Operating Companies from these restrictions," Robert Crandall, in \textit{Competition in the Telecommunications Industry: Hearings before the Subcommittee on Monopolies and Commercial Law on H.R. 2030}, House Committee on the Judiciary, April 29, 1987, p.15.

\textsuperscript{15} Mr. Glickman, \textit{Competition in the Telecommunications Industry}, House Subcommittee on Monopolies and Commercial Law, Committee on the Judiciary, April 29, 1987, p.106.

between 1976 and 1997. This expert had not only published one of the major academic works on regulation\textsuperscript{17} but also was a very active promoter of liberalization and deregulation. He was one of the leading political entrepreneurs behind the deregulation of the airline industry as the chairman of the Civil Aviation Board (see McCraw, 1984). He is considered by his peers as one of the fathers of regulatory economics. Greatly admired by fellow economists, he was honored in December 1999 by the new AEI-Brookings Joint Center for Regulatory Studies.

In contrast to Crandall, Alfred Kahn refrained from taking a specific position about the lifting of the line-of-business restrictions. He preferred to underline some general economic principles that policymakers ought to follow. During his testimony in 1987 and the subsequent question period, he insisted on the importance of abandoning the rate-of-return method which regulators use to set the prices for local service. He explained that once another pricing scheme is adopted, such as the U.K.’s indexation method, the threat of cross-subsidization from monopolized activities to competitive ones disappears. He also argued for complete deregulation of the long-distance sector. According to Kahn, opening the telephone industry to free entry demands deregulation of the incumbent companies as well.

Regulation runs the extreme risk of erring on the side of protecting competitors from competition in conflict with its major historical function, which is to protect consumers from being charged excessively high prices or being given poor service. All too often historically regulation has done exactly that, has been synonymous with cartelisation protectionism.

If we are uncertain, and despite Mr. Selwyn’s eloquent testimony on the point, the fact is, we do not know, and economists have been studying this for years, you can get the total spectrum of opinions of the subject, if we’re uncertain whether some

\textsuperscript{17} Alfred Kahn, \textit{The Economics of Regulation: Principles and Institutions}, John Wiley and Sons, New York, 1971.
parts of the telephone business may really be natural monopolies, the only way to find out ultimately is to permit competition to take place and let the market tell us.\textsuperscript{18}

Another polyvalent expert who frequently testified in congressional hearings was Professor Lawrence Tribe from the Harvard Law School. This legal scholar testified more than 30 times in committee hearings about the constitutionality of various pieces of legislation. He argued in courts and in Congress that the RBOCs ban from entering information services was a violation of their First Amendment right to free speech.\textsuperscript{19} He appeared before the House Subcommittee on Telecommunications and Finance in 1990 as he had "been asked by the subcommittee to address two matters: the significance and effects of the ruling of April 3, 1990, by the US Court of Appeals for the DC Circuit, concerning the proper standards for removing the MFJ restrictions; and the constitutionality of the pending bill with regard to restrictions on information services."\textsuperscript{20}

To a lesser extent, Lawrence Sullivan from UC-Berkeley is another professor who offered legal expertise to policy-makers on a variety of topics, especially antitrust related issues. In 1991, he was invited to provide his views on S.173, a bill that would lift the manufacturing restrictions on the Bell companies. He advised against doing so: "If the link to manufacturing is reestablished, and that is what S.173 would authorize, the Bell incentives to self-deal and cross-subsidize would be as forceful as they ever were, and the


\textsuperscript{20} Ibid., p.410.
hope of controlling such conduct by regulation is no greater today than it was when the decree was entered.” 21

Another type of witness recognized by policymakers as expert are those specialized specifically in the field of telecommunications policy. These "regulars" in the policy process are either closely affiliated with a company (AT&T's expert, Bell's expert), or they are associated with a public interest organization. The regulars provide testimony not only in congressional hearings, but also in regulatory hearings at state commissions. They also present affidavits in the courts. Henry Geller is a good example of a “regular” expert without direct relationship to one of the telecommunications companies. This lawyer, who is reportedly "considered the leading expert on telecommunications policy and the only person in communications who is important that doesn't have an ax to grind,"22 was the general counsel at the FCC from 1964 to 1970 and went on to be a consultant until 1978. He led the NTIA from 1978 to 1981 and the Washington Center for Public Policy Research at Duke University through the 1980s. He became a professor at George Washington University in 1993 and retired in the late 1990s. He was depicted by one of the interviewees as the “grandfather” of the telecommunications policy community. The National Law Journal, in its listing of the most important communications lawyers, wrote that Geller is “regarded as the dean of the public-interest sector and a strong advocate of opening the cable and telephone industries to competition.” 23 During the consideration of a bill in 1986 that would relax the MFJ restrictions on the RBOCs (H.R. 3687), he challenged the concept that line-of-business

21 The AT&T Consent Decree’s Manufacturing Restriction, Senate Committee on the Judiciary, Subcommittee on Antitrust, Monopolies and Business Rights, May 21, 1991, p.394.
restrictions were a good idea in the first place. His presentation supported the bill and strongly criticized the idea of preventing the Bell companies from providing information services, given the technological convergence of communications and computers.

The MFJ has been flawed from the inception ... Now, under that same MFJ, the government has taken the BOC's, very large telecommunications companies, and parked them out, said they can't do information services; yet they are driven by the same emerging technologies [as the rest of the industry]. It seems to me that this is a policy completely out of whack with the driving technology. ... It is, I submit, in the public interest to have the BOCs make their contribution. ... It's natural for them to do information services.

During the question period, he stressed the importance of efficient pricing of the local service: he argued that the subsidies to the local service should be terminated and the end users should pay the real price for this service.

I will be unpopular here and say that if you are talking about the loop and the dedicated switch, it's a nontraffic-sensitive cost. I believe the FCC was correct in trying to shift them to the end user [access charge]. I think you have to get rid of the subsidies in the scheme. ... And I would hope that Congress would allow a dollar and then another dollar each year, to get rid of those subsidies so that we can be done with the bypass problem because we don't have to worry about uneconomic signals.

I mentioned earlier that having work experience in the government and being able to explain policy views in plain English are necessary to be considered a relevant advice
provider. One additional element mentioned by an ex-congressional staffer is the capacity to perform boredom-free presentations.

Moreover, the “star-quality” of the witnesses is also important. Members do not like boring experts. Henry Geller is a good example of a good speaker, he is interesting. He also has experience in the government which makes him more aware of the political process. That’s makes him a valuable expert. 27

Peter Huber is a special type of expert who became a regular witness in Congress. 28 This eclectic lawyer with a Ph.D. in engineering was hired in 1986 by the Department of Justice to produce a report on the state of the telecommunications industry. Given the pro-competition and deregulatory stance of the Reagan administration, the Bell companies were lobbying the Department of Justice, asking for the end of the line-of-business restrictions. The MFJ required a triennial review of the telecommunications sectors by the Department of Justice. In 1987, the DOJ filed recommendations to Judge Greene on that subject and recommended an end to the line-of-business restrictions. The Antitrust Division, which had earlier insisted on the importance of such separation of the competitive and non-competitive business, had changed its position. The press reported that many of the DOJ’s lawyers were disappointed and bitter about this decision by the Department’s senior decisionmakers. "A number of Justice lawyers contend privately that the policy tumabout is not justified by the available data. ‘It is very hard to point at anything that changed,’ one lawyer said. This staffer said that what really changed is the level of political sophistication of the Bell operating companies (RBOCs)." 29 There is indeed evidence that high-level lobbying from the RBOCs took place during that period. 30

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28 Huber testified 8 times about telecommunications in the 1990s, and was invited to testified before the House Subcommittee on Telecommunications in 1987, but declined.
29 The Washington Post, June 28, 1987. The president of a business user association (North American Telecommunications Association) echoed this view and "called the
Based on the voluminous report prepared by Huber (Huber, 1987), the DOJ argued that the line-of-business limitations were not justified anymore. The report by Huber, *The Geodesic Network*, became an important document in the sector. It is oft-quoted in many statements during congressional hearings. When asked to name some of the most important studies about telecommunications policy, several of my interviewees referred to it. The report mixed engineering analysis with economics and presented a picture in which competition and deregulation were inevitable, given the recent technological changes and the transformations they forced upon the economics of telecommunications. The main technological change the author pointed to was the advance in switching technology and other forms of network intelligence. These innovations dramatically decreased the price of switching, which remodeled telecommunications networks. As the author explains,

> When switching is expensive and transmission is cheap, the efficient network looks like a pyramid. One hundred million telephones converge into twenty thousand end-office switches (class 5), which converge into a thousand tandem switches, and so on to a handful of regional master switches at the apex (class 1). The system has comparatively few switches; it has many lines. By contrast, when switching is cheap and transmission expensive, the efficient network is a ring. The nodes (switches or computers) are connected along a "geodesic", a path of minimum length. Switches and other intelligent nodes proliferate; transmission is kept to a minimum (Huber, 1987, p.1.3).

Huber argued that the technological change and its impact on the economics of the network caused the American telecommunications services industry to be inherently

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Huber report 'an intellectual sophistry' because it was done only to fit conclusions from the Reagan administration that MFJ restrictions should be lifted," *Communications Daily*, March 13, 1987.

30 For example, a director of Pacific Telesis wrote a personal letter to the Attorney General to convince him to eliminate the line of business (Letter in Senate hearings record of April 30, 1987).
competitive, even at the local loop level, given the multiple points of access into the network. Based on these findings, the DOJ was able to justify its policy reversal on line-of-business restrictions; the new technological changes were permitting such policy change. The selection of Peter Huber as the expert to prepare such a report was neither accidental nor based on a "tendering process." Even though Huber had never done research work on telecommunications before, "no other potential sources were contacted or solicited in connection with this effort. Mr. Huber [was considered] the only known source capable of fulfilling the [Antitrust] Division's expert witness requirement in this instance and within the specified time frame." It is more likely that the DOJ needed Huber's prestige and authority to support a policy reversal which was controversial even within the Department itself. Huber had been characterized as a brilliant young generalist with new ideas who received his Ph.D. in mechanical engineering from MIT at 23 years-old and earned a Harvard law degree while teaching at MIT. From his previous writings on acid rain regulation, risk assessment and on tort law, he can be labeled pro-deregulation and conservative, with close ties to the American Enterprise Institute. The senior management of the DOJ could trust this expert to provide them with a report which would support the Administration's will to lift the line-of-business restrictions.

In spite of the DOJ argument and the Huber report, Judge Greene was not convinced that major changes had occurred to support a new approach. Therefore, he refused to lift the restrictions, except in the case of information services. The decision

31 He also argues that this new network will inexorably lead to consolidation of services, given the preferences of customers for end-to-end services. (p.1.9) In contrast to the pyramidal network, "in a world of multi-lateral connectivity and highly dispersed electronic intelligence, integration and competition can coexist" (Huber, 1987, p.1.9).
32 Internal memo of the Antitrust Division quoted in CommunicationsDaily, April 7, 1987.
certainly disappointed the RBOCs but most importantly created a sense that Congress needed to legislate on the topic and regain control over policy-making in that area.34

Lee Selwyn, the director of the consulting firm Economics and Technology Inc. is another expert who regularly testified during congressional committee hearings dealing with telecommunications (eight times between 1981-1995). He was often hired by business user associations such as the International Communications Association (ICA) and the Ad Hoc Telecommunications Users Committee to present economic data supporting their positions. He was commissioned by these two organizations to produce a report challenging the Huber report. His report was submitted to US District Court Judge Harold Greene and to the Congressional Record in 1987.35 Selwyn contested the geodesic network concept on which Huber based his argument that the RBOCs' local exchange monopoly had been eroded by competition: "this engineering metaphor fails for both technological and economic reasons."36 In his report and his testimony before Congress in 1987, Selwyn presented a thorough deconstruction of the evidence and the analysis proposed in the Huber report. For example, he argued that per-unit-of-capacity costs for transmission have greatly decreased in the last two decades, thanks to new

34 The reaction of Representative John Dingell, Chairman of the House Committee on Energy and Commerce, illustrates this sentiment. "I continue to be offended by the fundamentally antidemocratic process whereby a single unelected unaccountable Federal judge has transformed himself into a regulator without portfolio. It is my hope that this Star Chamber type of proceeding will at last produce a consensus on the need for legislation," The New York Times, September 11, 1987. Actually, a bill was introduced in the Senate in 1986 to remove the judicial branch from overseeing the telecommunications industry and put it all in the hands of the FCC (S.2565). Despite strong support from the Reagan administration, the bill failed to pass in Congress.
technologies like optic fiber, whereas switching costs have remained relatively stable (even though switches have become more sophisticated). Selwyn also put forward evidence that the telecommunications network is becoming increasingly centralized and hierarchical, contrary to Huber's model.

Unfortunately, the Huber Report reached a number of fundamentally incorrect factual conclusions about the connection between networks and market power, largely because of its failure to recognize the role of centralized control of network connectivity and the extreme economies of scale and scope that characterize large network structures. 37

Dale Hatfield, president of the consulting firm Hatfield and Associates and professor at the University of Colorado, is another frequent expert witness in hearings concerning telecommunications and broadcasting policy. This engineer worked as a senior official at the FCC and the NTIA through the 1970s until 1982. In 1988, he presented to the FCC and to Congress a report commissioned from his consulting firm by enhanced-service telecommunications providers that criticized the plans the RBOCs filed with the FCC on Open Network Architecture (ONA). 38 In his testimony during a 1988 hearing, he cautioned against relying too quickly on ONA as a substitute for structural separation.

It seems to me that there is a very fundamental change in policy that we are contemplating here. We are removing a wall or a separation that has been in place for quite sometime. What we are talking about here is a fundamental change to behavioral type restrictions. 39

39 Modified Final Judgment (part 2), Senate Committee on Commerce, Science and Transportation, Subcommittee on Communications, July 14, 1988, p.221.
Another regular expert was hired by the RBOCs to respond to the Hatfield report. Harry Shooshan, from the consulting firm Shooshan and Jackson Inc., is a lawyer who was a congressional staffer from 1969 to 1980, and was responsible for the House Communications Committee in his last five years of service. He was teaching at Georgetown University from 1980 to 1985 when he founded his consulting firm, which merged with the big economic consultant firm NERA in 1989. He testified eight times in Congress on telecommunications and broadcasting affairs.

Eli Noam, a prolific economist teaching at Columbia University's business school and the founder and director of the Columbia Institute for Tele-Information, was another expert who appeared regularly at public hearings. In addition to being routinely interviewed by the media on various communications issues as "one of the nation's foremost authorities on telecommunications," Noam testified seven times in Congress. This professor was also a commissioner at the New York State Public Service Commission (1987-1990) and was considered for appointment as an FCC commissioner. Invited to testify in the Senate about ONA, he stressed the importance of interconnection procedures such as ONA, not only for enhanced-service providers but also for future competition, especially in the local exchange. He also discussed jurisdictional issues recommending that the FCC collaborate more with state agencies.

A number of experts were occasional witnesses, presenting only two or three statements concerning telecommunications in congressional hearings in the last decades. One such expert was Professor Manley Irwin from University of New Hampshire, who was invited in 1987 to comment on the impact of lifting the line-of-business restrictions in

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manufacturing. This economist who has served as a consultant to many organizations and state regulatory commissions and worked at the FCC, opposed the lifting of the manufacturing ban.\textsuperscript{41}

Charles Jackson was invited to testify in 1987 to provide the House Committee on Energy and Commerce with information about the Open Network Architecture (ONA) and the line-of-business restrictions in information services. This engineer at the consulting firm Shooshan and Jackson previously worked at the House Communications Committee and at the FCC's Common Carrier Bureau. He believed that the line-of-business business restriction should be lifted even before the ONA standards for open access were implemented by the FCC. "I would like to point out that the information services bar was an error from the beginning: it was wrong three years ago and it's harmful today."\textsuperscript{42}

Anthony Rutkowski testified at the same time as Charles Jackson about the technical development in telecommunications and ONA.\textsuperscript{43} He was trained as an engineer and a lawyer and has previously worked at the FCC. In the 1980s, he was based at MIT and was also the editor of a telecommunications trade magazine. He supported the lifting of the restriction on RBOCs' entry into information services and discussed the importance of Open Network Architecture (ONA).

Another occasional expert who was brought to congressional hearings about the lifting of the restrictions on the RBOCs was William Ouchi, a management professor from UCLA who supported the draft bill discussed at the time. Indeed, he believed that the restrictions on the Bell companies should be lifted.

In the past 10 or 12 years particularly, a new line of academic work that's known as organizational economics or transaction costs economics, ... establishes, and I think is now quite a mainstream point of view, that there are many cases in which vertical integration serves the public interest because there are specialized assets called for at one stage of production which will not be developed absent vertical integration. 44

Finally, Robert Harris, an economist at the Haas School of Business in Berkeley and occasional consultant for the RBOCs, testified in 1990 and 1992 in support of lifting the restrictions on the Bell companies and on allowing cable TV programming on the telephone network.

In retrospect, the experts invited to testify between 1986 and 1992 match the description at the beginning of this chapter. Research and work experience in governmental agencies is favored, as it increases one’s capacity to translate their work into “palatable” language. In the next section, I will examine which experts were brought into the political arena as the debate became more focused around the legislative proposals that would become the Telecommunications Act of 1996.

4.4 The Telecommunications Act of 1996: The Democratic Majority

As discussed in the previous chapter, a new period of legislative activity started in 1992-1993. The House and the Senate were drafting new telecommunications bills and holding various hearings on the topics. The House held hearings in 1994 on the proposed bills, H.R. 3626 and H.R. 3636. Four expert witnesses were asked to testify at these committee hearings: Peter Huber, the consultant who had prepared a report for the Antitrust Division in 1987, testified in front of the House Judiciary Committee; Peter Huber supported H.R. 3626 in a statement that stressed the existence of active competition in the local service industry and the weakness of the competition in the long-distance industry; Philip Verveer, a private practice lawyer regarded as one of the most important communications lawyers in the US, was a main counsel at the Antitrust Division at the beginning of the antitrust suit against AT&T, and later headed the FCCs Common Carrier Bureau; and Henry Geller, a legal analyst and a fellow at the Markle Foundation, a non-profit organization focusing on communications issues, testified at the House Subcommittee on Telecommunications and Finance in support of allowing the Bell companies in long-distance.

In his testimony, Verveer supported the lifting of the line-of-business proposed in the bill, but highlighted the importance of having real competition in the local market before allowing the RBOCs into adjacent markets.

Now my endorsement of that proposal for changing the MFJ is not a criticism of the line-of-business restrictions. They were warranted in 1984. They remain necessary today, although local competition, if authorized and successfully pursued, might quickly reduce the need. ...

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45 *The National Law Journal*, May 1, 1995. The journal interviewed 40 lawyers, asking them to identify the leading communications lawyers; one had to be named at least three times to be included on the list.
Despite these contributions, there are certain changes that should be made prior to passage of H.R. 3626. By way of example, I believe it would be desirable to use the Antitrust Division-FCC process, not just for interLATA issues but for the manufacturing and video programming issues as well.46

Geller, appearing before the Subcommittee on Telecommunications and Finance, stressed the benefits of competition and the importance of unbundling Bells local service to ensure real competition.

Competition is the norm in the U.S. because it spurs efficiencies and innovation and drives prices to marginal costs. It has worked brilliantly in the customer premises equipment section and has led to rapid modernization of the long-distance area, with massive investment in fiber optics cable and innovation marketing approaches. ... There is a serious problem at the local level because while several states have been forward looking, many have hung back from adopting the open entry, all-out competition approach. Again there appears to be a strong consensus in Congress, the Administration, and the FCC in how to deal with that problem. Thus, H.R. 3636 and S.1822 not only require the removal of state barriers to entry but, even more important, promote such entry through effective interconnection, unbundling of functions ... I cannot stress too much how important it is to provide unbundled access to the local loop. The loop has been the largest bottleneck.47

Eli Noam from Columbia University also supported the bills, but was mostly concerned with universal service. He proposed a financial system to support the funding of universal service where all telecommunications carriers pay a flat percentage of their revenues.48

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During these hearings, AT&T and the other long-distance carriers presented three major studies from university professors and consulting firms to denounce the RBOCs claims about the beneficial impact of their entry in the long-distance markets and the absence of bottlenecks in the local market (Porter, 1993; Hall, R. 1993; and Economics and Technology Inc, 1994). The report prepared by Michael Porter, a famous Harvard Business School professor, sought to demonstrate that the long-distance market was already competitive. One of the arguments used by the RBOCs to justify their entry in the long-distance market was that they would bring competition to a sector that was still almost completely dominated by AT&T, and hence, where no real competition existed.49

The study by Robert E. Hall, from the Department of Economics at Stanford University, also discussed the condition of the long-distance market.50 It focused on two points. It argued that competition in the sector drove down prices and that the entry of the Bell companies would have a negative impact on the market. His study challenged two previous reports which supported the end of the line-of-business restrictions: the updated version of the Huber Report (Huber, 1993) and a report from a major economic forecasting firm, Wharton Economic Forecasting Associates (WEFA), commissioned by the Bell companies (WEFA, 1993). Hall especially disputed the methodology used by the WEFA group to reach their conclusion regarding the level of competition in the long-distance market, the potential impact of the Bell companies entry on long-distance

49 For a presentation of the RBOCs' claims, see the statement of Philip J. Quigley, President and CEO of Pacific Bell on behalf of all the Bell companies, Hearings before the Subcommittee on Telecommunications and Finance, February 8, 9 and 10, 1994, p.495-521.
50 Hall is also a fellow at the conservative think-tank based in Stanford University, the Hoover Institute; he is involved in policy issues as one of the first proponents of the implementation of the "flat-tax," and is the chairman of the Business Cycle Dating Committee of the National Bureau of Economic Research. He performed consulting work for other firms, such as Microsoft, in the recent antitrust inquiry from the DOJ.
prices and the positive impact of lifting the line-of-business restrictions on national input and employment.

The third report sponsored by the long-distance carriers and submitted to the hearings record was prepared by two consulting firms, Economics and Technology and Hatfield and Associates, which previously had done research challenging the RBOCs. This report contradicted the claim that competition was already substantial in the RBOCs' respective local markets. Indeed, the RBOCs contended that the local market was already quite competitive and that they did not have any monopoly power over the local exchange facilities anymore. Given this competitive state of the local market, they could be permitted to provide long-distance services as they could not prevent long-distance carriers from having access to the local exchange network. The report entitled The Enduring Local Bottleneck disputed this claim. It concluded that the local exchange market was not competitive, even though prospects for competition might exist. It acknowledged the potential for competition coming from the Competitive Access Providers (CAPs), the wireless technologies and cable, but argued that they had no actual economic impact on the market. For example, the CAPs' revenues represented less than one percent of the RBOCs' access revenues. No cable system offered telephone service yet. The report also strongly disagreed with the Huber Report (1987) that the geodesic nature of the local exchange network made it highly competitive. It argued that:

The US telecommunications network however, is fundamentally hierarchical in structure. ... Contrary to the geodesic model posited by Huber, LEC networks are actually becoming more centralized and more highly concentrated. The availability of large-capacity digital switches, coupled with low-cost, high capacity fiber optics cable have enable LECs to consolidate switching intelligence into a smaller number of larger entities (Economics and Technology Inc, 1993, p.xi).
During their statements at these House hearings and at other congressional hearings in the following years, the long-distance firm executives often referred to these studies to buttress their remarks. Their presentations also often quoted public officials who supported their point of view, including statements from the Antitrust assistant attorney or the FCC chairman. The RBOCs also commissioned an economic study of the impact of their entry into long-distance from the major econometrics consulting firm in the country and referred to it during congressional hearings (WEFA, 1993). This study disputed the existence of real competition in the long-distance market. It also stressed the positive macro-economic impact of freeing the RBOCs from the line-of-business restrictions on employment and on the GDP.

The Senate Commerce Committee also held hearings in March and May 1994 to appraise S.1822. Speaking for the Administration, Ronald Brown, the Secretary of Commerce, supported the bill as did the FCC chairman. Only one academic expert, Eli Noam from Columbia University, gave testimony stressing the importance of universal service during these hearings. During his presentation and during the interrogation, he frequently emphasized the importance of universal service provision, while being a strong supporter of competition.

Senator Danforth: Professor Noam, do you have a view? I mean, the whole thrust of this legislation really is to create competition, and there was a vast debate last week as to whether that is something that is a real possibility or not. Do you have a view on that?

51 The WEFA group was formed in 1987 from a merger of Chase Econometrics with Wharton Economic Forecasting Associates. This firm, "the nation's premiere econometric firm, has conducted studies for most of the Fortune 500 companies and for leading banks and utilities and has over 25 years of experience in market studies, economic analysis, database design and public policy analysis," PR Newswire Association, January 21, 1992.
Professor Noam: We have kind of been through this discussion in one way or another for more than 20 years. Every time that some element of competition is being proposed, even the interconnection of equipment, people came out and argued that it was going to destroy universal service. But it never happened because certain support mechanisms were put in place, and that is why it is wise of you to reform those support mechanisms now.52

Eli Noam also proposed that the universal service fund be used for three types of need: basic service to individual clients with low-income; low-density regions; and advanced services for schools and libraries. In addition to his presentation, twenty statements were presented by various organizations and individuals such as the Consumer Federation of America and the National Association of Regulatory Utility Commissioners.

Almost forty industry representatives presented their testimonies during these Senate hearings. The long-distance companies such as AT&T, MCI and Sprint supported S.1822 and basically repeated the same arguments presented earlier, that is, they stressed the importance of having real competition in the local exchange before removing the impediment to the RBOCs’ entry into long-distance. For example, AT&T CEO Robert Allen insisted in his testimony that the RBOCs were not facing competition in the local markets, contrary to their claims, and that competition in this sector would be very difficult to reach. The alternatives to RBOCs’ network were not a real threat to their monopoly: cable or wireless services cannot replace their infrastructures.53 Allen's testimony frequently referred to the three studies commissioned by the long-distance carriers to support his arguments. He also used issues of authority based on statements by the Antitrust Division assistant attorney general Anne Bingaman and FCC chairman Reed Hundt.

The president of Bell Atlantic, James Cullen, testified on behalf of the seven Bell companies. His statement, like those of other Bell executives in previous hearings, stressed the extent to which competition can already be found in the local exchange. However, he argued that the requirement of "actual and demonstrable competition" as defined in S.1822 would actually prevent the RBOCs from offering long-distance services. Moreover, the RBOCs insisted on the beneficial consequences their entry in the long-distance market would have. Their argument was backed by the one study they commissioned from a consulting firm. As the Bell Atlantic president argued, "one study, by the respected economists at WEFA, predicts that unfettered competition would cause telecommunications services prices to decline 22 percent over the next ten years, compared with a 20 percent increase without such competition... In addition, the WEFA study estimates that such policies would create 3.6 million jobs over the ten next years ... and would produce a 3.6 percent gain in GDP." 54

The Senate Judiciary Committee also held hearings on telecommunications policy in 1993-1994. These hearings were principally aimed at reviewing the mergers taking place in the industry at the time, such as that between RBOC Bell Atlantic and the cable company TCI. Nevertheless, the chairman of the Subcommittee on Antitrust, Monopolies and Business Rights, Senator Metzenbaum, considered the legislative activity on telecommunications part of that debate. The experts invited to these hearings were the "habitués": Peter Huber, Henry Geller and Dale Hatfield, as well as legal expert Robert Pitowsky from Georgetown University. The panels of experts were assembled to have diverging views presented to members. Dale Hatfield cautioned against the merger of

telecommunications companies: "allowing the consolidation of large telephone companies and large cable companies is likely to reduce the prospects for meaningful competition in communications and information services." From his point of view, cable systems represented the best long-term promise for true local telephone competition and the proposed merger would reduce the likelihood that phone and cable would engage in vigorous competition. Peter Huber's counter-argument focused on the fact that phone companies would be investing outside their own regions, where they do not have a monopoly in local service, and therefore would not be merging with cable companies within their area of control.

Similarly, on the next panel, Henry Geller highlighted the benefits the mergers could represent for competition in the local loop, while Professor Pitowski stressed the risks. Pitowski asserted that such market power in a sector where technology is still evolving is especially risky, as it may be possible for them to prevent competitors to catch up with them. He also highlighted the special nature of the mergers. "The second point about these mergers is that they related to combinations in the marketplace of ideas. The majority view among academics and scholars is that antitrust should be concerned solely with economics, that there is no reason to think about mergers differently if it is communications, newspapers, books, as opposed to steel, oil and cereal. I don't agree with that."

On the other hand, Henry Geller directed his attention to the potential benefits of the merger on competition in local service. "It is true, as you heard, that TCI was gearing up, changing its structure and its technology, to compete in

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55 Exaining the effects of Megamergers in the Telecommunications Industry, Senate Subcommittee on Antitrust, Monopolies and Business Rights, Committee on the Judiciary, October 27, November 16 and December 16, 1993, p.51.
56 Examining the effects of Megamergers in the Telecommunications Industry, Senate Subcommittee on Antitrust, Monopolies and Business Rights, Committee on the Judiciary, October 27, November 16 and December 16, 1993, p.242.
telecommunications, but when you add in the factor of Bell Atlantic, with its experience and its resources, it seems to me that the competition is greatly strengthened, and you need a very large company to go after the local exchange monopoly.”

4. 5 The Republican majority, 1995-1996

After the election of a Republican majority to Congress in 1994 and the redrafting of a new telecommunications bill, Congress was ready to reconsider the new proposal. In March 1995, the Senate Commerce Committee held two hearings. In addition to the industry and administration representatives, six experts from policy institutes, universities or consultant firms were invited by the committee to present their point of view on the legislation.

Most of their testimony included general statements of support for a very deregulatory proposal. Several members of the Republican party considered the deregulatory approach, which allowed for complete market liberalization after a set date, too radical and possibly damaging to competition. In order to counter those views within their own ranks, Republicans invited witnesses who stressed the creative forces of competition and the problems linked to regulation.

Two "occasional experts" were invited to testify. Clay Whitehead, a consultant who was the Director of the Office of Telecommunications Policy (which became the NTIA) under President Nixon, offered a presentation supporting the liberalization and the

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57 Examining the effects of Megamergers in the Telecommunications Industry, Senate Subcommittee on Antitrust, Monopolies and Business Rights, Committee on the Judiciary, October 27, November 16 and December 16, 1993, p.248.
deregulation of the telecommunications industry, as well as the adoption of the "date-certain" approach.

Judicial tests of competitiveness as a precondition of open entry only invite outrageous arguments and add to the uncertainty. It would be far better to set a time certain for open entry and deregulation. ... The companies in this industry are prepared to invest billions of dollars over the coming decade and all they want is a little relief from the regulatory uncertainty that confuses the industry. You and your colleagues are philosophically in accord with that agreement and off to a good start. It has been 60 years since we have had such a consensus on telecommunications policy and 60 years since we have had a comprehensive act. I urge you to give us one in this session of Congress. 59

George Gilder is an example of a "star-witness", not so much in terms of policy input and influence, but in terms of his capacity to increase the profile of that hearing and its coverage by the media. He is a famous technology writer with a wide readership, especially through his articles in the business magazine Forbes, and a popular speaker whose fees can go as high as $20,000 for a presentation on the future of the information technology business. This senior fellow at the free-market oriented Discovery Institute is known for his conservative views, his book Wealth and Poverty (which was considered as the bible of supply-side economics in the 1980s) and his frequent hyperbolic opposition to government interventions. 60 Given his record and his high profile in the technology and

60 An excerpt from a 1994 article published in Forbes provides a good example of the polemic tone used by Gilder to denounce any involvement of governments in the private sector. "In the industrial era, it was the so-called Robber Barons -- creators of the great industries of oil, steel, and finance -- who greased the growth of government with their chimerical menace. Radically reducing the prices of their products, such leaders as Rockefeller, Carnegie and Morgan expanded the economy to service the middle- and lower-income customers and laid the foundation for the American industrial leadership that triumphed in two world wars. But at the same time, charged with predatory pricing, collusive marketing, dumping and other competitive violations, Rockefeller, Carnegie and Morgan emerged as the monsters of monopoly who fueled the growth of government through the first 40 years of the century. Now, with information technology driving private sector wealth and power, there is a need for new monsters to fuel new sieges of
business community, Gilder was the ideal witness for the conservative Republicans who wanted to buttress a very deregulatory policy proposal.

In his testimony in Congress, Gilder indeed emphasized the futility of regulation in the face of technological change, especially wireless technologies. He advocated strongly for liberalization and the end of regulatory measures in the sector toward what he called the "freedom model."

A freedom model of deregulation would allow all existing companies, and new ones yet to be created, to buy and sell and enter each others' businesses without undue government interference or delay ... I would remove restrictions to cross-ownership of cable and telephone lines. It would not force companies to separate their functions unnaturally, and unprofitably, in subsidiaries and it would not impose delayed entry schedules and other insidious tests upon competition; and it would not demand universal service or other unnecessary and hidden entitlements.61

He repeated his attack against universal service provisions in his oral presentation, stressing how wireless technologies are making any attempt to provide cheaper service to rural areas useless, as the cost of providing service will be made uniform by these new technologies.

Now, there are issues that have been much of a concern for this committee and one is universal service. Now, I believe that over the last 50 years, with various cross-subsidies and mandates and special reserves, we have now achieved near universal service in the telephone industry, that is to say, there is 95 percent of American households with telephone service. Meanwhile, the technology itself, lowering the price of a variety of products, particularly components in television

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sets, has produced 98 percent coverage for television, with no requirement for universal service. 62

However, in his written testimony, he had good words for the early legislative draft, which as we mentioned earlier, did not include universal service provisions and was considered much less regulatory.

Mr. Chairman, last year I was concerned that the Congress was still trying to develop a regulatory regime based on an outdated belief in national monopolies in telecommunications. But this year I am more hopeful, particularly after production of this discussion draft advanced recently by Republican members of this committee.63

"Regular experts" such as Peter Huber, Henry Geller and Lee Selwyn presented arguments similar to their previous statements in congressional hearings. Peter Huber stressed the strong presence of competition in local phone markets and the existence of many FCC interconnection rules which would ensure fair competition. By the mid-1990s, Huber had published several books and articles on telecommunications law and policy, as well as on the use of scientific evidence in courts and the reform of liability laws (Kellogg, Thorne and Huber, 1992; Huber, 1991a; Huber, 1991b). For congressional staff looking for support for a deregulatory policy, Huber was a safe bet. Indeed, his generally conservative views could be found in most of his writings, especially in the articles he wrote for the business magazine Forbes. For instance, in an article published in February 1995, Huber proposed to abolish the FCC and to rely exclusively on antitrust laws and the Department of Justice to regulate the telecommunications industry. "The Bell breakup in 1984 unleashed a tremendous surge of competitive energy and innovation. The FCC sprawls across many more lines of business than Bell ever did and is as monopolist as any

62 Ibid., p.95.
63 Ibid., p.103.
institution can get. Like the Department of Energy, the Commission’s functions were conceived by people who believed that markets create scarcity and that government delivers abundance. The Commission is, in short, New Deal and Old Democrat, a relic of the past. Make it history.”

Henry Geller, even though supportive of the new legislative proposal, was more moderate in his remarks. He asserted that competition was not going to happen without some regulatory initiatives from the FCC or the State Commissions.

Henry Geller: As for facilitating competition, for the newcomers, it means the access provisions... For the incumbents, it means pricing flexibility to meet competition, rebalancing prices so you give off sound economic signals and doing universal service, which remains crucial, in the way that it is competitively neutral. ... Now, these principles are to be implemented by the FCC and the States... the States have to do the heavy lifting. I do think that there is a need for a Federal captain, however. The FCC not only should be able to forebear from regulating when effective competition results, but it should also be able to preempt the States and the localities, so where there is effective competition, there is no cartel management, there is no further regulated competition.

Representing, with Lee Selwyn, the other side of the argument, economics professor John Mayo put more emphasis on specific points such as the importance of having local competition before allowing the RBOCs in long-distance. He was attacking the date-certain approach favored in the initial Republican draft.

Local competition criterion prevents the RBOCs from pursuing anticompetitive practices in the long-distance market. It provides an objective, market-based standard for BOC reentry, it provides an economic incentive for the BOCs to relinquish their monopoly power over the local exchange market, minimizes the need for regulatory involvement and micromanagement of the market process, has

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served successfully to promote effective competition in the long-distance market for a decade.66

Lee Selwyn argued that local competition would not happen without regulatory actions. "In almost every instance of competitive presence in telecommunications today, ... competition is the result of affirmative actions by the legislature, by the judiciary and by regulators at the State and Federal levels. It did not happen by itself and it did not happen without considerable struggle and considerable resistance from the entrenched monopolies."67 He also criticized the trends toward price caps regulation instead of cost-based rate regulation.

In May 1995, the Senate Judiciary Committee, which also claimed jurisdiction over telecommunications, held hearings on the telecommunications bill. At that point, the Republicans had foregone the date-certain approach and included a check-list of elements that the FCC had to evaluate before allowing Bell companies to enter the long-distance market. The committee invited two experts to testify on the antitrust aspect of the legislation: Lawrence Sullivan from Berkeley University and Peter Huber. The former disputed that the bill provided sufficient protection against anticompetitive behavior.

Professor Sullivan: There are some things very unfortunately wrong with this bill, and the major one is that there is no adequate competition test. You have the checklist, but you do not have a standard that will assure that the local markets are competitive before you get long-distance entry by the local telephone companies. Another very unfortunate thing is that the agency of this Government [the DOJ] which is most knowledgeable ... to pass on a realistic competition test is just left of the loop.68

67Ibid., p.195.
Peter Huber, on the contrary, argued that the antitrust laws were sufficient to protect from anticompetitive behaviors. Requiring authorizations from the FCC or the DOJ for market entry is portrayed as useless procedures, which only delays the process. Senator Leahy, the Democrat from Vermont, challenged Huber on that point, as he had requested the hearing specifically so that the lack of DOJ's involvement could be raised.

Senator Leahy: Mr. Huber, you have argued very strongly that the Justice Department should not have a role in approving RBOCs' entry into long-distance service. You also wrote, as I recall, in Forbes, that the FCC should be abolished. Do you see a need for any Federal regulatory agency to look at the competitive impact of RBOC entry into the long-distance market?

Mr. Huber: I am certainly all in favor of keeping in place the antitrust laws. Nobody is talking about repealing State regulation. What we are talking about is removing procedures which now substitute for substantive judgment.\textsuperscript{69}

4.6 Experts in other political forums

My examination of experts in the political arena focuses on Congress. However, experts advise policymakers in several other forums. For instance, at the State level, public utility commissions also hold public hearings when they are considering changes to the regulation of the local telephone service. However, to limit the scope of my research, I focused on the federal policymaking process and did not investigate the decisions of the State regulatory agencies. Experts are also very involved in legal battles led by the telecommunications companies, as they are brought as expert witnesses into the courts (see section 6.4). However, my investigation focuses on the recognition of experts in the political sphere, not the legal arena. My research aims at understanding what are the criteria used by policymakers to select experts, not the criteria used by judges and lawyers. Therefore, I excluded the courts from my study; nevertheless, comparing the process of recognition of expertise in the political and the legal arenas could be a fruitful avenue for future research.

At the federal level, the FCC also has a process through which the public can comment on the regulations proposed by the Commission. The written comments filed by parties in FCC proceedings are almost exclusively from private firms who have interests at stake. For example, in Computer Inquiry III, the proceedings about "Open Network Architecture" and interconnection, only one expert, Ivan Shefrin a researcher at MIT, filed public comments. The great majority of the filed comments were from private firms involved in telecommunications services. Some agencies from the Administration (NITA, Justice) also sent their views, as well as some state commissions. The Bell companies had to present their ONA and interconnection plans. Parties could then file comments on these proposals. Similarly, the participants were telecommunications companies who had direct interests in the matter. In the 1990s, the proceedings on interconnection and collocation (cc docket 93-162) were also representative of most proceedings, in which independent experts were not participants in the process. The private firms and their attorneys were the central participants and argued their case based on their data. For instance, regional local telephone companies such as Ameritech and Pacific Bell explained the cost methodology they used to establish their rate level for interconnection and collocation.

The regulatory process at the FCC includes a variety of actors: executive agencies, state and local authorities and consumers groups. However, telecommunications firms with direct economic interest in the matter are overwhelmingly more prone to file their comments. The private parties and their attorneys are trying to convince the commissioners to decide in their favor or at least take actions which minimize their costs. From my observations, independent experts very rarely participate in FCC proceedings. Some experts may directly talk to the staff in informal meetings. However, an economist

70 Common Carrier Docket no.85-229.
who used to work at the FCC noted that external experts rarely have direct influence over the regulatory process in Washington.\textsuperscript{71}

In contrast to FCC proceedings, congressional hearings offer the opportunity to examine experts prescribing their policy advice as independent advisors. We may note here that expert witnesses would usually proffer the same policy prescriptions, whether or not their research is commissioned by private firms. Many interviewees stressed that "hired experts" do not change their views to please one group or one firm, but that they are hired because they already hold these views. More importantly, congressional hearings also present a rare chance to observe direct interactions between experts and policymakers. In the FCC proceedings, the Commissioners' relationship to experts is through written testimony or comments. Informal contacts can take place, but there are no records of those. Therefore, the legislative forum offers the best conditions to examine the relationship between experts and policymakers.

4.7 Conclusions

How was expertise introduced in the legislative process leading to the adoption of the Telecommunications Act of 1996? Policymakers in Congress did not seek recourse to procedures such as an advisory committee or a public inquiry to weigh the different views about competition in telecommunications. Nevertheless, some experts were involved in the congressional committee hearings. Analysis of how committees select expert witnesses shed light on the criteria policymakers used to decide who is a legitimate policy advisor. The witnesses invited to participate in congressional hearings as independent experts have many things in common. Firstly, most of them have formal credentials either

\textsuperscript{71} Interview with economist, Washington, D.C., October 3, 1999.
in economics or in telecommunications law. Moreover, their publications and previous research, work experience in universities and, importantly, in federal bureaus, appear to be the basis for the recognition of expertise. Indeed, many in this small group of individuals previously held senior positions at the FCC, the NTIA, the Antitrust Division or in relevant congressional committees. The possession of specialized knowledge combined with administrative experience in the relevant sector endows an individual with policy expertise in the eyes of the policymakers.

The selection of experts was mostly under the discretion of the congressional committees and usually not an open process where any individuals with specialized knowledge could come forward. This explains why some experts are invited many times to testify, whether it is about telecommunications or some other policy area. The staff and members of committees referred to experts they already knew. This process of testimony by invitation leans toward the creation of a relatively small network of experts on which the political arena relies. However, such a network does not allow for strongly dissenting views. The reliance on such an informal network has been examined by other scholars who suggest that such a selection process not only results in an "old-boy network" selection (i.e. recruitment of friends, acquaintances, previous colleagues), but mostly in very minimal effort to recruit dissenting experts. The group of experts invited to testify in Congress does not include all the experts on telecommunications. The experts I labeled as polyvalent and regular witnesses constitute the core, the top of the bill, of a network of experts on which policymakers have come to rely. One of the main commonalities of these experts is their support for competition in the telecommunications services sector. However, there are still disagreements among experts regarding the best policy practices

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to adopt for telecommunications services. As one of the interviewees explained, a central issue was the role of regulators in a competitive market.

Everyone agreed that competition was better than monopoly. The question is what this new era of competition means and how are we supposed to get there. That divided the world in two groups. 1) Those who believed that we can get to the competitive world by dropping the barriers, the existing regulations. That’s what you might call cold-turkey deregulation. That was driven by the “date-certain” proposal.

2) The other group say that we need to take certain steps to get away from the monopolistic past and into a competitive future. Therefore, regulators would have to guide the transition. This is what I like to call deregulatory industrial policy. Everyone believes in the benefits of deregulation and competition, but there is the group who says it can get done on its own ..., and those who say, no, we need a more guarded approach that is guided by benevolent regulators who will help make this transition to the future. That really became the new fault line, the division within the telecommunications world.73

Accordingly, the group of experts invited to participate in hearings leading to the Telecommunications Act is not one monolithic bloc. When one goes beyond the issue of liberalization, the consensus breaks along some important lines. The extent to which regulation is needed in a competitive environment is a controversial question. Economists such as Robert Crandall and various analysts, such as Peter Huber, George Gilder and Clay Whitehead, oppose regulatory measures-- they believe that relying on the self-correcting market mechanisms is the best way to achieve effective competition in that sector of the economy. Oftentimes, this group of experts will present monopoly as the result of regulatory and governmental actions, not the doing of private firms. Therefore, the role of the FCC should be very limited, if not completely eliminated, as suggested by Peter Huber, and universal service provisions should generally be disapproved. This pro-deregulation approach usually supports antitrust enforcement as the minimal type of

73 Interview with policy analyst, Washington, D.C., October 1, 1999.
regulation, although some experts such as George Gilder doubt the benefits of antitrust policies because they are seen as government meddling with private sector activities.

Opposing this pro-deregulation group, other experts believe that liberalizing telecommunications markets is not enough to ensure real competition. Given the characteristics of this sector, and especially the existence of a bottleneck at the local network level, they do not believe that simply removing the legal barriers to entry will allow new providers to offer services. The regulator, the FCC, has to ensure that the incumbents offer interconnection to new entrants at reasonable rates. Among other things, regulatory intervention is also needed to guarantee universal service. As we saw in this chapter, Eli Noam is a good example of an advocate for governmental support for universal service. Lee Selwyn, Philip Verveer, Dale Hatfield and John Mayo generally supported the view that some level of regulatory involvement was necessary in the telecommunications sector. Earlier in the debate, this was sometimes expressed by cautions against lifting the line-of-business restrictions. Later, these experts underlined the importance of the FCC and DOJ involvement in deciding when to let the RBOCs into long-distance and in creating the conditions propitious for fair competition. Implicit within this approach is the belief that some aspects of the network still show natural monopoly characteristics, specifically the local network. Technologies such as wireless or cable telephony are not considered an immediate threat to the local bottleneck.

As a general rule, the views of this latter group of experts are closer to Democrat than to Republican beliefs regarding the role of government in the private sector. In general, Democratic Members of Congress consider regulation beneficial and a requirement to achieving legitimate public policy goals. On the other hand, Republicans are often more reluctant to resort to governmental intervention in the economy, on the basis that the market is a self-correcting system that can only be disturbed by regulatory
measures. It is rarely seen as beneficial. The political division is not around the theme of competition, but regulation. "Competition is a theme that was attractive to both Republicans and Democrats. They differ on regulation and about how much regulation you need to get there, but the basic concept of a more competitive environment was one that was attractive to both."74

The cohesion of each political party around policy preferences on regulation is not complete, as many Republicans support various kinds of regulation and some Democrats are wary of producing efficient results by resorting to regulatory measures. Nevertheless, the difference between the two parties can be seen in the bills that were proposed in Congress. The bills prepared by Democrats, such as S.1822, granted an important regulatory role to the FCC and the DOJ and expanded the universal service system. As we discussed in the previous chapter, the earlier version of the Republican bill was very different; it limited the role of the FCC and the DOJ, and at first, did not discuss any universal service scheme. This early version was changed, but only after political pressures were exerted. The important point to remember about the experts invited to participate in congressional hearings is that they reflected political divergence. Given that one important criterion to select experts is their capacity to buttress one’s policy positions, experts in the political arena will represent the views present in the political spectrum.

74 Interview with congressional staffer, February, 29 1997, Washington, D.C.
In addition to the issue of regulation, other questions divided the experts invited to congressional hearings on telecommunications. One central point is the importance they grant to technology as a determining factor for policy change. Peter Huber and George Gilder stand apart on this. They pressed upon policymakers that the technological changes in telecommunications are such that earlier regulations and policies were obsolete. For other experts, especially economists, the main reason for supporting more competition and more deregulation is that these policies are always more efficient than monopoly and regulation.
Chapter 5: Members of Congress and Experts

5.1 Introduction

Our discussion of expertise in the political arena revealed a number of criteria that experts must meet to be recognized as relevant to policymakers. In this chapter, I focus on the interaction between policymakers and experts, once the latter are selected to offer their advice. During congressional hearings, experts not only make their presentations and offer their written statements; they are also subjected to interrogation by Members of Congress. Each member on the committee can ask questions to the witnesses and make comments on their presentations.

During these interactions, the political authority of the policymakers, based on the legitimacy of democratic representation, is confronted with the cognitive authority of specialized knowledge. In most instances, both sides show great deference to each other. Members of Congress respectfully ask the expert witnesses to explain their views, to counsel them on policy matters, to advise them on what policies Congress should follow. However, sometimes policymakers challenge the cognitive authority of experts. In the political arena, criteria used to distinguish between relevant advice-providers and others differ from those used in other social settings such as work environment or universities. The policymaker does not have the specialized knowledge of the expert but possesses political authority. In this asymmetrical relationship, the expert needs to be able to translate the jargon of his discipline or his field in plain language. On several occasions in committee hearings on telecommunications policy, policymakers stressed the importance of this criterion for the recognition of experts.
Another important criteria for the selection of experts relates to political factors: "how do the views of the expert witnesses buttress mine?" I raised earlier the question of the legitimizing role of expertise. Close examination of the interactions of policymakers and experts during public hearings provides support for the view of expertise as legitimation. However, the role of experts is not limited to the symbolic role of blessing the political process with their approval. Experts can also provide a real input in the policy process; their role as advisers to policymakers, even in the context of congressional hearings that are sometimes considered only a spectacle, can be witnessed in many instances.

Therefore, the examination of expert-policymaker interactions in this chapter addresses three main issues. First, does the cognitive authority of experts survive in this politicized environment which is Congress? Secondly, what role do experts play in these committee hearings? Thirdly, how did the framework of interpretation offered interact with the "world view" of the elected officials? Did the exposure to experts’ ideas cause the views of Members of Congress to converge toward one policy model?

5.2 Deference vs. challenging the experts

Given the status of formal knowledge in Western societies, one would expect the cognitive authority of formal knowledge to carry over to the political arena. The authority of experts should be reflected in the treatment policymakers give to experts. During congressional hearings, elected officials directly interact with experts, ask them questions, and offer comments. The treatment of experts during these interrogations shed light on policymakers’ outlook toward cognitive authority. Deferential treatment indicates that this authority is maintained.
Such a friendly interrogation will start by questions that build up the character and competence of the witness. It will allow the witness to put his or her strongest arguments up front and to anticipate the opposition's strongest rebuttals. The five-minute rule is ignored and the witnesses are invited to expand at length. If the witness lacks specific information, he or she is invited to submit later research, clarification for publication in the official record. Questions are often rhetorical: "Isn't it true that... or In your vast experience..." (Scheier and Gross, 1993, p.173).

From my observations of the record of the legislative activities surrounding the Telecommunications Act, Members of Congress usually show deference to experts. Indeed, deferential treatment can be witnessed throughout the hearings when members introduce expert panels, in their questioning and when they are offering their comments. The Chairman of the House Subcommittee on Telecommunications in 1990, Mr. Markey, during presentation of a panel of experts, provides us with an excellent example of such deferential treatment.

So we will turn to our first panel, which is an extremely distinguished one. It consists of Professor Laurence Tribe, who is the Ralph Tyler Professor of Constitutional Law at Harvard Law School, Mr. Richard Wiley, from the law firm of Wiley, Rein and Fielding and the former Chairman of the FCC.

Ordinarily, we give our witnesses 5 minutes in their opening statements. I think because of the complexity of the issues and the distinguished nature of this particular panel, we will grant each of them 7 minutes in their opening statements. We will also guarantee them that they will have plenty of opportunities during the question and answer period to elaborate upon the points which they are making in their statements.¹

Markey's introduction of the economist Alfred Kahn in 1987 is another excellent illustration of deference to expert authority. "Your expertise on a wide range of issues is

greatly admired and your comments in this area will be appreciated and I’m sure, very much looked upon by the committee for guidance in the coming months.” The respect Members of Congress have for experts’ formal knowledge is not always expressed in such elaborate terms. It also took the form of brief comments during interrogations, such as: “This committee needs help from experts.” Most of the interactions I examined between Congressmen and experts in congressional hearings took place in that manner: policymakers explicitly or implicitly recognizing that the formal knowledge the witnesses possess gives them greater credibility, and that receiving experts’ support for the bill or the topic under consideration mattered.

Despite the general deferential treatment reserved for experts testifying in Congress, policymakers sometimes challenged the authority of agents of formal knowledge. I observed a few episodes where Members of Congress challenged experts’ capacity to provide relevant and pertinent policy advice. Being out of touch with the real world and not being able to present sensible and understandable advice are the most common criticisms. The following excerpt from a House Subcommittee on Telecommunications’ hearings on the removal of the line-of-business restrictions in 1990 illustrates well the former criticism.

It’s not often we get two giants of law to explain both sides of a hotly contested issue to us. ... It seems to me we have really two very different giants of the law before us right now. One, Mr. Tribe, is a giant in what I would call the ivory tower world. As a graduate of your institution myself, I view with some skepticism the ability of the ivory tower to necessarily give us good public policy. Mr. Wiley, on the other hand, has lived in the real world and has administered these policies firsthand and seen exactly how these companies behave and misbehave.

... We know we have antitrust laws on the books, but I worry all the time about whether they work or not. Especially in the Reagan era, when I don’t see much of an active antitrust enforcement effort in the Justice’s Department. Not one comma of these laws has changed on the books and yet as a Nation, suddenly we went from one type of antitrust policy to a completely different one.

All you need to do is read the briefs of the Justice Department lawyers to see 180 degree-shift without one change in the law. How can we assume so blithely that we have antitrust laws that we can rely upon? To me, that speaks very eloquently of the ivory tower world.  

Similarly, in 1987, Mr. Markey, the chairman of the House subcommittee, lashed out against the jargon used during the debates on telecommunications. This diatribe also highlights the importance granted to televised hearings.

How does it affect ordinary people? What are the real restrictions that are placed upon giving access to the public to all these technologies? All the language which is constructed by all the experts basically excludes people from understanding what those restrictions are and what the real competing interests are and how the public can benefit. The public is without question harmed by the experts always protecting themselves by using the jargon of the industry. They could have easily a substitutable language that is understandable by the millions of people who are watching on C-Span today.

My great fear is that 99 out of 100 people who have watched this whole proceeding on C-Span have no idea of what half the terms are which experts used; yet these policies have incredible potential to benefit people in their everyday lives. And that’s one of the great tragedies of this whole debate, because it ought to be one of the most vibrant and exciting debates in our country. Instead, because the experts refuse to reduce it to intelligible terms, we wind up with a very small number of people making— you know, having debates that unfortunately exclude the vast bulk of the American people from it. 

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4 Mr. Markey, Modified Final Judgment, House Subcommittee on Telecommunications and Finance, Committee on Energy and Commerce, July 15, 30 and October 2, 1987, p.81-82, emphasis added..
In other instances, Members of Congress did not directly challenge the authority of experts. However, instead of simply accepting their advice and views as one single block of wisdom, Members questioned some of the experts’ specific propositions. These lines of questioning can last for many minutes, just on one specific issue. The following example focuses on lifting the restrictions on Bell companies’ diversification outside the local service market.

Mr. Swift: You indicate that the RBOCs shouldn’t be freed up until there is competition in the local loop. Do I understand that correctly?
Mr. Wiley: That would certainly be one of the tests, I think. ... I think, essentially it would be one of the major tests.
Mr. Swift: And I don’t know, your crystal ball is probably not a lot clearer than mine, but do you anticipate that occurring anytime in the near future?
Mr. Wiley: I think it’s developing. I think we see a variety of technology alternatives occurring now.
Mr. Swift: 5 years?
Mr. Wiley: Maybe the staff has a 10-year term. Maybe that’s it. Sometime within the next decade, I would hope.
Mr. Swift: You would hope, but it could be 20 years? ... It could be 30 years?
Mr. Wiley: Well, we could say it’s never going to happen. That’s not the point.
Mr. Swift: Well, what I’m suggesting by that is that if you tie doing anything in this area to competition in the local loop you are tying it to an indeterminate date. Can’t we agree on that? 5

The view that agents of formal knowledge, be they academics or experts in policy institutes, are out of touch with reality or that they do not know how to explain their views in common words has been expressed in some of my interviews. Being able to translate formal knowledge into politically-relevant language is viewed by interviewees as crucial to being recognized as an expert in the political arena. Congressional hearings confirm that the authority of experts in the political arena does not rest on their claim to specialized knowledge alone but also on their capacity to make this knowledge usable.

5.3 Information-seeking policymakers vs. expertise as legitimization

In the previous chapters, we witnessed how experts did not play a determinant and direct role in the construction and the adoption of the Telecommunications Act of 1996. In the next chapter, I will consider the indirect influence of expertise in the policy process. For now, I focus on the direct relationship between expert and policymaker, as observed in congressional hearings. These interactions provide written records of some of the rare occasions where the two actors meet. Do the Members of Congress use these occasions to acquire information and receive specific advice from experts?

Each public hearing is geared toward a variety of goals. For instance, the Chairman of the committee or the subcommittee may want to increase the profile of a question which is not very prominent on the political agenda. This type of hearing can have a more “educational” role. When Representative Markey called hearings in 1987, he knew that legislation would not be the immediate result. “It is time for the United States to develop a comprehensive and coherent telecommunications policy. ... The objective of these hearings is to prepare, to educate and to inform members as we assume our elected responsibility to establish domestic policy that draws a blueprint for the U.S. telecommunications industry’s future.”

Within the small political science literature dealing with them, congressional hearings are rarely portrayed as pure fact-finding exercises. They are presented as well-prepared, staged exercises and are often not given great importance in the policy process. Indeed, committees and members of Congress in general receive a lot of

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information from a number of sources. Lobbyists and interest groups will directly meet with politicians and their staff to present their views or will write to them. Congressional staffs have access to a great variety of information through the Library of Congress, the Congressional Research Service or the Congressional Budget Office. Nevertheless, hearings have multiple functions.

Hearings are a necessary stage in the life of most measures. They are also among the most orchestrated parts of the lawmaking process. Witness lists are drawn up with an eye to "making a record" on an issue, generating maximum interest, and seeing that those vitally concerned have a chance to be heard. ... By revealing patterns of support or opposition and by airing substantive problems, hearings indicate to members whether a bill is worth taking to the full chamber (Davidson and Oleszek, 1994, p.227).

Information-seeking interactions have to be considered in the context of the political functions of hearings. Therefore, the boundary between advice-seeking inquiries and other interactions is sometimes very thin. Nevertheless, one can still distinguish advice-seeking inquiries from the testimonies whose sole purpose is to provide legitimacy to the policymakers’ views and policies.

Even though we have noted that experts’ specific prescriptions are not a crucial variable to understand policymakers’ decisions, it remains that officials can use interrogations to gather information which can be incorporated in their views of what are the sound policy choices. Indeed, the transcripts regularly show interrogations of experts where policymakers were attempting to improve their knowledge of a specific issue. The information-seeking policymaker focuses on a specific question on which he or she needs clarification. For example, in the 1980s, when the FCC was preparing its Open Network Architecture decision, Members of Congress tried to understand the implications of these proceedings.
Member: Do you believe that collocation or virtual collocation requirements are necessary to have equal price access, and should a co-location requirement be part of ONA or comparably efficient interconnection ONA/CEI plans?

Rutkowski: "I think they should-- short answer. You might be aware of the fact that there are two definitions of virtual collocation. One relies upon a concept of sort of a condominium of moving equipment outside the office. The other is a concept that would allow vendors, enhanced services vendors, people that write software, to actually write and run software right in the BOC processor and increasingly that may be necessary with the emerging new switches to effectively implement true equal access and true competition and true fostering of innovation in the local exchange in the provision of services."

In addition to this type of technical advice, policymakers can also seek legal advice; for instance, Members of Congress requested the advice of constitutional experts in 1990 regarding the restrictions on the Bell companies. In this instance, the legal scholar made the distinction between the legal requirement and the economic criteria to use for crafting legislation on that topic.

Mr. Markey: Could you advise us to what you believe would be necessary in order to get any legislation which we would pass to measure up to constitutional muster.

Mr. Tribe: Certainly, Mr. Chairman. I don't think I have a particularly restrictive view of Congress's role here because I do believe that Congress has ample power as it exercised that power in the Sherman Act, and as it did in the FCC Act, to lay down general neutral guidelines of a sort that do not identify the speakers and say we don't want to hear from you. You can just carry other people's messages.

For example, Congress certainly has the power to tighten the Sherman Act and to act on the theory that Mr. Wiley has, to act on the theory that if you have monopoly power in one market you are bound to abuse it every time you enter an adjacent competitive market.

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A lot of economists think that that’s unsound and I doubt if Congress would want to do that. But that kind of general legislation would be acceptable. That’s very different from saying to GTE or to Pacific TELESYS or to AT&T or Associated Press that we don’t trust you and we don’t trust the FCC to guard you. That’s why for example when Mr. Wiley analogizes what’s proposed in this staff draft to the cable rules or cross-ownership bans, which are general rules that deal with the whole sector of the industry and not with a named list of companies, I think he’s missing the point. 

Policymakers are also seeking economic advice to inform their own views on economic questions. For instance, in this exchange between representative Rodino and economics professor Irwin from University of New Hampshire, the policymaker tried to get answers to the question: what were the economic consequences of AT&T divestiture?

Mr. Rodino: Was divestiture a good thing for the industry and the American public? Are you able to say now whether divestiture has been the cause of the increase in the local phone rates?

Mr. Irwin: Yes, I am quite positive, not merely on divestiture, but I am affirmative in terms of the benefits of deregulating markets and letting the entrepreneurial genius and the creative actions of American industry finally reach its full potential.

Mr. Rodino: Is this good for both industry and the consumer?

Mr. Irwin: I believe it is because the industry is a consumer as well as a supplier of products and services. Dr. Crandall will obviously comment on the realignment between [local] exchange rates and toll rates. My own view is: the reason local exchange rates are high is because of capital-intensive plant, of long depreciation life, of the absence of entry and the absence of technological change, and the incentive system associated with the rate base regulation ... 

Mr. Rodino: So would you answer no to the question: Is divestiture the cause of the increase in local phone rates?

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Mr. Irwin: I would say essentially no. I am an academic and we always hedge. I would essentially say no, but that the realignment would have taken place irrespective of the divestiture. Divestiture did perhaps expedite the process. ...

Mr. Rodino: Do you agree with the DOJ argument that the BOC control over the local bottleneck is diminishing because of technological innovation?

Mr. Irwin: ... the local exchange is still regarded by State Public Utilities Commission as a natural monopoly. I would say today’s bottleneck problem is as much a state regulatory issue as it is a technological one.9

I observed that information-seeking interactions were more common in the early development of the telecommunications policy process, when the interests of the parties and the positions of the politicians and their parties were more fluid. Indeed, as the policy process moved forward, the testimonies of experts and the subsequent interrogations were more often geared toward the legitimization of the positions of policymakers. As pointed out earlier, one of the main criteria to select one expert over another is the assurance that this particular witness will buttress the views expressed in the bill under consideration or, in the case of the opposition, that the expert will speak against the policy option the committee is examining. In these circumstances, one important direct role of experts is to provide legitimacy to one’s position or, as one interviewee said, to provide “the weight of serious intellectual respect.” Cognitive authority becomes a political asset, among others, to convince other Members of the validity of one’s views. This became especially apparent after 1994 when the new majority was very determined to pass a telecommunications bill and needed to persuade their colleagues of the importance and urgency to do so. For instance, in 1995, the presentations of George Gilder, Clay Whitehead, Peter Huber and Henry Geller during the Senate hearings were essentially planned to provide unequivocal support for a very deregulatory telecommunications

proposal and for a "date-certain" approach which did not require the FCC or the DOJ to authorize Bell’s entry after doing a competition test.

George Gilder: I believe that these opportunities are accelerating today and that with a full opportunity for deregulation, we can have at least 2 trillions$ in new asset values of American corporation created by the turn of the century, I think that is a feasible goal, if true deregulation is enacted.10

Clay Whitehead: The best thing the government can do, the best thing Congress can do, is to get rid of the regulatory uncertainty in telecommunications by enabling the industry and the users alike to get on with their business. ... Judicial tests of competitiveness as a precondition of open entry only invite outrageous arguments and add to the uncertainty. It would be far better to set a time certain for open entry and deregulation.11

Peter Huber: Mr. Chairman, broadcast, cable and telephone, local and long-distance, wireline, wireless and computers - these technologies are all converging. They can compete in the same market; they will, if regulators and Congress let them.12

In addition to the authority based on their specialized knowledge, some of these experts’ personal fame was also a source of support for politicians who wanted to convince other Members of Congress that a very extensive and rapid deregulation of the telecommunications service industry was necessary. George Gilder is the central figure of these Senate Commerce Committee hearings; the questions were almost exclusively addressed to him and Members were clearly interested in getting his opinions on telecommunications policy issues. Lesser known witnesses often received much less attention from Members.

I raised earlier the issue of the political criteria for experts’ selection; I noted that both sides of the aisle engaged in that selection process. Even though the minority party can only invite some of the experts, it will choose witnesses whose views will provide credibility to its opposition to the bill or the proposal on the table. As one of the experts explained:

Let’s be candid about it, oftentimes, the people on the Hill who hold these hearings, if they’re concerned about some particular policy, or they think the policy is going in the wrong direction, they select people who will be advocates; more antitrust, less antitrust. Of course, on the Hill, in the selection of witnesses, oftentimes, on the committee, there’s tension. One party may have a more aggressive stance. There is a negotiations process which leads to the selection of witnesses.13

Democratic members in 1995 brought in experts to back their opposition to the proposed bill. Professors Mayo and Sullivan were invited to counter the arguments that the new Republican bill was sound and appropriate policy. They attacked the date-certain approach and the lack of a test to determine when there is sufficient competition in the local markets to let the Bell companies enter the long-distance market.

Mr. Mayo: Senator, for the reasons I have described in the paper attached to my statement, I feel pretty strongly that the date certain approach is not the correct approach. I guess I disagree that local markets are open today. We have a situation where virtually 100 percent of the residential customers in this country do subscribe to the local exchange telephone company and do not have a choice about that. ... It seems to me that it would be a disservice to the country to allow monopolists into a competitive market with the possibility that they abuse those market powers by setting a condition for entry based on a calendar rather than based on market realities.14

Mr. Sullivan: There are some things very unfortunately wrong with this bill, and the major one is that there is no adequate competition test. You have the checklist, but you do not have a standard that will assure that the local markets are competitive before you get long-distance entry by the local telephone companies.

Another very unfortunate thing is that the agency of this Government [the DOJ] which is most knowledgeable ... to pass on a realistic competition test is just left out of the loop. 15

The partisan and adversarial nature of expert panels in congressional hearings reflects the fact that testimonies are often oriented towards legitimization of the bill under consideration or, for the opposition, undermining the credibility of the proponents. Even when the hearings are more information-seeking oriented, panels are often organized on a adversarial basis. For example, the 1987 panel with Professor Alfred Kahn, who believed that there was already a fairly high degree of competition in access, manufacturing and long-distance services, included Lee Selwyn, the consultant from Boston, who stated that because competition is so limited in telecommunications services, the restrictions on the BOCs should not be lifted by Congress.16 When asked more specifically about competition in the local telephone market, Kahn stressed the nature of the panel.

Kahn: I must observe at the outset that I have not studied this subject with the kind of care and detail others have and therefore, I cannot really give you any decisive answer. I do want to observe that you have set this up as a kind of adversarial testimony, in which one of the adversaries has represented the parties specifically on this subject and his general argument is that there isn’t much competition, and I have not done that kind of factual inquiry.17

17 Idem.
The adversarial nature of the panel is sometimes reflected in the exchanges between the experts during the question period. The following example of conflicts between experts is taken from the 1990 House Subcommittee hearings, where two legal experts, Lawrence Tribe and Richard Wiley, testified about lifting the RBOCs’ line-of-business restrictions for the information services market.

Tribe: In the information world, in the computer service world, with the competition that the Bells would face from Dow Jones, from the computer industry of the country, to suggest that within that market the Bells would be able to dominate and exercising market power, it seems to me that it raises questions about which of us live in the real world and which of us is in the ivory tower.

Wiley: Let’s just take that point. I think the Bell operating companies have tremendous contact at the local level for electronic yellow pages ... It would be very hard for other companies to enter that field. In fact, some of the BOCs have found it very difficult to enter somebody else’s region to provide these services. So I think, once again, Professor Tribe is giving his theories here that are unrelated to what is the real in the regulatory world.18

The adversarial nature of expert’s panels during congressional hearings only confirms the role of legitimization they play in the policy process. Experts are brought in by the two political parties to support their bills or their positions. Within this political forum, this role is seemingly more important than the one of information provider. However, I also observed that during the early phases of a long policy process, information-seeking interactions between policymakers and experts are more frequent. When the politicians are still unsure of what their interests are, when the structure of the debate is still “up for grab,” experts can act more as advisors.

5.4 Divergent views: the case of universal service

Policymakers generally reserved deferential treatment for experts. Policymakers often invite experts who will bring legitimacy to their policy positions by aligning their cognitive authority behind a legislative proposal. In these circumstances, the interactions between experts and policymakers are not truly conflictual, even though they may disagree on the specifics of the legislation at hand. The policy framework used by both may be not identical but compatible. For instance, competition in the provision of telecommunications services is preferred to monopoly as a general policy option by all experts brought in the political arena and by all elected officials. However, there are instances where the views of experts and policymakers clash.

One important issue where elected officials and experts do not converge, where there is even disagreement on the very definition of the problem, is universal service. Views of experts on that question often conflict with the beliefs of policymakers. On one hand, policymakers agree on the benefits of universal service. These views are especially strong among Senators from rural states.\(^{19}\) Universal service is often credited by politicians for the wide coverage of the national telephone network and the quality of the network. On the other hand, experts, especially economists, disapprove of this policy option which departs from market-based allocation of resources. One expert from a policy institute explained that Members of Congress, as a group:

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\(^{19}\) In a conference in Washington D.C. (December 10, 1999) at the recently created AEI-Brookings Joint Center on Regulatory Studies, Robert Crandall stressed the role of Congressmen from rural areas. When asked why a Republican Congress supported a universal service system such as the one in the Telecommunications Act, Crandall explained: “Because the “Farm Team” was in charge and wanted to see requirements to make sure that rural customers could pay low rates, despite the fact that offering services in these areas is very expensive.”
believe that it is a political necessity to keep rural and suburban rates low; whatever it takes to do that, they will do it. And that, more than anything else, was the driving factor behind much of what was done in the Telecommunications Act. ... That is the very deadly conflict that lies at the heart of the Telecommunications Act. You have, on one hand, a mandate for the market to become more competitive, to move away from the monopolistic, regulatory ways of the past. Then, you have another mandate that says: we want to preserve a system of cross-subsidies, a subsidization program that is completely and utterly antithetical to competitive markets.

The analyst further commented that experts oppose the latter mandate, as they view universal service as inefficient and useless. As he said, “policy analysts and academics all agree on this.”

But politically, policymakers, Senators more than Representatives in the House, feel that universal service is a political necessity. So much so, that in his testimony in front of the Commerce Committee, Senator Bob Dole who at the time was a majority leader and was very much deregulatory, said “it is so important to preserve universal service. It worked, it still works, there is nothing wrong with it.” They will not say anything against it.20

This relatively general agreement among politicians, both Republicans and Democrats, on the importance of preserving and/or expanding universal service may be linked to electoral concerns or ideological views, but it clearly contrasts with the view of neo-liberal economics which opposes this market-distorting policy option. Indeed, expert witnesses discussing universal service in hearings were challenging the purpose of such a system. On the basis that such policy distorts the true price of services and therefore impairs the economic efficiency of the industry, the mainstream expert advises against

20 Interview with policy institute analyst, Washington D.C., October 1, 1999. This interviewee later acknowledged that there may be some “liberal” experts who would consider universal service as a beneficial policy option.
expanding universal service and argues for a very limited and narrow support system, if not for the complete elimination of universal service plans.

Eli Noam was one of the rare exceptions to this dominant approach among experts. He supported the universal service scheme and worked on developing various policy options based on that preference. Indeed, his views, as expressed in congressional hearings, are that market mechanisms are not sufficient to ensure universal service and that some non-market mechanisms are required to fulfill this objective. He explained:

To conclude, why fix the old system? The answer is that the old system of universal service financing is a patchwork that barely holds together and that has become a stumbling block in the transition to a competitive telecommunications environment. **Competition and technology will not solve the universal service issue because the policy question here is not one of production efficiency, but rather distributional allocation. This problem will not go away with competition.** Competition forces us to consider universal service reform and universal service reform also accelerates competition.\(^{21}\)

Policymakers regularly expressed their strong support for universal service in congressional hearings, especially regarding service in rural areas. In the 1980s, in the debate about the lifting line-of-business restrictions, Congressman Staggers stated, “One concern I have, it pretty much follows up on what my colleague, Mr. Glickman was saying, I am concerned about rural America. ... What would be the effect on rural America? And if in fact we do allow the entrants in the market, what about universal service? Isn’t it likely that we will see universal service, the concept, being attacked also?”\(^{22}\) Later, in 1995, Senator Stevens, a Republican from Alaska expressed similar


concerns about rural service during an exchange with George Gilder, one of the panelists invited to that hearing. He also observed the gap between his views and the expert’s.

Senator Stevens: I represent a State that is one-fifth the size of the US, has over 200 native villages, over 100 small cities, that are really in the third-class level. They do not have the population or the taxbase to support government beyond that ... The bottom line is that telecommunications of the next century in those areas is not affordable...

I know that George, you have had some problems with my concepts about universal service ... I want to ask you, in your view of the telecommunications picture for the 21st century, what do you do about the problem of essential telecommunications services, as we dealt with the problem of essential air service?

I want to see a system which maintains, to the extent possible, the same advantages for cost. I call it the postage stamp system. I am sure you understand that. That means that no matter where you make the telephone call from, it will cost you no more than calling from any other area in the country, to go the same distance and get the same quality of service. Now, are you in agreement with the fact that the industry that you envision, through deregulation, taking barriers down, will give us that system for rural America, particularly isolated rural America, like I represent?

George Gilder: Yes, particularly isolated rural America. ... Wireless communications, through the digital revolution, are going to cost about one-tenth of what they cost today, and you are going to be able to serve remote rural areas with wireless telephone service just as cheaply as you can serve urban areas. You can use the same--

Senator Stevens: But, George, and I hope the other people- I have great admiration for you, but the big pool of money is going to be the system that serves the vast population centers of the country that have the cash-flow. The systems you mentioned will provide them service, but they have to come within the other system, and somehow or another, that system has to support them in terms of access, just like the postal service. Many people do not like the postal service, but it still delivers mail to the areas I have talked about; it costs a lot to get there, a lot more than the stamp costs, OK? 23

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The gap between the preferences of elected officials and the views of experts was even underlined by one of the experts adopting a deregulatory stance in the 1995 hearings on telecommunications reform. “I think we all have to realize that economists inherently do not like pools of funds; they are counter-productive in some ways of economic efficiency, ... but you have to keep in mind, and the economists and the people have to keep in mind, that this a democracy, where communications plays an especially important role, compared to other industries.” Recognizing the potential need for a universal service fund, Mr. Whitehead supported the idea of a very limited fund, directed toward specific needy individuals.

Another economist, Robert Crandall, discussed the gap between the views of economists and policymakers on universal service in his testimony in Congress.

It is important to note that all of the changes in the competitive structure of the telephone industry have occurred without the direct approval of Congress and undoubtedly against the better judgment of many of its Members. In short, the testimony that you are likely to hear from economists and will hear from me is at odds with much of the prevailing sentiment on Capitol Hill. The reasons for this difference of opinion are not difficult to find.

For most of the post-World War II period, telephone rates have been set by a political process. "Fairness" has dictated that persons choosing to live far from others in remote areas not be forced to pay the full costs of their communications with the outside world. Loquacious subscribers were not to be charged for tying up local circuits during busy hours. Long-distance users, preponderantly business customers, were asked to contribute an increasing share of the fixed costs of local circuits just as the technological barriers to entry into long-distance eased. Most of these political decisions made very little economic sense. They resulted in sending all telephone subscribers misleading signals about the true costs of the services they consumed. 25

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25 Robert Crandall, in Competition in the Telecommunications Industry: Hearings before
The importance and popularity of universal service among politicians can be seen throughout the Congressional Record. For example, in 1994, when Senator Hollings introduced S. 1822 to the Commerce Committee, all Senators present, Democrats and Republicans, focused their opening statements on the issue of universal service. Thus, Senator Hollings stated that “universal telephone services must be preserved and enhanced. Plain old telephone service is no longer adequate; consumers, health care specialists, students and disabled persons want higher capacity bandwidth delivered to their homes and offices.” Republican Senator Pressler also focused his opening statement on universal service and stressed that pricing for telecommunications services should not also be based on costs: “I think our country’s economic strength is based upon universal access to our telecommunications network. ... Geographical rate averaging should not be abandoned. Service to high-cost areas must not be priced beyond the reach of rural customers.”

Even after the election of the Republican majority, universal service remained the central concern for many Congressmen. However, the discourse of some Republican members, such as Senator Pressler, centred more around the theme of deregulation, in reaction to the anti-government sentiment of the new conservative Republicans. The

28 The following except from Senator Pressler’s opening statement to the Commerce Committee hearings in 1995 provides an example of this: “Our challenge is to overthrow the old regime of heavy regulation in these markets and replace it with a true market system. ... Old laws and regulations that serve no reasonable economic or social purpose are holding back American telecommunications firms from creating more jobs, offering new products and services and cutting costs to consumers. ...
support for provisions to ensure universal service was not without some dissenting voices. For instance, several of the new Republican members elected in 1994 were very conservative and considered almost all governmental intervention to be harmful; thus, some of them opposed universal service provisions.

Nevertheless, the great majority of Members of Congress, including Republicans, supported a universal service system, and it was included in the Telecommunications Act. Policymakers did not follow the prescriptions of the vast majority of experts who spoke against these "inefficient market distorting" provisions because their policy preferences were at odds with experts' prescriptions.29 In spite of all the cognitive authority, prestige and intellectual credibility that the agents of formal knowledge possessed, the disagreement remained and a new enhanced universal service system was enacted. The new plan not only served low-income users or customers in remote areas, it also provided substantial financial support for telecommunications infrastructures in public institutions such as schools, hospitals and libraries. Exposure to experts' ideas did not lead views of Members of Congress to converge toward the policy model offered by these advisors.

We have had the three apartheid economic areas of the long-distance companies, the regional Bell companies and of the cable companies" Hearing on Telecommunications Policy Reform, Senate Committee on Commerce, Science and Transportation, March 2, 1995, p.1.

29 For more examples, see the statements of Robert Crandall, Henry Geller, George Gilder and others about universal service in the previous chapter.
5. 5 Conclusions

What can we learn from examining the interactions between experts and policymakers in congressional committees? First, it appears that the cognitive authority is recognized by policymakers. In committee hearings, politicians usually treat experts with deference. However, experts' authority is not only based on the specialized knowledge experts claim to offer. When policymakers evaluate who are valid policy experts, other criteria than holding formal knowledge credentials have to be taken in account. To be recognized as a relevant expert, one needs to translate formal knowledge into clear, simple policy prescriptions. The work of translation is often better performed by experts who have prior experience in the government or in the policymaking process. The episodes where experts' role as valid advice providers is challenged are caused by a problem of translation.

The second conclusion of this chapter relates to the role of expertise in congressional policymaking. During the testimonies of experts in Congress, committee hearings rarely became "science courts" where economic evidence is thoroughly debated and policymakers must draw the line between "good economics" and "junk science." In this way, the use of expertise by Congress differs from its use by regulatory agencies. Agencies such as the FCC are constrained by judicial review to base their decisions on empirical evidence. They must go through a technical fact-finding phase, examine the empirical evidence available, and explain why they prefer one set of evidence to another (Jasanoff, 1995, see chapter 4). Regulators must also make a consistent use of empirical evidence, or be subjected to court review for not justifying a departure from previous technical decisions. Congressional decisions (i.e. legislation) are not held to such standards. Judicial review can only concern the constitutionality of the law, not its scientific soundness (or other elements for that matter). The use of expertise in the
legislative process is therefore much more flexible. Hence, many testimonies, especially in the last phase of the policy process, are rather general statements of the expert's position on the policy under scrutiny and not detailed factual presentations of evidence.

If the recommendations of experts involved in the legislative process rarely has a direct influence on the content of the legislation, why are they invited to testify in hearings? Examination of the Congressional Record points to the symbolic use of cognitive authority by policymakers. Democrats and Republicans each invited experts who were closer to their point of view, in order to legitimize their positions. The main stakeholders in the process such as the long-distance companies and the Bell companies, also put forward expertise to support their demands in the political process. Similarly, the Department of Justice resorted to independent expertise from Peter Huber to legitimize its policy reversal concerning the line-of-business restrictions in 1987. The cognitive authority of the experts invited to testify or to participate in other ways in the policy process is based on their formal credentials and their previous experiences in the sector, often in senior positions of the relevant agencies. Moreover, the selection of an expert is also based on his position in the policy debate. Policymakers, as well as the firms who introduced expertise in the process, must be confident that the experts will support their positions. In that case, the cognitive authority of the experts is bestowed upon the policymakers or private groups' position, conferring legitimacy to their proposition.

The legitimizing power of external expertise seems to be considered greater than internal expertise. For private firms as for governmental organizations, external expertise (in most cases consulting firms or university professors), provides a stamp of approval with greater credibility than expertise produced internally. Based on the belief that external expertise is more likely to be independent of biases, more neutral and value-free, political actors bring in economic evidence to support their positions. One could speculate
that the more controversial the position, the more likely it is that external expertise will be introduced in the debate. I witnessed this phenomenon on some occasions in my study. For example, in 1976, when AT&T presented cost studies to support its preference for monopoly, the firm felt the need to refer to external experts (consulting firms and academics) to legitimize its data, and consequently, its position.

I am not suggesting here that expertise provides no substantial input to policymaking. However, the role of legitimization, and even of advocacy played by experts directly involved in the public arena, has to be recognized. One could even propose that the whole hearings process be regarded as legitimizing policymakers' decisions, creating a political spectacle to ensure public support (or at least quiescence) for the public policy. "In democratic countries these institutions [elections, legislative debate and enactment of laws, and courtroom rituals] reinforce beliefs in the reality of citizen participation in government and in the rational basis of governmental decisions, regardless of what it is said in the course of the proceedings on particular occasions" (Edelman, 1967, p.12, emphasis added). By conducting lengthy hearings, policymakers can argue that both sides of the coin were considered, the pros and cons weighed, and the best compromise concerning competition in the telecommunications service sector was reached. Even though these hearings were dominated by the business community, the publicness of the process and the interrogation of "the foremost experts on the subject." granted a more general legitimacy to policymaking.30

30 The symbolic role of congressional hearings is reinforced by the ceremonials of the process. "Seated together in a group facing the witness, committee members make an impressive appearance. They enjoy something of the same institutional dignity that surrounds a group of judges in a courtroom" (Schneier and Gross, 1993, p.173).
Chapter 6: Experts and the New Telecommunications Policy Paradigm

The previous chapters revealed that experts have little *direct* influence over the actual content of legislation. Even though experts were present in the policy process as witnesses in hearings or as consultants for private firms, one could hardly point at a precise element of the Telecommunications Act that derived from expert recommendations or advice. Nevertheless, expertise *indirectly* influenced policy change in telecommunications policy. In this chapter, I move beyond examining experts who were involved in the congressional policy process and investigate formal knowledge dealing with the telecommunications industry. I analyze how expert knowledge can transform the basic assumptions that are the premise for the debate and the parameters of public discourse on telecommunications.

First, I scrutinize how recent economic literature on telecommunications regulation challenged the view that the local telephone exchange is a natural monopoly and therefore transformed the debate on the subject by suggesting competition is possible. Second, I present the role of government experts in the shift from the monopoly to the pro-competition policy paradigm. In the review of literature, I noted that the entry of Keynesian economists into the governmental bureaucracy was a major factor in the diffusion of Keynesian policies in industrialized countries. Here I will examine how economists played the same role in the case of pro-competitive telecommunications policies. Next, I turn to experts in policy institutes who can also be important agents of transmission of new expert knowledge from the academic world to the political arena. Finally, I briefly discuss the role of expertise originating from the industry; telecommunications companies often hired consultant firms or academic experts to participate in the debate.
6.1 Academic experts

As producers of formal knowledge, academics hold a particular position among experts. These "teacher-researchers" located in universities control the production of new knowledge, its standardization and codification, and its diffusion through the training of future practitioners (Freidson, 1986; Wittrock and Wagner, 1996). Teaching in universities allows academics to spend time on activities with little marketplace monetary value, such as research and writing, and provides them with a living. Therefore, they can play a strategic role in producing new formal knowledge as well as in transmitting it. Practitioners rarely have free time to engage in the production of knowledge.

Academic experts producing formal knowledge on telecommunications policy form a large group, and the academic literature on telecommunications is vast and extensive. In the most recent of these academic publications (1984-1996), the field is dominated by the discipline of economics and, more specifically, by a group that I label neo-liberal economists. This group can be included in mainstream micro-economics whose current dominant paradigm regards government intervention as harmful to the general welfare, except for some very specific market failures where it may be beneficial.

Historically, the market failure that justified governmental regulation of telecommunications was based on the natural monopoly argument. According to this theory, economies of scale were such in this industry that only one firm could supply the service. However, once a firm was granted a monopoly, there were risks that it would abuse its position by, for example, surcharging the customers. Thus, the government had to regulate the firm's activity to ensure it behaved properly.
As reviewed in Chapter Two, theories of natural monopoly and other market failures justified the regulation of many industries in the United States, including telecommunications, electricity, and the airline industry. However, beginning in the 1960s and throughout the 1970s, these theories came under attack from academic economists. According to these economists, it was necessary to end regulation and the granting of monopoly, given the economic inefficiencies caused by the government's intervention. This body of literature was very influential in remodeling the policy paradigm which governs regulatory policies in the United States, including the regulation of the telecommunications industry. The goals and the legitimacy of these economic policies were challenged. In the sector of transportation (trucking and airlines) in the 1970s, reliance on competition was increased and many regulatory measures disappeared in reaction to the economists' critique and proposals for change. These early policy changes also served as a model for further liberalization and deregulation.

The case of telecommunications liberalization presents some deviations from the general pattern. Whereas some decisions took place in Congress, the first major liberalization in telecommunications was the result of a legal process governed by an antitrust policy paradigm. Even though both the antitrust and the neo-liberal paradigms have a marked preference for competition over monopoly, they do not envision the role of the State in similar fashion. The legalist premise of the antitrust policy paradigm entails that the State, through regulation or other interventions, enforces fair competition. The line-of-business restrictions on the RBOCs illustrate such positions.

Moreover, the academic consensus around the validity of the natural monopoly in telecommunications took longer to disintegrate than in other sectors. "Academic and government analysts of telecommunications policy were [not ready...] in the
mid-1970s to give competition unlimited scope, nor even to say with any precision or agreement how far competition should be permitted to go" (Derthick and Quirk, 1985, p.138). Indeed, the settlement between the Department of Justice and AT&T was based on the premise that the local exchange was still a natural monopoly and that barriers to entry (in the form of the enormous investments necessary to create infrastructures) prevented new competitors from challenging the incumbents. The line-of-business' restrictions were put in place in order to prevent the RBOCs from taking advantage of their monopoly power.

However, in the 1980s and the 1990s, after the break-up of AT&T and the introduction of competition in the long-distance market, an increasing number of academic economists advocated total liberalization. These economists stated that the monopoly should be ended in the local market and agreed on the necessity to end the restrictions imposed by the MFJ. Evans and Heckman (1984) proposed empirical evidence that the Bell system was not a natural monopoly. Wenders' textbook on the economics of telecommunications defended the position "from an economic standpoint, that local service can be largely deregulated" (Wenders, 1987, p.231). He argued that the only way to know if local service is a natural monopoly is to open the local market to competition. Indeed, he explained later that the cost analyses used to study the existence of natural monopoly were not producing valid results because they were based on data generated by a regime of regulated monopoly not open competition (Wenders, 1992). Shing and Ying (1992) performed global subadditivity tests suggesting that local exchange carriers (LECs) are not natural monopolies. "Breaking up the LECs would likely produce considerable cost savings to society. The tests support permitting entry into local exchange markets" (Shing and Ying, 1992, p.181). Other empirical research stressed that competition improves allocative efficiency of the incumbent telecommunications firms (Oum and Zhang, 1995).
Moreover, it was argued that "since the AT&T divestiture, substantial technological and industry transformations have rendered the natural monopoly argument invalid" (Spulber, 1995, p.34). Indeed, the RBOCs already faced some competition or potential competitors. In the intra-state long-distance market, the Bell companies were competing with the long-distance firms. Some heavy users of communications services bypassed the local exchange carriers by building their own networks or by relying on competitive access providers (CAPs), which build optical fiber networks in urban areas to directly link the business users to long-distance carriers. Potential competition could come from wireless networks or cable telephony (Crandall, 1991c; Baumol and Sidak, 1994a; Cramer, 1994; Rosston and Teece, 1995).

Economists also studied the impact of the AT&T divestiture on the telecommunications industry (see Crandall, 1988b; Kaestner and B.Kahn, 1992, 1990, Hausman, Tardiff and Belinfante, 1993; Kaserman, Mayo and Flynn, 1990; Kaserman and Mayo, 1994a and 1994b). The results of these studies usually supported the decision to open the long-distance market to competitive entry. They showed gains in efficiency, the absence of negative impact on telephone penetration, and the absence of predatory strategies or tacit collusion among competitors.

An investigation of the evolution of structure, conduct and performance in the interexchange industry in the decade following the divestiture of AT&T provides considerable reassurance that Judge Greene's goal of creating a truly competitive industry has been realized and that the fears expressed in the early 1980s were, in fact, misplaced. ... Thus, the competition advocates appear to have won the forecasting contest (Kaserman and Mayo, 1994, p.102).

On the basis of such findings, economists recommended further liberalization and deregulation of the sector.

This neo-liberal economic literature generally advocated very limited governmental regulation of the telecommunications industry. According to this
approach, the cost of State intervention would almost always be greater than its advantages.

Any artificial barriers to alternative carriers should be removed and, in addition, positive steps can be taken to make competition viable. The first step is to remove the exclusive franchise of the present local companies and not require any certification or regulation of entrants (Wenders, 1987, p.250).

Our least surprising conclusion is that, wherever they can be relied upon to do the job, market forces are preferable to governmental intervention. Whenever competition has become sufficiently powerful to protect the legitimate interests of both consumers and related firms, the local telephone company should be granted full freedom from regulation (Baumol and Sidak, 1994, p.4-5).

The issue of deregulation is, however, not as consensual as the issue of liberalization. Indeed, even though mainstream economists would advise for deregulation, there are some economists who still support various forms of regulation in the telecommunications sector, especially regarding universal service and interconnection. As discussed earlier, Eli Noam is a good example of such an economist who strays from the mainstream view.

The economics literature on telecommunications is concerned with many other issues more or less directly linked to the debates about monopoly vs. competition and the lifting of the line-of-business restrictions. For example, there is a vast literature on the use of price-caps to replace rate-of-return regulation. One very important issue directly related to competition is the question of efficient pricing of telecommunications services. Efficient pricing was considered a crucial condition for competition as well as a consequence of it (Kahn, 1984; Kahn and Shew, 1987; Mitchell and Vogelsang, 1991; Baumol and Sidak, 1994b). Efficient pricing "requires that services be priced at their marginal costs" (Kahn, 1984, p.140). However, pricing of telecommunications services often deviated from that principle. Historically, the monopolistic position of AT&T allowed it to price its services based on criteria other
than marginal costs. One of the most important digressions is the cross-subsidization of local phone calls and access to the network for residential users by long-distance services and business customers. Long-distance calls were very overpriced (relative to their cost) in order to recover the under-priced local phone service. This cross-subsidization allowed the phone company and the regulators to attain a valued goal, i.e. universal service. Other pricing practices have been criticized by economists for departing from economic efficiency, such as the averaging of rates between urban and rural customers and flat rates for local calls regardless of the amount of usage at peak hours.

Competition represents a threat for the pricing system elaborated under monopolistic conditions. "As regulatory barriers to entry have been relaxed, competitors have naturally flocked into the [overcharged] markets, thereby threatening to dry up the profits used to hold down basic residential rates" (Kahn and Shew, 1987, p.193). Most importantly, efficient pricing practices were presented in the economics literature as necessary conditions for competition in telecommunications. For example, Baumol and Sidak (1994b) proposed efficient ways to price some parts of the local network that are necessary inputs for the RBOCs’ competitors. Others have discussed the importance of unbundling telephone services to allow competitors to buy each single component of the network they wish to use in their final communication products. Such pricing arrangements would encourage entry of competitors in the local market (Mitchell et al., 1994).

The centers of production and diffusion of this economics literature are varied. The most important journals are the Yale Journal on Regulation, the Journal of Regulatory Economics and the Rand Journal of Economics (which used to be the Bell Journal of Economics and Management). It is not possible to identify one university as the center of this literature, but one can point to the role of the American Enterprise
Institute in the production and the publication of research related to competition and pricing. I will come back to the role of the American Enterprise Institute later in this chapter.

The economics literature, even though important, is not the only one dealing with telecommunications policies. The legal discipline also produces formal knowledge of telecommunications policies. Journals such as the *Federal Telecommunications Law Journal* and the more recent *Tellcomm Conspectus*, as well as the various legal textbooks and doctrinal texts represent an important corpus. However, the principles put forward by the economics literature are very present in legal academia. Obviously, there is still legal scholarship based on the examination of jurisprudence. For example, communications law volumes discuss the evolution and application of the notion of "common carrier" through the examination of legal texts and court decisions about its definition and the obligation it involves (Hamburg and Brotman, 1995). Another example of traditional legal scholarship is the examination of consistency in regulators' decisions. Indeed, "administrative law promotes consistency in agency decision-making by requiring not only reasoned decisions supported by evidence in the record, but also a careful explanation of the reasons for departing from relevant precedent" (Lavey, 1994, p.438). Thus, Lavey examined the inconsistencies in the application of economics by the FCC's regulators, and Frieden (1987) examined the lack of economic evidence supporting the FCC's Third Computer Inquiry decision.

Nevertheless, much of the legal scholarship on telecommunications is influenced by principles enunciated by the economics literature. Legal journals publish many articles from economists (see, for example Selwyn, 1988; Weissman, 1989; Haring and Levitz, 1991; Larson, 1993; Hausman and Tardiff, 1995; Kaserman and Mayo, 1996). Articles from legal experts also frequently refer to economic principles. Moreover, antitrust law literature and practice, which are important to
telecommunications policy, have been very strongly influenced by economics since the 1960s. As Eisner (1991) explains, antitrust legal experts have been, for a long time, lacking a coherent and articulate doctrine on which to base antitrust enforcement. The economics discipline provided an "organizing paradigm," explicit standards according to which antitrust cases should or should not be prosecuted. Therefore, antitrust elements of telecommunications policy are also under the auspices of the economics discipline.

In addition to the influence of economics on legal scholarship, legal experts increasingly endorse neo-liberal economic guidelines on regulatory policies. Thus, pro-competition and deregulation policies are increasingly advocated by legal experts on telecommunications. For instance, in a report on regulatory reform commissioned by the American Bar Association, it was recommended that

the following principles guide future consideration of whether and how to regulate:
1. Free market competition, protected by the antitrust laws, is presumptively the most reliable method of ensuring an efficient allocation of resources at the lowest prices and the highest quality.
2. No regulatory mechanism is capable of replicating the complex interaction of supply and demand characteristic of free market operations or of instilling in individual firms the necessary incentives to be efficient. In general, therefore, regulation may be expected to slow the pace and intensity of innovation, decrease efficiency, misallocate resources, create shortages and raise prices to consumers. ...
3. In light of these factors, competition, not regulation, is the better method of dealing quickly and equitably with temporary crises or market dislocations such as the oil embargo of the 1970s (Flexner, 1985, p.21-22).

Such positions on the inefficient nature of regulation and on the self-regulating, efficient nature of market competition are very similar to those supported by economists writing on regulation. Another legal expert advocating competition in telecommunications was Mark Fowler. This lawyer, who headed the FCC during the Reagan administration, co-authored an article in the Federal Communications Law
Journal with two legal experts from the FCC in 1986. The article promoted competition in the local exchange market (Fowler, Halprin and Schlichting, 1986). Fowler also suggested a three-year plan between the states and the federal government to test competition in local telephony.¹

The increasing influence of economics on the legal scholarship in telecommunications policy is part of a larger "law and economics" movement. In fact, it is part of a broader movement of economics being applied to a wide variety of disciplines and problems which I will discuss in the next chapter. Starting in the 1970s, the "law and economics" movement advocated the application of economic criteria to legal decisions in a wide range of sectors (see Posner, 1977, 1987). This general trend has been analyzed as an attempt by the legal discipline to build a stronger "scientific" foundation of law, but it has also been portrayed as a scholarly justification for more conservative legal decisions (Hackney, 1997).

The legal discipline’s strategy of making legal expertise more "scientific" by including economic analysis can be seen as an attempt to increase the cognitive authority of law. "More scientific" can be defined here as using the methods and procedures originating from natural sciences. As I will discuss in the next chapter, economics was able to increase its cognitive authority by relying on methods of inquiry used in natural sciences, such as quantification and most importantly, formalization. Greater reliance on economics in legal expertise can provide the same credibility and prestige to the latter. I should stress here that the definition of science as a set of methods and procedures is one way, among multiple ones, in which agents of formal knowledge can define science. The definition of science adopted by a group is driven by its own attempt to gain authoritative status, with the symbolic and material benefits

which stem from it. Indeed, science is "nothing but a space, one that acquires its authority precisely from and through episodic negotiations of its flexible and contextually contingent borders and territories. Science is a kind of spatial marker for cognitive authority, empty until its insides get filled and its borders drawn amidst context-bound negotiations over who and what is "scientific" (Gieryn, 1995, p.405, emphasis added).

The adoption of principles of economics in the legal scholarship on telecommunications took many forms. It influenced views on the nature of State intervention in the economy. As neo-liberal economics became more influential in academic circles, the notion that legal and regulatory interventions were needed to remedy the failures of market forces was challenged. Market failures by themselves were not considered sufficient to justify intervention. Moreover, the application of economic efficiency as a guiding principle in legal decisions (as well as in policymaking) modified how issues were approached. For example, the issue of pricing telecommunications services became increasingly defined in terms of efficient pricing or cost-based pricing rather than the legal criteria of "reasonable and just tariffs" (Kellogg, Thorne and Huber, 1992).

Despite the dominance of neo-classical economics over the provision of formal knowledge on telecommunications policy, some dissenting experts offered divergent views. One example is the corpus of academic knowledge from institutional economics, as illustrated in articles about telecommunications policy published in the Journal of Economic Issues (Trebing, 1986; Gabel, 1991; Miller, 1993). The perspective adopted by institutional economists differed so much from mainstream economics that they even identified themselves as adopting a different paradigm. This paradigm does not take competition as the ideal system of allocating resources. Thus, they do not see the transition to competition in the telecommunications industry as
inevitable or as the best alternative to regulatory failures. The institutionalist critique of the neo-classical approach to regulation is multi-faceted (Trebing, 1987). It critiques, among other things, the quasi-theological commitment to competition and market-oriented solutions of neo-classical economics in which regulation is denied any positive role; the belief that all social values can be reflected in monetary values; the methodological assumptions about distribution of income, welfare standards and institutional change, which "preclude scholarly consideration of alternative social arrangements;" and the normative use of the competitive model as a criterion for public policy (Trebing, 1987).

Another example of dissenting economic analysis comes from radical economics. Baiman (1995) asserts that the pro-competition and deregulation policy changes in telecommunications "have drawn their major ideological legitimation from neo-classical economic theory" and argues that "contrary to the neo-classical prescription, competition cannot substitute for regulation, if historic public policy goals in telecommunications are to be preserved" (p.96). He stresses that competition and deregulation in telecommunications leads to lower prices for high-volume and generally higher-income customers and to higher prices for low-volume and usually lower-income customers.

These dissenting economics perspectives were not included in the policy process, and their adherents were not regarded as experts on telecommunications. Why has only neo-classical economics made its way into the political arena and why are only its adherents recognized as legitimate advice providers? The hierarchical structure of academic disciplines provides an important answer to this question. By considering academic disciplines as "reputationally controlled systems of knowledge production" (Whitley, 1984, 1987), one can examine how a hierarchy comes to exist within a discipline and how this structure will be reflected in the political arena.
Economics is a highly standardized discipline with a clear reputational hierarchy: neo-classical theory, especially the most abstract and formal models, has the greatest prestige. The hierarchy of intellectual prestige is reproduced by standardized textbooks and curricula as well as by a strict hierarchy in the distribution of resources. Publication in the most prestigious journals is conditional on one's adherence to neo-classical economics and at the same time is a validation of one's research. "Research which ignores current priorities and approaches and which challenges current standards and ideals is unlikely to be published in academic journals, let alone lead to a high degree of recognition. Because the dominant intellectual structure of modern economics is relatively monolithic and the criteria for assessing the significance of research results are remarkably standardized, major innovations can easily be dismissed as being outside economics and/or the result of incompetence" (Whitley, 1987, p.192).

Therefore, publications about telecommunications from institutional or radical economists are ignored by mainstream economics, as these approaches are not at the core of the disciplinary prestige hierarchy, but at its periphery. They are published in journals that are not the prestigious academic journals such as the American Economic Review and their authors do not hold positions in the top universities. Economists

2 Whitley explains: "Because intellectual skills are so standardized in economics, intellectual deviance is quite easy to detect and control through denunciation as incompetence. ... Thus researchers in economics are quite dependent on colleagues/competitors for reputations and cannot legitimately seek approval from noneconomists for their intellectual contributions. The leaders of economics can therefore exert considerable influence over research strategies and intellectual approaches through their control over the definition of economists' skills and identities" (Whitley, 1987, p.193-194).

3 "A small number of graduate schools produce a high proportion of Ph.Ds in economics who publish in the leading journals and obtain jobs in prestigious departments, who serve as officers and advisers for the professional association and its journal and who receive the highest honors. This relatively high degree of concentration of control over valued resources enables the senior staff at the elite
whom I label "neo-liberal" hold positions at universities such as Cornell (Kahn), Princeton (Baumol) and Northwestern (Spulber), whereas Baiman is at Roosevelt University (in Chicago), Miller is not affiliated with any institutions, Trebing is at Michigan State University, and Gabel is at Queens College. As "peripheral economics" is not granted recognition and prestige within this group of experts, the political arena does not recognize them either. To be validated as a legitimate provider of policy advice, formal knowledge producers have first to be validated by their peers.

Some other dissenting views about telecommunications have come from outside economics. Some scholars in communication studies challenged the relevance of competition and deregulation in telecommunications (Mosco, 1990; Wilson, 1992). Vincent Mosco, a professor of journalism at Carleton University, contests the view that competition and deregulation benefits consumers. He argues that even though, on average, long-distance call prices decreased and the price of local calls increased with competition and deregulation, the distribution of the costs has changed. Local individual callers are paying a greater share of the network's costs, whereas high-volume users are paying much less. Mosco attacks the economic efficiency argument which opposes the subsidization of local service with moneys from the long-distance revenues:

The economic subsidy argument is a justification for a shift in policy that reflects the growing power of large users and the perception that, as telecommunications takes on greater global strategic significance, policies must be devised to meet the needs of these users. The argument is particularly powerful because it carries the authority of economic science. It is a modern fairy tale, one that convinces because constructed out of the technicism and scientism that today render such tales legitimate (Mosco, 1990, p.41).

graduate schools to determine the standards governing research skills and the characteristics of 'good' economists" (Whitley, 1987, p.202).

4 On the ranking of graduate schools in the United States, see Research-Doctorate Programs in the United States, National Research Council, 1997.
Wilson (1992) proposes that economists may have overlooked the continued existence of a natural monopoly at the local exchange level and argues that other objectives than economic efficiency should be considered when making public policies.\(^5\) Social goals such as income distribution, employment or stability could also be taken into consideration. As with dissenting economists, the dissenting views presented by these experts are not incorporated in the political debates about telecommunications policy. Thus, experts invited to public hearings may disagree on some points (such as the timing for lifting RBOCs' line-of-business restrictions), but they all agree on the main issues such as economic efficiency.

After having discussed the dominance of neo-classical economics on the academic scene, I should come back to the question of influence. What impact did the economics literature on telecommunications have on public policy? More precisely, how has economics influenced the adoption of liberalization policies in the American telecommunications services sector? As we saw in previous chapters, economic principles did not result in actually influencing the specifics of the law on telecommunications. The Telecommunications Act of 1996 was a product of political negotiations and lobbying, not a transposition of economists' recommendations.

Nevertheless, economic experts were influential. Neo-liberal economists provided a coherent justification for the end of the monopoly in telecommunications services. They provided a conceptual framework or a new policy paradigm within

\(^5\) Wilson also confirms the dominance of economics in telecommunications policy: "To date, public debates on telecommunications have taken place largely in an arena characterized by theory and speculation, and the discourse of specialists: ... What will be the likely impact of competition on efficiency? How efficient is regulation, and so on. Economists, the gurus and apologists of corporate interests, have been privileged participants in this debate. Indeed, they have fairly succeeded in setting the parameters of the debate itself: what is useful to discuss; what is irrelevant; what the objectives of public policy should be; how best to attain these objectives" (Wilson, 1992, p.364).
which the role of government regulation was reconsidered. This view of the role of academic economics is widely shared by the interviewees who were involved in the policy process or who were attentive observers of the sector. One congressional staffer explained the role of experts in these terms:

By far, in my view, the primary and almost exclusive influence on the lawmakers is what is going on in the business community and not so much the analysis that is going on in the academic world. But there is an important but very indirect link between what goes on in the academic world and the information that the lawmakers are using. That indirect link is that, within academic circles, some issues will become organized in a certain way and those organizational and analytical tools, over time, automatically slip into the discussions in Congress.6

An economist at a policy institute agreed with this view:

Experts, economists are heavily involved in telecommunications but not in the day-to-day lobbying leading to legislation. For instance, the pressure to bring about competition surely came from the enormous academic research agenda that has shown how competition had worked in other areas. ... But when it got down to the last six months, it was mostly the lobbyists and the lawyers arguing back and forth.7

Another expert, an engineer, further explained during the interview the impact of academic experts in these terms:

Academics played an important role, not in terms of cause and effect, but people who want to change things need some intellectual underpinnings, some support. The economists, the neo-classical economists really played a critical role. For example, teaching me, as an engineer, how to think about these problems from an economic perspective. For example, the classic way of

6 Interview with Congress staffer, tape 10, Washington DC, March 4, 1997, emphasis added. Stressing this point, he went on to say: "It is not the case that members of Congress and staffs, and certainly not members, spend a lot of time looking through policy journals. I have never seen that happen and if anyone in our committee's staff would be doing it, it would be me. I assure you, I don't. It's a question of time, it's a question of immediacy."

thinking was the notion that you could look at the network in terms of different parts: the long-distance, the local, and the CPE. If you look at economies of scale, the traditional argument for a monopoly, and economists help develop the notion that you look at the part of the network. It is possible to have competition in long-distance because the economies of scale are not compelling.

To get the sort of changes you are talking about, there has to be some intellectual support, especially from the academic community, the policy research community. It gives some credibility to some of the changes.\(^8\)

Thanks to the growing consensus among agents of formal knowledge, valuing competition in all segments of the telecommunications industry has become an increasingly accepted view. In addition to the influence of economists in creating a climate propitious to certain political change, a senior official who was at the Justice Department during the policy process leading to the Telecommunications Act also observed the relationship of private firms with economists. This issue will be discussed more in Chapter 7.

[Experts] are very influential. They had a big impact. It is a smart investment for the Bells to give money to economists because these experts have stature and they work in respectable think tanks. ... Experts were not so involved in the last couple of years of the process, leading to the Act, but they created the climate. Some ideas such as the entry of Bells in long-distance gained credibility. It takes time. It took them 12 years after the MFJ in 1984. But experts offered the conceptual basis to open long-distance. They had a major role before the Act, through conferences, publications. Ideas are power.\(^9\)

An economist who used to be at the FCC focused his answer on the role of academic economists in regulatory policymaking rather than the legislative process. He

\(^8\) Interview with academic expert, Washington, D.C., November 3, 1999, emphasis added.
\(^9\) Interview with ex-senior official at the Justice Department, December 10, 1999, Washington, D.C.
noted the influence of economic advisors, especially when the senior officials at the Commission were more open to economic views.

The influence of academic literature is limited because economics literature is technical in nature, which is not relevant to policymakers. Senior officials will not read this literature, they may be not capable to read the technical aspect as it is too specialized. Moreover, it is not getting at the problems they have to deal with. ... However, the economic literature has an indirect influence. The theoretical and empirical research becomes the base of knowledge of what is known in economics. The academic literature will become the base of knowledge.

Political leaders will not be economists and some will have a favorable view of economists, some not. If they do, they will rely on senior economists in their staff to translate that knowledge for them.

Examining the making of the Telecommunications Act demonstrated that experts were not influential political actors when it came to preparing the actual policy design and its adoption. The question then became: were experts influential during the agenda setting phases of the policy process, when the issues at stake were still unclear and the debate unstructured? The economics literature on telecommunications submitted that liberalization, i.e. the open entry of competitors into the sector, would be a wise policy choice. One of the Telecommunications Act’s main objectives is to achieve that policy goal. The economics literature suggested that the line-of-business restrictions on the RBOCs should be lifted, and they were (conditionally to competition in the local loop). Is there a causal link between these prescriptions and the policy choices made by officials?

Our interviewees all thought so. It is not a direct link, as the diffusion of ideas is usually not a linear, simple process. In the next sections, I will identify the main components of the process. These conclusions about the impact of academic knowledge confirm the findings of the comparative politics literature. The consequences of academic expertise are not to be found in specific policy measures but
in the more general orientations of policy change. The question is then: how were principles of neo-classical economics about telecommunications regulation diffused into the political arena? The transmission of the academic proposals and ideas can take various routes. The literature has stressed the importance of the entry of a certain groups of experts into governmental institutions and agencies for the diffusion of these new ideas. The next section will explore the importance of this route for the diffusion of the pro-competition policy paradigm in telecommunications. I will then examine another means of transmission that has received less attention, namely policy institutes.

6.2 Experts in government

The literature on the rise of Keynesian economic policies points to the importance of the entry of Keynesian economists into State bureaucracies in the adoption of such measures (Winch, 1969; Hall, 1989). Similarly, it has been proposed that the entry of economists into the American public service was a necessary condition for the diffusion of deregulatory and pro-competition policy ideas (Derthick and Quirk, 1985; Eisner, 1991). My own observations confirm that an important avenue for transmitting economists' views to the political arena is through economics-trained civil servants involved in making telecommunications policy.

The employment of economists by governments became widespread in industrialized countries after World War II. This was part of a trend of an increasing division of social labor and professionalisation of work (Coats, 1981) but it was also linked to the growing intervention of the State in the economy throughout the 20th century and the need for information on economic conditions. The assumption that the economic well-being of the citizens was the responsibility of the State not only created a need for economic information but also for governmental institutions in charge of
monitoring and regulating economic activity (Furner and Supple, 1990). The increased role of the State in the economy in the 20th century can be attributed to many factors. However, one of its clear effects was the massive entry of economists into public bureaucracies, especially after the war. Naturally, the extent of the entry of economists varied from one country to another, according to the traditions of each public service.

In the United States, economists are found not only in departments responsible for macro-economic planning but in almost every sector of the government. "Beginning in the 1960s, economists and economic analysis were introduced as a significant new element in the formulation of policy in agencies all across the federal government" (Nelson, 1987, p.77, see also Pechman, 1989). Economists were also increasingly involved in regulatory policymaking. In the 1970s, the creation and expansion of planning and evaluation offices in regulatory agencies to deal with the new regulatory review process offered a great opportunity for economic experts to hold positions in the governmental organizations (Nelson, 1987; Eisner, 1993). These offices introduced cost-benefit analysis and economic criteria in regulatory decisionmaking as a way to respond to much of the criticism of regulation. The entry of economists into these organizations induced the dominance of the economists' "professional norms and analytic assumptions," i.e. a strong commitment to market mechanisms, competition and economic efficiency (Eisner, 1993).¹⁰ Moreover, economists entering the regulatory agencies were aware of the economics literature

¹⁰ The rise of economists in regulatory agencies is recognized by lawyers working with them. A report of the American Bar Association on the role of the Federal Trade Commission (FTC) stated: "Before the 1970s, FTC economists had relatively little substantive impact. In the years since, their role has been transformed. Rather than simply gathering statistics to support pre-existing positions, economists are increasingly involved in selecting cases, developing theories by which they may be prosecuted and formulating appropriate remedies" (American Bar Association, Antitrust Law Journal, 1989).
attacking regulation. Therefore, they served as agents of transmission or diffusion of the economics critique and were in position to implement their prescriptions.

In governmental agencies involved in telecommunications policy, legal expertise has historically been the dominant type of expertise. Lawyers are still more numerous than economists in the main organizations such as the FCC and the Antitrust division (300 lawyers). Nevertheless, the rise of economists in these organizations in the late 1970s facilitated the diffusion of the competition paradigm. The configuration of internal economic expertise on telecommunications mirrors the fragmentation of American political institutions. Economists are to be found in the various institutions involved in making policy in telecommunications. The key source of expertise within the government is the Federal Communications Commission (FCC), an agency which employs about fifty economists. The expansion of the role of economists at the FCC took place during the appointment of chairman Charles Ferris, starting in 1977 (Horwitz, 1989; Derthick and Quirk, 1985). During this period, the Office of Planning and Policy (OPP) was enlarged and headed by an economist who was critical of traditional regulation, Nina Cornell. The OPP is a sort of internal

11 The economist Alfred Kahn said about the entry of economists into the regulatory process: "Economists have a particular advantage when it comes to taking a direct role in the regulatory process. The job is an extremely technical one and becomes more so each year. It used to be done almost exclusively by lawyers and politicians, with accountants and engineers as assistants. But for decades there has been great and increasing dissatisfaction with their performance. One important criticism has been that they were behaving too much like lawyers and bookkeepers, excessively concerned with proper administrative procedures, the balancing of equities, and the measurement and covering of accounting costs, and too little like economists, paying practically no attention to things such as marginal costs, elasticities of demand or the dynamic conditions of innovation and growth. For these and other reasons that will appear later, economists have been drawn more and more into the process, bringing with them their own esoteric terminology and tools; the lawyers that have failed to seek their direct cooperation find they cannot understand what their opponents' witnesses are saying" (Kahn, 1970, p.15).

12 In 1980, she wrote a working paper arguing that "increased competition in the
think tank staffed with only about a dozen economists, but it is a central organization in terms of policymaking, given its focus on long-term policy planning. The OPP frequently publishes policy papers to guide FCC policies and advises the various bureaus. The creation of the OPP signaled that economists, rather than acting only as technicians, were now taking part in the policymaking process at the FCC.

If you go back, economists were here, but they were just collecting statistics; they were not economists, like you and I would think. The key was the formation of the Office of Plans and Policy, the Pepper office. It was designed to be interdisciplinary, to look across and look at the broader picture. That's when the economists were brought in at what we call the “8th floor,” in other words, at the Commission level. Nina Cornell is a name that pops up and she ran the office. That's when the economists began to be influential inside the Commission, I think.

Likewise, the policy bureau of the Common Carrier Bureau is mostly staffed with economists. The growing group of economists in strategic positions within the regulatory agency has been a central force propelling liberalizing initiatives, given the policy preferences of these experts.

In the 1980s and the 1990s, the presence of economists at the FCC was maintained at every level of the bureaucratic hierarchy. For example, Gerald Brock, an economist supporting competition and deregulation, worked at the OPP from 1983 to

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common carrier communications industry is compatible with the achievement of social goals, and that many of the goals may be unattainable without competitive forces" (Cornell, Kelley and Greenhalghm, 1980, p.2).

At the end of the 1970s, the chief of the Common Carrier Bureau was also replaced by a strong defendant of pro-competitive deregulation, a lawyer, Philip Verveer.

13 See annex 1 for a complete list of OPP working papers.


Even though economists became more important at the FCC, through the creation of positions such as chief economist, the commissioners usually had a legal or business background. Indeed, most commissioners are not economists (the current commissioner Furchgott-Roth with a Ph.D. in economics from Stanford University is the exception). These positions are very political ones, i.e. commissioners and chairmen are nominated by the President and have to represent a political party. Indeed, only three commissioners may be members of the same political party. Loyalty and political considerations may be more important than the type of expertise they posses to select FCC commissioners.
1986, moved up to the Common Carrier Bureau and became its chief from 1987 to 1989. Economists are not only found at the OPP but also in the various bureaus of the Commission. In addition to the FCC's chief economist, chief economists are appointed to the main bureaus to review the economic soundness of regulatory decisions. The FCC's chief economist does not have staff of his own but coordinates economic research in all the bureaus. Michael Katz, who held the position of chief economist from 1994 to 1996, considered his role as making sure "economic analysis is an intrinsic part of the agency's decision-making process. If the economists are there from the start, the lawyers will have to listen to them." In accordance with the hierarchical structure of the economics discipline discussed earlier, these senior economists at the FCC mostly graduated from prestigious schools where they were trained in mainstream neo-classical economics. One of the interviewees stressed that senior economists are influential because they translate the economics literature in policy terms for the decisionmakers of the FCC (the Chairman, the Commissionners). Senior economists can influence the agenda setting process. "For example, they can use the OPP working papers. These

15 "He [Gerald Brock] happened to be the chief of Common Carrier Bureau at the Commission in the 1980s when the Commission really begin to take a very strong deregulatory turn. And I think he was very influential." Interview with administration official, tape 1, Washington DC, February 26, 1997.
16 Micheal Katz, quoted in Broadcasting and Cable, April 1994.
17 Gerald Brock received his Ph.D from Harvard University. FCC's chief economist in 1996, Joseph Farrell, studied at Oxford University and was professor at UC-Berkeley and at MIT. The bureaus' chief economists, in 1996, Jerry Duval (Mass Media), Doug Galbi (International Bureau), Daniel Hodes (Cable Services Bureau), Gregory Rosston (Common Carrier Bureau) and Tom Spavins (Competition Division), respectively received their graduate degrees from the American University, MIT and Oxford University, New York University, Stanford University, and Yale University.
18 The difference between senior economists and "technical" was also stressed by this interviewee: "The role of these senior economic advisors is to first give credible and politically tenable advice. What are the appropriate compromises which should be made. It is important to differentiate between the senior economists (staff advisors) and the many staff economists who do the routine work. The question to ask is who is running the agenda? The support staff is important but they are not involved with decision-making. The senior economists help set the agenda, at times very much so." Interview with ex-FCC economist, Washington, D.C., October 4, 1999.
papers, by individual authors, are often trial balloons.” The same economist asserted that the influence of economists at the FCC started increasing in the 1970s; this occurred because the new policy context was more propitious, that is, the new policy goals were to augment competition, an objective more in line with economists’ policy prescriptions. Economists are not bound by the legal tradition, by precedent decisions. “Economists have a different disciplinary perspective and if your goal is to add competition, you don’t want lawyers, you want economists.” The political context of the 1980s was also especially favorable to economists. The conservative views of the Reagan administration, including FCC Chairman Fowler, were close to “what economists at the FCC/OPP tend to believe in, based on the issue of efficiency: eliminate regulation, allow entry, competition. They are not identical, but are quite similar.”

From the examination of the working papers published by the FCC's Office of Plans and Policy, one can confirm that economics thinking dominated the organization. The mainstream economics literature is the base for these documents. The positions advanced in these documents are in agreement with the neo-liberal positions on regulation. For example, in a review of the empirical research on how to determine whether a market is a natural monopoly or not, a report concludes that "if what the FCC wants to know is whether a competitive industry structure is viable and regulation unneeded, it should 'test-market' actual competition. Attempts to achieve some desired configuration of market shares through regulatory means may serve other ends, but they invalidate the use of market information as an indicator of competitive status or comparative efficiency" (Haring, 1984, p.4). Many economists who worked at the FCC, especially the senior staff, came from university settings and went back to

academic life. Their role as diffusers of the economics literature on regulation is therefore stronger. Not only have they been trained in neo-classical economics, but their careers have been in producing and developing this literature.

The economic analysis introduced at the FCC gradually transformed the regulatory decisions of the organization. The FCC became more active in supporting competition, often taking the initiative in the matter. Indeed, the role of the FCC in the liberalization of telecommunications services was determinant. At an early stage, the FCC took actions which opened segments of the industry. Thus, the impact of economic expertise on FCC actions can be measured by the pro-competition and deregulatory stance taken by the agency starting at the end of the 1970s. These initiatives were important in setting the stage and structuring the public debates about liberalization. As we saw in the previous chapter, the FCC allowed competition in the provision of private lines and of satellite communications in the 1970s. The FCC liberalized the market for customer premise equipment and for enhanced services (services including a certain amount of computer or data processing) in 1980 with its Computer Decision II. In 1982, the FCC announced its access charge decision: a monthly charge of two dollars, increasing over the years to six dollars, would be added to the local phone bill of residential customers to get the price of access closer to costs. By doing so, the FCC was hoping to facilitate entry into long-distance and to decrease long-distance rates closer to costs.

Moreover, in the 1980s and 1990s, the FCC adopted some important decisions to prepare and allow competition in the local exchange. Most of these decisions were related to the issue of interconnection. Possible entrants in local markets, as well as existing firms in the long-distance market needed to use the facilities of the RBOCs or some part of it, to offer their services. However, the RBOCs, given their monopoly,
could overcharge these communications firms. On the basis of this problem of "bottleneck," the FCC regulated the interconnection with local exchange networks.

The Computer Inquiry III orders issued by the FCC from 1986 to 1988 aimed at providing interconnection for enhanced services providers in order to overcome the bottleneck problem. The RBOCs had to offer "comparably efficient interconnection" (CEI) and to propose "open network architecture" (ONA). The CEI standard required the local exchange carrier to offer its competitor access to basic services of equal quality to what it provided for its own enhanced services. The ONA requirement was even more important than CEI. "An ONA should permit all users of the basic network to interconnect to basic network functions on an unbundled and equal access basis" (Vogelsang and Mitchell, 1997, p.138). The enhanced services providers could choose which part of the network they would need and build the most suitable arrangement.

Another important example of FCC action paving the way to local competition occurred in October 1992 when the FCC ordered the Bell companies to offer physical collocation to all parties requesting it for interconnection (Vogelsang and Mitchell, 1997). Collocation is a key element in terms of giving access to the local network owned by the RBOCs. With the adoption of these measures, the FCC demonstrated that competition was feasible and that the technical and regulatory requirements could be put in place to ensure fair competition in local markets. The situation is perceived as such by the FCC official I interviewed.

Because we were doing those things [showing that] these were not natural monopolies but opportunities for competition, it gave greater confidence to people in Congress. ... Had we not been doing those things, people would

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22 The U.S. Court of Appeals for the District of Columbia Circuit overturned this decision in June 1994. The FCC modified its requirement and ordered virtual collocation arrangements.
say: we cannot have competition [in the local exchange], it is not going to work.\textsuperscript{23}

The second source of internal expertise in the American telecommunications policy network is to be found at the Antitrust Division of the Department of Justice. This organization is mainly staffed with lawyers. Until the 1960s, few economists were included in the professional staff of the division. They mostly held positions without policymaking power and were under the supervision of attorneys who needed their help for some specific tasks. In the mid-1960s, the situation began to shift toward a greater involvement of economists in the decision-making of the Antitrust Division. The assistant attorney general at the time, Donald Turner, was a legal expert with a Ph.D in economics who introduced greater economic analysis to the selection of antitrust cases. At the beginning of the 1970s, the role of economists was expanded further by the creation of Economic Policy Office (EPO) within the Division.

The central goal underlying the creation of the EPO was to form an economic staff that was large enough and of high enough quality that an economist could be assigned to every case at an early stage. Rather than merely providing attorneys with technical assistance, economists would work as independent analysts. The difference between the two roles was quite significant. As members of a support staff, economists offered economic analysis, only to have it supplement noneconomic evidence when building a case. Legal reasoning and simple structural decision rules that were easily employed by attorneys continued to shape the decision to prosecute. As independent analysts, economists would assume a much different position in relationship to the lawyers. They could engage in ongoing detailed analysis, thus affecting change at the process level and having a significant impact on case selection (Eisner, 1991, p.137).

The enlargement of the role of economists at the Antitrust Division in the 1970s was doubled with the rise of the Chicago school of industrial organization (see Eisner, 1991). The disciplinary orthodoxy in antitrust economics indeed shifted from

\textsuperscript{23} Interview with FCC official, tape 4, Washington D.C., February 28, 1997.
what can be called the "structure-conduct-performance" paradigm to the minimal intervention preferences of the Chicago school. The economics discipline's view of antitrust was informed up to that point by a series of considerations of the negative effects of concentration and barriers to entry on competition. This structuralist approach commanded a quite active antitrust enforcement to ensure the benefits of open markets with a great number of small actors. The Chicago school challenged the importance of entry barriers and concentration. It is propounded that the market is a self-regulating system where governmental intervention is almost always negative. To let the market operate without obstruction (in this case antitrust enforcement) is to ensure the greatest market efficiency. For instance, if a firm is so large as to be inefficient, the market forces will drive it out of business. The growing dominance of this approach, combined with the greater presence of economists within the institution at the beginning of the 1970s, modified the antitrust policies of the United States (in term of prosecutorial activity), even before political decisions from the executive were made about it. Indeed, in the 1980s, during the Reagan administration, the Chicago school economists dominated the political nominations as well as the policy discourse in the sector. However, the policy change had begun more than a decade earlier.24

The Antitrust Division was central in structuring the debate about competition in telecommunications, given its role in the divestiture agreement. The head of the Division from 1981 to 1983, William Baxter was a conservative legal expert influenced by the Chicago school; he strongly believed in the benefits of competition and was an important actor in reaching an agreement with AT&T. A well-known law professor at Stanford University, Baxter was recognized as a believer in economic theory and the

24 Reagan's most important action on the Antitrust Division was the drastic staff cut. In 1980, there were 352 attorneys and economists working at the Antitrust Division, with a ratio of 1.5 economists for each 10 attorneys. In 1986, the number dropped to 166, but with a ratio of 2.9 economists for each 10 attorneys (Eisner, 1991, p.190). By the 1990s, the Economic Bureau itself was composed of about 50 economists.
benefits of private enterprise, who opposed government meddling in the marketplace. ... Yet, on the basis of those same economic theories, Baxter strongly believed the AT&T suit was valid and necessary, should be vigorously prosecuted by the government" (Cole, 1991, p.5). Despite opposition within the Reagan Administration, Baxter pursued his goal of creating competition through breaking the monopoly of AT&T, especially by prohibiting the latter from using its bottleneck local exchange monopolies.

After the adoption of the settlement, the Antitrust Division still had the responsibility for the MFJ. In its triennial review of the MFJ in 1987, it proposed to cancel the line-of-business restrictions it had set earlier. To prepare this review, the Antitrust Division had hired a consultant, Peter Huber. The division usually relies on in-house expertise; this was actually the only instance where the bureau hired a consultant for research of such importance. As discussed previously, the need to legitimize a reversal of the Antitrust Division's position after only few years explains in great part the resort to external expertise.

Two other federal organizations are relevant to telecommunications policymaking in the US: the National Telecommunications and Information Agency (NTIA) and the Council of Economic Advisers (CEA). They have an advisory role and can be considered diffusers of policy ideas. They did not have real influence on agenda-setting or policymaking per se, but they are part of the policy network; their reports and studies have a reinforcement impact on the sector. By stating the importance of having competition, of implementing more efficient pricing practices, etc., these organizations strengthened the policy consensus supporting such policy options.
The NTIA is a Department of Commerce office responsible for advising the President on telecommunications affairs and for representing the Administration on the international scene. The NTIA's Office of Policy and Analysis Development (OPAD) is more specifically concerned with telecommunications policymaking. It is a small unit of about ten professionals which combines economic, legal and engineering expertise. In addition to advising, it publishes papers proposing policy measures to adopt in the sector. Throughout the 1980s and the 1990s, NTIA supported pro-competitive measures. In its extensive review of the sector in 1988, the agency explicitly recommended "more reliance on competitive marketplace forces and incentives [... and removal of] barriers to competition including in local exchange and cable services." 25

A final source of economic expertise within the government is the CEA. In its reports of 1991 and 1993, the Council supported the end of the line-of-business restrictions. "Potential economies of scope between the local exchange and other markets are limited or lost when the telephone companies are barred from related business. The lesson from easing previous restrictions is that increased competition produces additional benefits that cannot be foreseen today" (CEA, 1991, p.148). Likewise, the 1993 report advocated for competition in local telephone services on the basis that it can lower prices and augment the diversity of services. In 1996, after the adoption of the Telecommunications Act, the Council devoted a whole chapter of its report to telecommunications. The chapter, prepared by a CEA economist from Georgetown University, Marius Scharwtz, can be viewed as post-legitimization of policy change. CEA reports are written in plain English, have the legislative policymakers as their public, and are widely circulated among the members of

25 NTIA, Telecom 2000: Charting the Course of a New Century, Department of Commerce, 1988, p.86.
Congress. The Administration can use the report to prepare the terrain for future initiatives and/or to consolidate support for present change.

In conclusion, economists are to be found in every branch of the administrative apparatus, most importantly at the FCC. Their professional norms and knowledge base came to dominate the policy discourse on telecommunications. Competition and efficiency became not only "buzzwords," but they indicated the new parameters within which policy should be considered. The pre-eminence of neo-liberal economics was translated into many regulatory decisions which paved the way for the more complete liberalization of the telecommunications services industry. Moreover, the presence of economists in other offices such as the NTIA and the CEA reinforced the consensus around the relevant policy choices and the economic rationale for their adoption.

The situation in the bureaucracy supporting the legislative branch is quite different. The staffs on congressional committees are rarely economists, but mostly lawyers. For example, of approximately 70 staffers employed by the House Commerce Committee in 1996-97, only one was a professional economist. Moreover, the professional background of staffers is often considered irrelevant. As one staffer narrates, the ability to weigh political interests is often much more important.

Congress is a place where it's very easy to get by based on figuring out the politics of an issue, talking to people on the phone, figuring out the political dynamics and never having to consider the merits, the details of how this makes sense or not. And there is a lot of that thinking that goes on. How does this affect my boss? Does it make sense for [my boss] to be promoting local telephone competition? Well, some people would say, well, look at who it affects in the state of [my boss]. Local phone companies, they are not going to like it. [A long-distance carrier] is the sponsor of [a major sport event] in the state every year. So, they pour a bunch a money into the state. So, that's going to be important for [my boss] because [the long-distance carrier] would like local phone competition. How about manufacturers? Would they like it or
not? Well, which manufacturers are based [in that state]? Talk to them. That's one way. There is a lot of that thinking. It's part of politics.26

Despite the weak institutional presence of economists in Congress, the legislative branch was not isolated from the influence of the new economic thinking on telecommunications policy. We have seen in the previous chapter that congressional hearings enabled many economists to present their views. Even though their recommendations did not have a direct impact on the writing of the Telecommunications Act, they affected the policy discourse in the policy sector. By representing sound policies in terms of liberalization, cost-based pricing, and economic efficiency, economists created and propagated a new policy paradigm. The diffusion of the paradigm through administrative routes was even more effective, as it directly influenced regulatory policies which, in turn, forced the legislators to react to a transforming policy context. In the next section, I discuss an alternative route of policy diffusion: policy institutes.

6.3 Experts in policy institutes

Policy institutes constitute a rather original feature of the 20th century American configuration of policy expertise. Policy institutes can be found in almost every industrialized country, but the sheer number and diversity of American institutes is quite distinctive (Weiss, 1992). They are non-profit private organizations offering specialized expertise in order to improve the content of public policies. Their main output is policy analysis, and their goal is to communicate this analysis and advice to policymakers. Professionals hired by these organizations are from different backgrounds, but economics is clearly the dominant type of expertise to be found. Policy institutes can rely on numerous channels to disseminate their ideas.

26Interview with Congressional staff, tape 5, Washington D.C., February 28, 1997.
The ideas may, through briefings and private communications, circulate within the oral culture of Washington policymakers and their staffs. The articles and reports issuing from think tanks may, at times, be encountered when digested as Op-Ed page articles or summarized in the popular media. Books and reports may be read by experts or a knowledgeable public and over time a shared perspective and consensus may evolve (Smith, 1989, p. 183).

The "trickle-down" process is important, as members of Congress and even their staff can rarely spare time to read a complete book from a policy institute. Indeed, inquiries (Obey Commission, 1978) and testimonies from staffers met during my research pointed out that very little time is devoted by members of Congress and their staffs to consulting the publications from policy institutes.

Despite some common attributes, policy institutes in the United States are very diversified. First, their size and budgets vary greatly. Numerous small research institutes are staffed with ten to twenty professionals with a budget under one million dollars, whereas the largest ones, such as the Brookings Institutions, the Urban Institute, the Heritage Foundation or the American Enterprise Foundation, rely on one to two hundred employees and a budget of nine to fourteen million dollars (Smith, 1989). Moreover, some institutes like the Brookings Institution are more oriented toward the production of academic scholarship. Their analysts publish in academic journals and participate in disciplinary meetings. On the other hand, others focus more on the day-to-day policymaking process and the publication of short reports and memos to be distributed to policymakers. These organizations also grant importance to the dissemination of their ideas through personal contacts and persuasion of the policymakers, the members of Congress in particular. For example, one third of the Heritage Foundation's resources are devoted to marketing the organization's research. Furthermore, some policy institutes claim relative objectivity and neutrality in their policy advice, whereas others explicitly declare preferences toward certain types of
policies. The conservative think tanks are especially unambiguous about their predilection for policies that restrain the role of the State in the economy or in the civil society in general.27 As an analyst at the Heritage Foundation stated: "Everybody knows that the Heritage Foundation is conservative in general in its outlook, very free-market oriented and always has been."28

The two major conservative think-tanks in Washington, the American Enterprise Institute (AEI) and the Heritage Foundation, were very active in the policy process leading to the adoption of the Telecommunications Act of 1996. With the Brookings Institute, they can be considered the second channel through which economic expertise reached and influenced policymakers. Policy institutes are however a more "explicit route" than the entry of economists in governmental organizations involved in telecommunications. Indeed, economists in government influence policymaking by importing their professional norms and practices into the organizations, sometimes without an explicit agenda of transforming telecommunications regulation. The policy institutes' first and foremost objective is to provide formal knowledge to devise public policies, and in the telecommunications sector, the expertise provided by policy institutes is exclusively of an economic nature.

The Heritage Foundation was the institute most directly involved in the drafting of the Telecommunications Act. This policy institute, created in 1973, is part of a group of new uncompromising conservative think tanks created "to provide the potential counterintelligentsia with opportunities to do its research, to write and to

27 See, for example, the quotation of the American Enterprise Institute director of public relations in Serge Halimi, "Les boites à idées de la droite américaine: Démanteler le New Deal, faire payer les pauvres", Le Monde Diplomatique, April 1995.
28 Interview with analyst at the Heritage Foundation, tape 2, Washington DC, February 27, 1997.
otherwise promote the conservative challenge to liberal assumptions and conclusions" (Ricci, 1993, p.154). They were considered to dominate the political scene. Founded with financial support from big businesses such as Coors, the Heritage Foundation later, through intense utilization of direct mail solicitation, developed a strong base of individual contributors. The Foundation's stated mission is to

formulate and promote conservative public policies based on the principles of free enterprise, limited government, individual freedom, traditional American values and a strong national defense ... by performing timely, accurate research on key policy issues and effectively marketing these findings to our primary audiences: members of Congress, key congressional staff members, policymakers in the executive branch, the nation's news media and the academic and policy communities.  

The emphasis on timely and usable research is very strong at the Foundation. It takes the form of "bulletins" and "backgrounders" which are short papers, thoroughly researched and footnoted, distributed to members of Congress and their staff during the crucial phases of the legislative process. To produce such timely advice, the Foundation does not operate on the academic model used by the AEI and the Brookings Institution. Instead of having independent experts working separately, Heritage's managers tell young staffers which policy area to study and write about, according to the topics emerging on the congressional agenda. The focus of the Foundation is really congressional politics and therefore, Members of Congress and their staff are their main audience. The materials prepared by the Foundation's

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29 By 1996, 52% of its 28.7 million dollars income came from individuals. See The Heritage Foundation, Annual Report, annual.
30 The Heritage Foundation, Annual Report, 1996. The emphasis of the Foundation is mostly on congressional politics. "It's important to note that in the think tank world .... there is a clearly defined division of labor. There are groups that look to do things in certain arenas and groups that do things in others. For example, Heritage is myopically focused on Capitol Hill. We can see the Dome of the Capitol right there, and that is what we look at. ... we try to dedicate our resource to when the bill is in Congress and we know it makes the most difference." Interview with analyst, tape 2, Washington D.C., March 1997.
analysts will most likely be related to a legislative proposal already in the House or the Senate or will compare a variety of proposals which are being considered for legislation.

The Foundation endeavored to modify the content of the Telecommunications Act, especially during the second part of the process, that is, after the election of the Republican majority. It also played a central role in influencing the proposal Senator Dole put forward in 1994. Members of this policy institute worked directly on drafting the text with Dole's staffers. The proposal became a starting point for S.652, even though it was greatly transformed through the negotiations among Republicans and Democrats.

In addition to directly working with some central political offices, the Heritage Foundation published a number of documents concerning the telecommunications bill. Even during the Democrat majority, the Foundation published an "Issue Bulletin" titled, A Guide to Telecommunications Deregulation Legislation, criticizing various aspects of Bill S.1822, such as the restrictions on RBOCs' entry into new markets and a broad definition of universal service. Throughout 1995, the Foundation distributed short briefing documents providing background information on telecommunications policy, summarizing the arguments of each major party and recommending changes to the bill under scrutiny: their suggestions mostly revolved around the idea of removing all restrictions or regulations on telecommunications companies. For instance, in May 1995, it published a "report card" on Bill S.652, evaluating each element of the bill in terms of free-market principles.

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31 A series of six Heritage Talking points: A policymaker's guide to deregulating telecommunications were issued between December 1994 to March 1995.
In addition to producing these documents and working directly with some leadership offices, employees of the Foundation met with Republicans members of Congress and some Democrats to influence the bill toward more "free-market principles." As the analyst from the Foundation explained:

One of the things that makes us so successful is that our job doesn't end when we write that paper or issue that op-ed ... We don't consider that the end of our job, we just don't bombard them with paper. What we do after that, we'll go over on Capitol hill and actually meet with every single member of that committee and sit down with every staffer and discuss what is wrong with the bill and what is right with it. And then, we'll take our efforts, we'll take our message and extend not only in that committee and that sub-committee and that whole committee; we'll go to the entire Congress-- as many offices as we can find who are interested and we'll talk to them. Of course not every office will be interested. That is what makes us so effective. It's our marketing and educational outreach, it's the fact that we're taking our product, and not only publishing from this organization and in respected newspapers, but we also it take right over to Capitol hill and put it in their hands and say: "Here's what we can do for you, let me tell you why I think something is wrong with this bill." That's what we did very actively right about this time, right at the beginning of the 104th Congress.32

The influence of the Heritage Foundation and other smaller conservative think tanks materialized in the first Republican draft of the bill. As one congressional staffer explains: “After 1994, the Republicans, at staff level, were very influenced by these policy institutes. The very first version of the bill in 1995 reflected the very deregulatory views of the staff and the influence of conservative policy institutes. However, some Republican elected officials did not support such deregulatory views, and even the ones who did, realized they needed the support of the Democrats to pass the bill.”33 Therefore, when S.652 was formally introduced, many provisions requested by the Democrats were included in the bill, including universal service.

33 Interview with ex-congressional staffer, Washington D.C., October 7, 1999, emphasis added. In the Senate, any Members can block the adoption of a legislation
The need to gain the support of Democrats and the reluctance of many Republicans to support complete deregulation were not the only reasons the bill moved away from conservative preferences. Lobbying from telecommunications companies, the long-distance companies in particular, against a very deregulatory approach influenced the decisions of the Members of Congress. "The date-certain approach would have been cold turkey deregulation. AT&T and the long-distance companies said: over our cold dead bodies ... They mounted the most impressive, elaborate, expensive campaign to stop that, and it worked."34

During 1995, a coalition was formed to react against what they viewed as the increasingly regulatory nature of the telecommunications bill. This group included experts from major policy institutes such as Gregory Sidak from the American Enterprise Institute, Adam Thierer from the Heritage Foundation and Robert Crandall from the Brookings Institution. In May 1995, an 88-page booklet was published by The Progress and Freedom Foundation, a recent conservative think tank closely linked to the House Speaker, the Republican Newt Gingrich (Keyworth, George, et al., 1999).35 The document proposed an alternative way to manage the industry with a much smaller government role. The so-called "replacement model" called for the abolition of the FCC and for the repeal of the majority of regulations in telecommunications and broadcasting. Based on the declarations of the authors, these propositions can be considered an attempt to influence the general discourse on

by using filibustering. Only a majority of 60 out of 100 can overcome a filibuster. The Republicans had only 55 seats in the Senate.

34 Interview with policy institute analyst, Washington, D.C., October 1, 1999.
35 Working group who assisted with the report:
Robert Crandall, the Brookings Institution; James Gattuso, Citizens for a Sound Economy; Dr. Thomas Hazlett, U.C. Davis; Peter Huber, The Manhattan Institute; Peter Pitsch, the Hudson Institute; Gregory Sidak, AEI; and Adam Thierer, the Heritage Foundation.
telecommunications regulation rather than the specifics of S.652. "The author of the report said they don't expect their ideas to be incorporated into pending telecommunications reform this year but expect their plans could affect future legislation." 36

Despite their sustained efforts, the conservative policy institutes such as the Heritage Foundation did not succeed in influencing the legislative process as much as the efforts of the Democrats to modify S.652 to their liking. The election of 1994 allowed the new Republican majority to set the basis for the redrafting of the legislation. At this point, the Heritage Foundation became influential and directly participated in the policy process. However, from its point of view, the final result was quite "diluted," as more and more regulatory provisions were added to the bill.

The influence of other policy institutes was centered around the production and diffusion of the economic perspective on telecommunications policy. Two major Washington-based institutes, the Brookings Institution and the American Enterprise Institute (AEI) were important relay agents by linking academic economics to the policy area, as they did in the earlier debates about deregulation (Derthick and Quirck, 1985). The AEI is a more moderate and less dogmatic conservative think tank with a budget almost half that of the Heritage Foundation (15.2 millions dollars in 1997, 70% percent coming from corporations and foundations). Its creation dates back to the 1940s, but until the 1970s, it was a right-of-center institute with modest ambitions. In the 1970s, the Institute "grew rapidly in influence, challenging the Brookings Institution for the title of Washington's leading think tank. When Ronald Reagan became President, a number of AEI associates took up important posts within the administration" (Peschek, 1987, p.27). The diffusion of the research produced by AEI does not include the regular "lobbying" of members of Congress adopted by the

Heritage Foundation. Traditional channels such as the publication of monographs and magazines, the organization of conferences, forums of discussion and seminars, and the publication of AEI researchers in journals and newspapers constitute the core of the "outreach program" of the institute.

The AEI was quite active in promoting the pro-competition paradigm in telecommunications policy. Its involvement took many forms. First, in the 1990s, the AEI published a series of "Studies in telecommunications deregulation" which prescribed liberalization as well as means to ensure competition (Baumol and Sidak, 1994; Johnson, 1994; MacAvoy, 1996; Sappington and Weisman, 1996; Mueller, 1996, Vogelsang and Mitchell, 1997). Although some publications came after the adoption of the Telecommunications Act, they were widely circulated among the policy community before their publication. Indeed, "each volume of the Telecommunications Deregulation Project has been discussed and criticized in draft form at an AEI seminar involving federal and state regulators, jurists, business executives, professionals and academic experts" (Vogelsang and Mitchell, 1997, p.xii). These roundtable discussions were held approximately a year before publication. In addition to these seminars, the AEI held two conferences where "senior industry executives, scholars, and government regulators discussed the need for regulatory reform."37 These meetings are another route to transmit policy ideas about competition in telecommunications.

- February 25, 1994, "Telecommunications: Regulation under rapid Technical change,"participants to the roundtable: Robert Crandall from the Brookings Institution and Gregory Sidak from AEI.
- January 21,1994, "The Restructuring of the Telecommunications Industry", participant to the roundtable: Gregory Sidak from AEI.
Another means of diffusion is publication in the press. For example, in 1994, the AEI resident scholar specializing in telecommunications, Gregory Sidak, published an article in the institute bimonthly magazine, The American Enterprise, which recommended to "promote competition by eliminating regulatory barriers to entry into the market" (Sidak, 1994b, p.48). This lawyer with training in economics also gave interviews to promote his policy options and is very often quoted in the mass media and trade journals. The American Enterprise Institute also published a bimonthly magazine entirely devoted to regulatory policies. The journal Regulation published many articles on telecommunications policy from experts mentioned earlier. These articles mostly start from the premise that regulation is almost always too costly and ineffective. Therefore, they advocate liberalization and deregulation of the sector. For example, Robert Crandall (1992) proposed liberalization and deregulation as a solution to the danger of cross-subsidization by the RBOCs.

The last major policy institute involved in telecommunications policy is the Brookings Institution. This institute is the oldest one, its creation dating back to 1927. In the 1950s and 1960s, it established itself as the major private research group on domestic policy. In the post-war period, it has been identified as a "liberal think tank" as it was increasingly associated with Democrats. Their proposals were nevertheless "middle-of-the-road policy recommendations backed by substantial corporate funding and derived from theories expounded by many academic social scientists" (Ricci, 1993, p.153). This moderately liberal stance was challenged in the 1970s and later by the new conservative think-tanks. New issues such as regulation were examined, "perhaps a reaction to changes in the political agenda brought about by the right" (Pescheck, 1995).

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38 See Crandall, 1988, 1992; Gilder, 1993; Noam, 1993; Huber, 1993; Gasman, 1995. From 1990, the AEI handed the management of Regulation to another conservative institute, the Cato Institute. Actually, this think tank could be labeled libertarian, given their opposition to any type of government intervention (Ricci, 1993).
The activities of the Brookings Institution are similar to those of the American Enterprise Institute: research, publications (monographs or articles in journals and magazines), organization of conferences and seminars, as well as regular appearances in Congress and other forums as expert witnesses. In addition to its economic, government and foreign policy studies divisions, the Institute includes the Center for Public Policy Education. This "adult education" for executives, government officials and members of Congress offers seminars, conferences, symposia and briefings to inform them about current policy issues. In 1997, more than 7,000 executives and decisionmakers were involved in the Center for Public Policy Education.39

The Brookings was less active in telecommunications policy than were the AEI or the Heritage Foundation. Nevertheless, the prolific Brookings' economist Robert Crandall published many books, and scholarly and popular articles advocating more competition in telecommunications.40 The Brookings Review, the institute's magazine, regularly published articles in which he called for deregulation and liberalization of telecommunications (common carriers and cable) (Crandall, 1992, 1994, 1996). For example, during the examination of Bill S.652 in Congress, he argued that "if the Republican majority in Congress truly believes that markets are superior to government controls in allocating resources, they could surely go much farther in dismantling telecommunications regulation than they are prepared to now" (Crandall, 1996, p.29). Crandall is also regularly quoted in the media and invited to conferences and congressional committees to present his ideas.

The Heritage Foundation, the AEI, and to a lesser extent, the Brookings Institution were central in diffusing the competition paradigm in the political sphere

39 Source: Brookings Institution Homepage: www.brook.edu/ccpe
during the late 1980s and the 1990s. However, these organizations are not the only forums where the neo-liberal economic ideas about telecommunications policy were diffused. For example, some annual conferences such as the Telecommunications Policy Research Conference or the Aspen Institute Conference on Telecommunications Policy are held where academics, industry representatives, regulators and legislators meet to discuss telecommunications policy. Competition and deregulation are only one topic among a variety of subjects discussed at these conferences, but these are nevertheless important forums. One can propose that they play a role similar to the NTIA or the CEA, that is, a role of reinforcement of the consensus about judicious policy for telecommunications.

6.4 Experts in the industry

Historically, the relationship between the telecommunications industry and the production of formal knowledge on telecommunications policy has been almost symbiotic. Until the break-up of the Bell system, AT&T and the Bell Labs were the main producers of economic knowledge on telecommunications. Indeed, Bell Labs recruited many economists to work at its economic department. AT&T also hired three high-level economists to advise the firm: William Baumol from Princeton University, Otto Eckstein from Harvard University, and Alfred Kahn from Cornell University; Kahn was later replaced by Paul MacAvoy from Yale University (Allen, 1992). It also funded the Bell Journal of Economics which published important articles on regulation. The strong involvement of AT&T in the production of economic knowledge influenced the availability and the type of economic expertise in the political arena. As Nina Cornell, an economic consultant previously at the FCC, argues:
In all the years of AT&T economic research, certain questions got asked and certain questions didn't get asked. I believe that AT&T's academic authorities purposely stayed away from touchy studies of the corporation's "predatory" behavior in its competitive markets, and that courts and rate-setting bodies rarely heard balanced presentations because AT&T cornered the market for experts. Even now [in 1983], the AT&T competitors are just beginning to scratch up some money to pay someone to come up with data to contest AT&T.41

Despite the earlier dominance of AT&T in the "expertise market," competitors and user groups were increasingly able to find alternative experts. Indeed, the telecommunications industry made great use of economic expertise during the policy process which led to the Telecommunications Act, as well as in its relationship with the regulators and the courts. Members of Congress received many expert opinions and consultants' reports sponsored either by the Bell companies or by the competitive side of the industry, such as AT&T, MCI, and Sprint.

In addition to the public service and policy institutes, economic reports produced by consultants are the third means of diffusion for formal knowledge to reach policy makers. As a congressional staffer explained:

Dale Hatfield from Colorado, Lee Selwyn from Economics and Technology, these [people] are not scholars all the time. They can be consulting firms. That's often how the scholarly work get presented to us, it's through consulting firms. A lot of the work is done for hire by one side or the other. So, the industry will often bring to our attention various reports and studies that have been done. So, that another way that we get to see these things.42

As I pointed out in the previous chapter, industry representatives regularly referred to studies or reports, mostly based on economic expertise, to support their point of view during the congressional hearings. The use of expertise by the industry

during policy debates presented the same traits as the use of expertise in scientific controversies. "Technical expertise is a crucial political resource in all policy conflicts; for access to knowledge and the resulting ability to question the data used to legitimize decisions are an essential basis of power and influence" (Nelkin, 1995, p.452). The companies involved in the policy process leading to the adoption of the Telecommunications Act of 1996 were using the cognitive authority of economic expertise to support and promote their positions in the debate.

However, the involvement of economic experts in such debates can undermine their cognitive authority. Indeed, experts' willingness to allow a group to use their expertise as a political resource can erode the boundary-work based on the neutrality and objectivity of expertise. The statement of one of the staffers interviewed for the research project confirms this scenario.

On a piece of legislation like the Telecom Act where massive amounts of money is being spent by different parties, they [the industry] would spend money bringing experts-- various types of experts-- to write advocacy pieces, distributed in hearings or to members. There was no shortage of information. There was an excess of information. I think at some point on a legislation that is hotly debated, the members and the staff begin to treat it all with great skepticism. It is just another advocacy, whether or not it's advocacy or legitimate research. I think members and staffers have very difficult a time distinguishing between good and bad research. 43

The cognitive authority of experts and its value for business as a legitimation tool is recognized as a double-edge sword. A 1978 management book written to provide advice to regulated firms on how to play the "regulation game" provides us with a vivid illustration of this understanding of the relationship between expertise and business.

Regulatory policy is increasingly made with the participation of experts, especially academics. A regulated firm or industry should be prepared whenever possible to co-opt these experts. This is most effectively done by identifying the leading experts in each field and hiring them as consultants or advisors, or giving them research grants and the like. This activity requires a modicum of finesse; it must not be too blatant, for the experts themselves must not recognize that they have lost their objectivity and freedom of action. (Owen and Brautigan, 1978).

It is also important to observe that the industry also made an extensive use of academic economic expertise as well as consultants to support their legal battles. For example, when the Bell companies initiated a legal action to vacate the MFJ in 1994, their application included 47 affidavits from economists discussing the removal of the line-of-business restrictions. Each affidavit strongly stresses the education, the present and past positions, and publication credentials of the economists. Of the 29 economists whose contributions were published in Higgins and Rubin (1995), only one did not hold a Ph.D in economics. Most of them (20) are professors in economics, some in business schools; the rest are senior economists at consulting firms. In order to establish the credibility and the authority of the experts, the short résumés stress the research experiences of these witnesses and that they have "published extensively."45

44 More than half of these affidavits were published in Higgins and Rubin, 1995. 45 Here some examples of experts' credentials are established:

"Kenneth Arrow is the Joan Kennedy Professor of Economics Emeritus at Stanford University. He received its BS in Social Sciences for the City College of NY, a MA in Mathematics from Columbia U. and a Ph.D in Economics from Columbia. He taught economics at the U. of Chicago, Harvard U. and Stanford U., and has written more than 200 books and articles in economics and operations research. He is a recipient of numerous awards and honorary degrees, including the Nobel Memorial Prize in Economic Sciences (1972). His research and writing have been in the areas of competition and monopoly, the economics of information and social choice. Professor Arrow frequently consults with Lexecon Inc."

"Robert Hunter, vice-president of Charles River Associates, works in the arena of industrial organization and economics of anti-trust and regulation. He received a Ph.D in economics from the U. of Wisconsin in 1968. He has taught at Brandeis U. and Boston College. In addition, he served as Chief of the Industry Analysis Division in the Bureau of Economics of the Federal Trade Commission. Dr. Larner is the author
Whether it is in courts or on the political scene, business mostly uses expertise to buttress its argumentation and to defend its interest. Formal knowledge becomes a tool for lobbying, for convincing policymakers of the benefits of their propositions. Nevertheless, by resorting to experts, the telecommunications industry further introduced the new economics of telecommunications into the political arena. This route of diffusion is especially important in terms of exposing congressional policymakers to this body of knowledge. Materials from consultants and industry experts are directly presented to the members of Congress and their staffs. As with the policy institute, the expertise provided by the industry is a more explicit route of diffusion than the entry of economists into the civil service. Still, these more explicit means of diffusion did not result in a direct impact on the specifics of the making of the Telecommunications Act, but on the "climate of ideas" within which this piece of legislation was elaborated.

6.5 Conclusions

This chapter discussed the indirect influence of expertise on policymaking and the routes this influence can take. Academic economists proposed new views on telecommunications policy. Notably, only one type of economics came to be considered legitimate knowledge on the topic: neo-classical micro-economics. The hierarchical structure of the unit of production of formal knowledge, the economics discipline, prevented dissenting views from being put forward in the political sphere. Economists endorsing the neo-classical views are the ones heard and whose ideas are
transmitted to the political arena. According to these economists, all segments of the telecommunications services market could be open to competition. This is where the new policy paradigm gained the most adherents in the political arena. Indeed, the liberalization of the telecommunications industry, as an analytically distinct policy option from deregulation, became a non-controversial issue. “Everybody agreed on competition. Nobody, I can’t remember a single person during the debate coming forward and saying: competition is a bad thing. We are all believers in competition now.”

Economic experts also stressed the importance of pricing services based on their costs and, therefore, recommended restructuring pricing. The over-pricing of long-distance services to subsidize local service was denounced as inefficient and something to be eliminated along with most regulatory measures. However, academic suggestions were not directly transmitted to policymakers. Even though some academic economists participated in congressional debates, their recommendations were not directly translated into policy. Their influence took a more indirect route. First, through entry into the public service, economists imported professional norms and disciplinary knowledge and views about regulation which were favorable to competition and deregulation. Moreover, the active role of conservative policy institutes in the telecommunications policymaking process, and the production and the dissemination of economic knowledge on telecommunications by these institutes, remolded the public discourse. Finally, consultants hired by the industry, be they

46 Interview with policy analyst, March 2, 1997, Washington, D.C. He added that: “Of course, everybody had a different definition of what competition was and how we get there. There were those who believed, pushed hard by the Baby Bells, that if you simply open the legal barriers to competition, people would come in and start competing. And there were others that believed like Fritz Hollings and Jack Brooks and others, in the long-distance industry that said: Listen, just because you eliminated the laws, doesn’t mean you’re eliminating the uncompetitive advantages that local telephone companies have.”
academics or not, also presented the policymakers with the same materials. The new economics of telecommunications regulation was diffused through these three main routes and, henceforth, reshaped the bases for state intervention in that sector.

Despite the influence of economic expertise on the public discourse on telecommunications policy, there was still strong resistance in the political arena to adopt policies which are fully compliant with the neo-liberal credo. As discussed earlier, the Telecommunications Act only matches neo-liberal economic views inasmuch as it opens segments of the industry to competition, but it does not eliminate regulations from the sector. On the contrary, it extends the role of the regulator to ensure interconnection, prevent anticompetitive behavior, ensure universal service and so on. One congressional staffer explains the gap between experts and policymakers in these terms: “Experts in policy institutes are very deregulatory. From my point of view, they are out of touch with the political reality, they are too ideological. There are not many progressive experts in Washington or experts who understand the political necessity or the need to have regulation to make sure the Bells do not block competition.”

A senior official at the DOJ confirmed that a gap existed between policymakers and experts, as experts fail to see what they view as common knowledge: “universal service made the network possible, it achieved its social and political objectives of linking everybody. It unifies the country, it is an important social policy.”

The gap between experts and policymakers is especially obvious when the politicians are Democrats. Furthermore, we have discussed earlier the political gap between Democrats and Republicans regarding the issue of regulation. For instance,

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48 Interview with ex-senior official from DOJ, December 7, 1999, Washington, D.C.
the Democratic Senator from Vermont, Senator Leahy, expressed his opposition to the
deregulatory discourse during the Judiciary committee hearings in 1995:

Senator Leahy: We hear the mantra of deregulation in Washington, but we also
know that in a complex society like ours, there is always going to be some
regulation. Otherwise, it is not going to work.... But, if regulation is done
right, whether it is at the State level, local level or Federal level, it is supposed
to protect all of us, consumers and business, and it might stop harm from
happening.49

However, the disagreement between experts and policymakers on telecommunications
policy is not limited to Democrats. The distance between economic experts and
policymakers is also illustrated by the disagreement on the issue of universal service
discussed in the previous chapter. The resistance of policymakers to the prescriptions
of neo-liberal economics attests that their influence over the policy discourse, however
strong, is not complete.

49 Antitrust Issues in telecommunications legislation, Senate Subcommittee on
antitrust, business rights and competition, Committee on the judiciary, May 3, 1995,
p.95.
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Chapter 7: Experts in the Political Arena: The Road to Recognition

The previous chapter focused on the influence of experts in the political arena. The study of the paths of diffusion of expert advice revealed that experts’ knowledge can transform the basic assumptions that are the premises for the debate and the parameters of public discourse in a given policy sector. The question to be addressed more directly now is why some groups are recognized as legitimate advice providers.

I earlier observed that, although there are no formal criteria to decide who is an expert, some rules guide the choice of expert witnesses in congressional hearings on telecommunications policy: formal credentials in economics or law, relevant publications and, more importantly, experience in relevant federal bureaucracies (FCC, NTIA, Antitrust Division). To understand who is an expert in the eyes of policymakers, other factors must be considered. I raised the need for symbolic support of policy and how the selection of experts presenting slightly divergent views legitimatizes the policy process itself. These observations were directed at the experts who were directly involved in the "nitty-gritty" of the elaboration of the telecommunications law. I now take a more general view of the experts and the process of recognition. Experts in governments or policy institutes who were not directly involved in policymaking can have more influence by molding the basis and the parameters of the policy choices in a sector. But the question again: how do they establish themselves as advisers? Why is their knowledge validated in the political arena? This chapter examines these questions by first exploring the competition between groups of experts for recognition by policymakers. Second, expertise is considered in its political environment; the relationship between knowledge and political discourse is the focus of this discussion.
7.1 Competition among experts

The competition among experts in the political arena is about gaining and/or maintaining cognitive authority over a jurisdiction. In other words, groups of experts seek to be recognized by policymakers as the legitimate providers of advice in a policy area: physicists in nuclear technology policy, political scientists in constitutional policy, physicians in public health policy. However, jurisdictional claims from experts overlap; two or more groups can claim to offer the relevant and appropriate formal knowledge on which policymakers should base their decisions. When a group convinces political authorities of the value of its advice, it becomes sanctioned as the legitimate advice provider. What are the tools and the assets available to experts to gain or maintain cognitive authority over a policy area?

In order to establish its jurisdiction over a policy sector, a group of experts can first rely on its occupational prestige. Indeed, a group's professional status can strongly influence its recognition in the political arena. The prestige and professional status of a group is determined by historical experiences and national context, and it therefore varies from sector to sector, from country to country. Sociologists have studied the elements which compose the process of professionalization. The existence of a highly selective entry process into the profession, the establishment of a credential system, the appropriation and codification of a stock of knowledge which is transmitted to newcomers through formal training, and the establishment of a monopoly over a certain set of tasks or positions are the main elements by which a group can establish its professional status. Such status confers material advantages to the members of the group in the workplace but also confers greater prestige and legitimacy to the groups in the political arena.

For example, the credentialing system can provide a minimum base for recognition by policymakers. A group of experts must have established a credential
system so that one can distinguish who are really the legitimate experts. Methods of credentialing are diverse and include licences, diplomas, accreditation and so forth. In the United States, credentialing is greatly dependent on the university system. Indeed, the university is the core institution: it provides a living for producers of formal knowledge who then standardize and diffuse it to students. The university has become the institution where scientific knowledge is produced and, therefore, it created a clear demarcation from "amateur knowledge" in order to secure the legitimacy of science (Wittrock and Wagner, 1996). The credential system is a minimal condition a group and its members must meet to be able to compete with the other experts. To be recognized as an expert in the political arena or in the labor market, one must have received the proper university education.

In contrast to the United States, the professional status of experts in continental Europe is more linked to the State. "While the British and American professions sought to maintain their autonomy and to achieve exclusive licences to provide their services, similar groups in Central Europe were either incorporated into the State bureaucracy or had to trade some of their autonomy for recognition from the State and the increased social prestige that accompanied such recognition" (Ziegler, 1995, p.349).

Apart from professional status, there is a second strategy knowledge-based groups can use to delimit their cognitive territory: boundary-work. Past and present boundary-work lay the groundwork for a group's claim of jurisdiction. Boundaries are erected around a policy sector to protect it from jurisdictional claims from rival groups. Such boundaries can highlight various features of a group; whether in its values, its methods, the type of knowledge it uses and produces, or the character of its members, the goal is to stress the superior quality of the group vis-à-vis its competitors and to base a jurisdictional claim on such superiority.
7.1.1 Economists and lawyers: professional status

The competition to be recognized as the legitimate expertise on telecommunications policies in the United States is dominated by the discipline of economics. Economics is recognized as the most appropriate and significant knowledge to be used by policymakers in their devising of sound telecommunications policies. However, economists do not completely monopolize the provision of expertise. Another group of experts is competing for such a role: lawyers. Legal expertise has been and is still now significantly involved in telecommunications policymaking. Staffing practices still show high numbers of lawyers in the relevant agencies. Many lawyers participated in congressional hearings as experts in my case study. Nevertheless, they became subordinated to economic expertise.

Indeed, I observed a shift in the locus of cognitive authority preceding the shift from the monopoly to the pro-competition policy paradigm. Economics became increasingly dominant, more specifically the neo-liberal economists. The rise of economists is not only discernible through the increase of economists working within the governmental agencies or the selection of economists as expert witnesses during hearings, but also through the adoption by other experts and policymakers of the language, the broad ideas and, later, the policy options proposed by economists concerning the regulation of telecommunications.

Lawyers are prominent in the policy community concerned with telecommunications. Whether it is at the FCC or at the Antitrust Division, they hold numerous positions at all levels of the hierarchical ladder. Nevertheless, they do not represent a serious challenge to the dominance of economic expertise. Indeed, many of them adopted the economic view on telecommunications regulation. They agree
with the liberalization of telecommunications services market and the adoption of an "efficient" pricing system. They will often rely on economic knowledge to support their policy arguments. As one government lawyer stated: "I have a sense that today lawyers understand that to make an effective argument, it's useful to have significant economic underpinnings."¹

To understand the competition between economists and lawyers, I examined the professional status and the resort to boundary-work of these two groups. The next section will present how professional status appears to be a necessary condition for recognition. All economists and lawyers involved as experts in the policy process had the correct credentials such as the proper university education or a licence to practice. However, professional status is not sufficient to understand the dominance of economists. Indeed, one would expect lawyers to have an advantage over economists given the high level of professionalization achieved by the former.

Lawyers have been able to secure and monopolize labor markets in many areas. Indeed, the legal profession in the United States exhibits most of the features identified in the literature on professionalization: limited access to specific training, strict certification and, therefore, a very strong formal credential system. Professional and prestige status are also linked to the institutional location and the relationship to the State. Indeed, experts who gain positions within the government, or at least have access to policymaking centers, possess a great advantage over their competitors for two reasons. First, it allows a group to be directly involved in the policy process and have frequent and open access to the policymakers. Moreover, it grants legitimacy to the knowledge-bearing groups occupying these governmental positions. By hiring certain professionals, the State recognizes the pertinence and usefulness of their

¹ Interview with civil servant, tape 1, Washington D.C., February 26, 1997.
expertise. Lawyers have been very successful at securing positions in policymaking centers. They can be found in almost every administrative office and department, at every level of the bureaucratic hierarchy. They are also very present in congressional staffs.

They are unique among the professionals in government because their official presence as lawyers, in virtually every agency, is a kind of final filter for major proposal and transactions. Few agencies have a military attaché or a medical office or a chaplain or environmentalist with that function, and that omnipresent budget and information officer does not make much policy, but most agencies have a chief counsel or general counsel (Wollan, 1978, p.106, quoted in Freidson, 1986, p.193-194).

As for access to policymaking centers in telecommunications, lawyers have been in a predominant position for a long period. They secured positions in every segment of the bureaucracy: they dominated qualitatively and still now, quantitatively, at the FCC and the Antitrust Division. From their omnipresence in the administrative apparatus, lawyers derived access and professional prestige on which their authority as policy experts could be based.

On the other hand, economists never succeeded in reaching a complete professional status (Coats, 1991), as defined by the sociology of professions. There is no formal accreditation system. To be recognized as an economist by employers or by policymakers does not require a licence granted by a governmental agency or a certification given by a professional association (as is the case for most health-related professions). The control over entry is rather loose. Even though a graduate degree in economics is becoming increasingly the norm, "there is still no clear occupational discrimination in the non-academic world between a) those with advanced as well as undergraduate degrees, b) those with joint or mixed rather than honours degrees c) those in higher management or civil positions with no formal training whatsoever in economics" (Coats, 1993, p.399).
Despite these weaknesses, economics displays many features related to professionalization. First, it developed a core body of knowledge shared by all economists. This standardization is especially strong in the United States but is present everywhere; it took place through "the widespread dissemination of relatively standardized textbooks, the growth and homogenizing tendencies in advanced graduate training, the worldwide readership of the leading professional journals [and], the increasing mathematization and quantification of the discipline, which has helped to overcome language barriers" (Colander and Coats, 1989, p.113). In this context, neo-classical economics became the dominant paradigm within which future economists are trained. It has been proposed that this holds especially true in the United States where formal knowledge in economics is very theoretical, abstract, and general in character. In contrast, European economics is more institution-specific and specialized. The small and nationally fragmentated European markets for economic knowledge would explain this difference (Frey and Eichenberger, 1992).

A standardized cognitive base and an institutionalized training are not the only resources American economists can rely on. The economics profession has also been able to obtain governmental positions. The most prestigious ones at the Council of Economic Advisers endow the discipline of economics with official recognition of the value of its knowledge and its policy recommendations. Economists have long secured positions in departments such as commerce, finance or budget. In the last decades, they have been able to expand into new departments and organizations and at every level of the decisionmaking ladder. I mentioned earlier the introduction of economic analysis into regulatory agencies. In telecommunications policymaking, economists are now posted in every important governmental agency or department. There are chief economists playing a policy role equivalent to a chief counsel. Economists are still
relatively poorly represented in the legislative branch but can be found at every level of the executive branch and at the FCC.

Before the 1960s, economists in regulatory agencies mostly handled technical tasks. Afterward, they were increasingly hired for decisionmaking positions. Their selection for these positions not only reflected the recognition by policymakers that their knowledge could be put to use for policy recommendations, but it also increased their professional status and their potential influence over policymaking. This holds true not only for the senior positions of the bureaucratic apparatus. Indeed, decisionmaking positions are not limited to one or two top posts within an organization. As Coats and Colander (1989) comment about economists:

Far more attention has been directed at the more glamorous activities of top level economic advisers such as the President's CEA, heads of government departments or senior officials in international agencies. Yet, between these exalted characters and the routine toilers are several layers of intermediaries who also deserve some consideration, for they include many essential receivers and purveyors of economic ideas and utilizers of economic skills. Policy is not simply formulated at the top of the office or at Cabinet level. Much originates way down within the bureaucratic system and is modified, refined and reshaped repeatedly as it moves up to the highest decision-making levels (Coats and Colander, 1989, p.111).

Professional status is important for groups of experts to be regarded as legitimate experts. Credentialing from universities and licences are only the basic requirements, the first step to establishing cognitive authority in the political arena. The acquisition of positions within the State bureaucracy is the second step. These positions grant influence over policymaking and prestige. This also applies to individuals within knowledge-bearing groups. In addition to the basic requirement of university diplomas and licences, economists and lawyers testifying in courts for the telecommunications companies or in congressional hearings stressed their previous
academic and/or governmental positions, relevant publications, research experience, and so forth. Their cognitive authority relies on these elements.

However, professional status and prestige does not appear to be sufficient to explain the domination of economists over lawyers in the recent telecommunications policy change. Even though economists' professional status has improved in the last decades, lawyers are still more present than economists within the "centers of power." On this sole factor, one should therefore expect the domination of legal expertise. I thus turn to a second element to shed light on the recognition of economics as the most relevant body of formal knowledge to advise policymakers on telecommunications matters.

7.1.2 Economists and lawyers: Boundary-work

The second parameter in the competition among experts is the resort to boundary-work. Regarding the competition between economists and lawyers for recognition as telecommunications policy advisers, it could be proposed that reference to methods and values that are considered superior gives the competitive advantage to economists over lawyers. Legal expertise differs from economic expertise by its methodology and professional norms. Legal knowledge is reached through the qualitative examination of legal cases and the search for general principles which can guide specific decisions. "In so far as the law has a theory that informs its empirical work, that mainstream legal theory continues to be the philosophy of law, whose technical foundation is the analysis of language" (Cooter, 1988, p.8).

On the other hand, economics mostly relies on quantitative analysis of phenomenon to develop its theories. These theories will most of the time be
formalized into equations. Economists' reliance on formalization and quantitative procedures is a powerful tool for boundary-work (Whitley, 1987; Church, 1974).

The neoclassical theory provided an esoteric language and framework which had to be acquired through formal education and could apparently be directly applied to a wide range of issues. Economists could thus claim unique access to a specialist field of knowledge that was capable of generating practical advice through increasingly elaborate quantitative procedures. ... this theory provided the basis for professional identities and research practices that both separated economists from competing scientific groups and the laity and yet enabled them to control the definition, and to a certain extent the evaluation, of an expertise that was useful for pressing problems (Whitley, 1987, p.197).

The quantitative and formalized knowledge of microeconomics is a powerful asset for economists' jurisdictional claim over a range of policy areas. Indeed, "formalization, the elaboration of knowledge at several levels of abstraction, strengthens jurisdiction" (Abbott, 1988, p.103). However, too great a level of abstraction will diminish the cognitive authority of a group of experts: the formal model may appear to be disconnected from reality and have little practical application. Economists working on telecommunications appear to have developed an optimal level of abstraction where the general principles of microeconomics can be applied to the sector. Formalization and the use of quantitative methods could allow economists to operate boundary-work where the rigor and the objectivity of their activity can be contrasted with the "outmoded" legal thinking based on tracing the development of a concept such as public interest or a vision in the jurisprudence.

Contrary to what the literature suggests, no boundary-work based on claims of superior methodology was found during my examination of the corpus. Boundary-work, according to Gieryn, should appear in experts' representation of their own work and in public statements about their expertise. Therefore, one would expect to find episodes of boundary-work during public hearings in Congress when experts are invited to provide expertise to policy-makers, especially during a policy
Indeed, a policy paradigm shift is a more propitious moment to witness the explicit use of rhetoric by a group of experts trying to delimit the cognitive territory over which their knowledge is considered the most appropriate. Nevertheless, the testimonies presented by experts in congressional committees did not show recourse to such strategy. Similarly, academic economists did not attempt to highlight the superior quality of their method, in contrast to the legal methodology, in their publications.

It is possible that boundary-work based on claims of superior methodology appears more frequently at a much more general level, not in a specific jurisdictional battle over a particular policy area such as telecommunications. Over the last two decades, one can see that the economics discipline has been enlarging its cognitive territory into new policy and academic fields. Gieryn (1994) underlined that boundary-work can be adopted for different purposes such as monopolization, expulsion, protection or expansion. Expansion is a strategy one can witness in the case of economics. Economics has been successful in the last decades in expanding its jurisdiction to almost every realm of social interactions, hence encroaching upon the territory of other social sciences. For instance, as we discussed earlier, the application of economics to law is now a well developed literature (Cooter, 1982; Posner, 1987; Goodhart, 1997). In order to "push out the frontiers of their cultural authority into spaces already claimed by others," economists need to justify their claim to expertise. In a brief examination of documents discussing the "imperialism of economics," some boundary-work appeared. In a article in The American Economic Review celebrating the anniversary of the American Economics Association, the claim was made that "what gives economics its imperialist invasive power is that our analytical categories, scarcity, costs, preferences, opportunities, are truly universal in applicability" (Hirshleifer, 1985). Such arguments were made in a roundtable discussion among
prominent proponents of the application of economics to law. Similarly, in an essay on the expansion of economics, the economist Ronald Coase proposed that the "ability of a certain group to handle certain techniques of analysis or an approach may give them such advantages that they are able to move successfully into another field or even dominate it" (Coase, 1994, p.38). A detailed study of the jurisdictional expansion of economists into various cognitive domains lies outside the scope of this research. Nevertheless, the hypothesis that boundary-work based on method operates at a much more general jurisdictional level would be worth exploring.

The explicit articulation of the attributes of economic science in terms of methods was not found. However, boundary-work based on the core value in the discipline of economics attributed to economic efficiency was found in many instances. The value of efficiency underlying economic expertise has been shown to be a strong legitimization for these experts. Generally speaking, legal expertise legitimates itself based on values such as justice or references to the common law. However, efficiency has replaced many values such as tradition, personal character or general education as the legitimization of many professions (Abbott, 1988, p.184-195). Efficiency is a basic principle of the economic discipline and in my case study, economic experts on telecommunications often referred to it to explain and justify policy choices. At its most general level, efficiency is defined as the utilization of all available resources to produce the maximum amount of output possible. The more specific notion of an efficient allocation of resources is based on the concept of "Pareto optimality."

A Pareto optimal allocation is one in which we cannot reallocate resources to improve one person's welfare without impairing at least one other person's welfare. [However, ] if the initial allocation [of resources] is inefficient, the achievement of economic efficiency does not require that no one be made

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worse off before a change can be recommended. Economic efficiency requires only that recommended changes use resources in such a way that it would be theoretically possible, assuming costless transfers of income among gainers and losers, to make some better off and no one worse off. Suppose that most people would gain from some change, but some would lose. If the gainers gain enough so that they could fully compensate the losers with money or goods and still have an improved situation themselves, the change meets what some economists call the "potential Pareto" and would improve economic efficiency (Rhoads, 1985, p.63).

The total gain resulting from the new allocation of resources is what economists are basing their policy advice upon. Economists argue that, in telecommunications services, the very large benefits heavy users of long-distance services gained from liberalization and cost-based pricing more than fully compensated for the loss borne by the residential customers who rarely use long-distance services.

In regulatory policies, and in telecommunications policy in particular, economists base their claim to expertise on efficiency as a superior criterion for policy decisions. Economists assert that the knowledge they will provide to policymakers will promote the general welfare, thanks to an efficient allocation of resources. On that premise, economists can expand their jurisdiction over telecommunications regulation as well as other sectors of activities. Economic efficiency is used as a legitimizing value for economists' policy advice in telecommunications policy. The boundary-work performed by economists consists in arguing that the actors who propose advice not based on the criteria of economic efficiency should not make a claim to expertise.  

In the publications by economists, especially the ones aimed at a larger public, they frequently referred to efficiency as a higher value to legitimize their authority over telecommunications policy. In Chapter Three I quoted economists Robert Crandall

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3 In an example of such boundary-work, Wenders (1987) refers to "pseudoeconomics" to describe arguments which support regulation in telecommunications (see p.iX and p.151, p.171).
and Alfred Kahn as referring in congressional hearings to efficiency as the core criterion to evaluate policy alternatives. I provide in Annex 2 examples of such references in academic economics literature. The economists' policy recommendation of greater competition in the telecommunications services industry is supported by the criterion of economic efficiency. As Wenders' textbook states, "economists favor competition for a good reason: As a general rule it furthers economic efficiency" (Wenders, 1987, p.202). The end of monopoly in the provision of telecommunications services is a policy option supported by economists because they consider it will bring a more efficient allocation of resources. By the same principle, they recommend pricing policy where the prices of telecommunications services reflect more closely the cost of the services. The low prices of local access and phone calls create an over-consumption of this service whereas long-distance services are not used as much as the consumer would like, because they are over-priced.

Many economists recognize that many public policies do not have economic efficiency as their primary goal. There are other objectives such as income distribution, equity, fairness, or justice. These objectives can actually conflict with efficiency. For instance, legal expertise has questioned the very nature of the principle of economic efficiency, asking whether "a change that benefits one group but neither harms nor benefits another may not reasonably be considered objectionable and grossly unfair for the latter" (Baumol and Sidak, 1994a, p.24). In telecommunications, the policy goals of universal service and just and reasonable rates are often considered in contradiction with economic efficiency. How do economists deal with this issue? When it is discussed, the desire for equity and redistribution is considered as legitimate by economists, but they stress the importance of ensuring this in the most efficient way possible. For example, they argue that if policymakers want to make sure everybody has access to the telephone, a program of specific subsidies to the poor could be created. Nevertheless, the issue of equity is peripheral to the concerns of economists.
Economic efficiency is a much more central concept, the one on which economists have been able to build their authority as policy advisers.

Finally, general values of neutrality and objectivity claimed by all sciences were rarely called upon by economists to justify their jurisdictional claims over telecommunications policy. One could assume that earlier boundary-work has established economics as a scientific discipline, and a general recognition of economic expertise has been attained. Indeed, references to "Mertonian" values are more explicit when a group of experts first attempts to establish themselves, to gain enough intellectual authority to create institutions to support their activities: university departments, associations, or scientific journals. Once a group gains sufficient authority and material resources, boundary-work may be much more varied. It can be performed to maintain the jurisdiction of the group vs. contiguous disciplines competing with them or to expand into new sectors. Boundary-work can also be used to maintain one's cognitive authority when involved in the political process. Indeed, I should stress again that the political arena is often a very challenging environment for experts in general. The facts presented by experts in the political arena are deconstructed in such a way that the public can see the indeterminacy of science.

The political process casts doubts on the disinterestedness and the certainty of science. ... The process of deconstruction tends to exaggerate the extent to which science deviates from the Mertonian norms. It suggests, for example, that scientists frequently disagree in their interpretation of data, that experts can be found to support virtually any reading of evidence, and that the choice among different interpretations is ultimately either arbitrary or else colored by political interest. Such themes, frequently sounded in regulatory controversies, challenge the view of science as a disinterested search for truth. ... exposés of uncertainty and disunity in science undermine public confidence and raise troublesome questions about whether scientists really deserve the symbolic and material rewards they have claimed from society in this century (Jasanoff, 1987, p.199).
Jasanoff (1987) argues that scientists involved in the process of regulating products which can pose a risk to human health and to the environment try to balance the deconstructive effect of the political process with boundary-work whose primary function is to create a frontier between what is science and what is policy. Regulation of hazardous products is an arena which is especially difficult for experts, given the very frequent absence of consensus among experts involved in the policy process. In my case study, disagreements among experts involved in the political arena existed but there was a general consensus among economists on the formal knowledge applicable to the case. The absence of strong deconstruction, especially in the later phases of the process, may explain the absence of boundary-work demarcating economists' "scientific facts" from their "political statements."

7.1.3 Engineers and economists

Engineers can be considered as potential competing experts in the telecommunications sector. Indeed, electrical engineers have the technical expertise to build and maintain the telecommunications networks and could expand this jurisdiction into the policy arena. However, electrical engineers were practically absent from the policy process that led to the adoption of the telecommunications Act of 1996. The professional organization representing the electrical and electronic engineers, the IEEE (Institute of Electric and Electronic Engineers), never presented comments or positions on the subject of competition in the telecommunications policy or related to the Telecommunications Act of 1996. The association's core activities are publishing academic journals and sponsoring conferences and meetings. Nevertheless, IEEE-USA has a Committee on Communications and Information Policy whose role is to "promote the formulation of sound legislation, regulation and policies relating to communications, computer and information technology development" (IEEE Website,
This committee has issued position papers on topics such as privacy or spectrum auctioning, but nothing about the Telecommunications Act.

When asked why the organization did not take a position on that subject, an IEEE official responded that it does not get involved in politics. IEEE proposes policy alternatives only when technology is involved. The organization considered that the bill was not about technology but, rather, about political matters. Later the respondent added, "whether the telecommunications industry is a natural monopoly or not, that is not for us to say, it is not about technology." The boundary-work performed by engineers distinguishes between the realm of the "technological", over which they claim jurisdiction, and the realm of the "political," over which they do not. One could propose that the boundary-work is used according to the interests at stake in the debate. When the interests of its members are directly involved, the engineers' organization includes the issue of debate inside its field of expertise. The association did not consider the adoption of the Telecommunications Act as possibly having a negative impact on the engineers and, therefore, did not get involved in the policy process. On the other hand, the demarcation between "technology" and "policy" can be modified to allow the engineers to take a position. Examples of such strategy can be found in the 1997 publication of the IEEE-USA public policy agenda. For example, IEEE-USA advocated a more coherent national competitiveness policy and greater federal involvement in technology policy.

Another reason for boundary-work demarcating "technology" from "policy" is the desire to stay away from controversial debates. Indeed, it appears that engineers considered that providing policy advice on controversial issues might harm their professional status and credibility. I presented in Chapter 3 some examples of

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engineers, testifying in congressional hearings in the 1970s, who refused to recommend one policy option over another and limited their comments to description of the technological changes. By marking a boundary between the technical and the political, engineers have secured their jurisdiction over a certain set of tasks, within which no one can challenge their authority. By avoiding the dangerous territory of policy advising, they have protected themselves from future controversies. Of course, boundary-work is flexible, and in certain cases, engineers will be involved in contentious debates, such as public funding for science and technology.

7.2 Expertise and political discourse

The competition for recognition is one aspect of the process through which a group of experts become accepted policy advisers. However, the differentiation between who is a legitimate expert and who is not, is not made in a political vacuum. In the political arena, this demarcation is not only based on occupational prestige and boundary-work but also on the concordance of experts’ advice with dominant political discourse.

The case study on telecommunications policy in the United States has shown that experts’ influence on policymaking is at the level of the political discourse in this policy sector. Experts’ ideas, concepts and categories of analysis can influence how decisionmakers approach a policy sector: what is considered to be the problem and the range of possible solutions is often delimited by the formal knowledge of experts. However, the political debate on telecommunications policy is part of the broader dominant discourse on the appropriate role of the state in the economy. The
elaboration of telecommunications policy in the 1980s and 1990s has also to be examined in the broader context of the dominant discourse on state intervention which grew in the 1970s in the United States. This section will discuss the relationship between this overarching discourse and the recognition of expertise by policymakers.

The dominant political discourse on the economic role of governments is molded by a number of factors and varies from one country to another. In the United States in the 1970s, one could observe a shift of the dominant discourse on the role of the state in the economy, which directly affected the discourse on regulation in the period under scrutiny. The role of the state as an economy stabilizer (Keynesian policies) or as a defender of public interest (regulatory policies) was challenged. A central explanation for this change in the dominant political discourse is the mobilization of business interests and their activities toward a transformation of the dominant ideas and views on the appropriate role of state in the economy.

I have mentioned in Chapter two that the business community mobilized during the late 1970s to react against what it saw as an increasingly inhospitable environment for businesses and the economic problems with which they were faced. This mobilization did not only take the form of lobbying but also activities aimed at influencing the intellectual climate. First, corporations engaged in advertising campaigns of a new sort, not aimed at selling products or services, but advocacy. By the end of the 1970s, major corporations were spending about a third of their advertising budget on these advocacy campaigns in order to make the public more supportive of their economic and political interests (Vogel, 1983).

The second target of business activity to influence the public discourse was universities. Starting in the 1970s, corporations dramatically increased the funding they offered to universities. However, corporate funding was not channeled
indiscriminately to all universities, programs or research projects: schools, departments or faculties more likely to support corporate views were favored. Business schools, certain prestigious public policy schools, and biomedical research were especially targeted for funding (see Dickson and Noble, 1981). By providing financial support to sympathetic academic disciplines, schools and research, the industry contributed to the increase of the production and the diffusion of expertise which supported their political discourse. For instance, having an increasing number of academics from respected universities denouncing the excesses of regulation not only increased the credibility of the industry's opposition to environmental regulations, but also slowly changed what was viewed as the appropriate policy options, and what was said in the public domain about regulatory policy. It slowly transformed the dominant discourse on regulation.

Dickson and Noble (1981) describe a case where the industry provided funding for academic research on regulation. The MIT-Harvard Joint Program on the Impact of Chemicals on Human Health and the Environment, financially supported by groups such as the Chemical Manufacturers Association, Dow, Monsanto, Exxon and DuPont, was created in 1979 to explore alternatives to regulation. The program brought together a variety of disciplines from both universities (health sciences, engineering, policy analysis, economics, political science, law) under research themes and approaches which reflected the industry concerns. A member of the Kennedy School of Government, who was involved in the program, explained that regulation had been

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5 "In their search for legitimacy, [corporations] are buying into basic laboratory science, toxicology, epidemiology and other areas of public health, as well as policy-oriented disciplines such as economics, political science, and management, and creating from scratch new policy institutes on campuses throughout the country. In all these fields, the leased schools will provide reams of data, the scientific publications, the cost-benefit and risk assessment analyses, the policy recommendations, and the new generation of students lured by ample fellowships, new programs, and large research grants. Industry will provide some cash" Dickson and Noble, 1981, p.285.
devised with a "disregard of fundamental economic aspects of regulation and a well-nigh universal suppression of innovation and competition, and protracted and unnecessary disputes between business and government over information disclosures, plant inspections etc" (Dickson and Noble, 1981, p.286).

The third aspect of the business activism to influence the political discourse is financial support for policy institutes or policy-planning organizations defending pro-market positions, such as the American Enterprise Institute, the Heritage Foundation, the Hoover Institution, and the Institute for Contemporary Studies (Peschek, 1987). Business groups financed institutions whose views were relatively similar to theirs. Conservative institutions which stressed the negative consequences of the government's intervention in the economy became more prominent: they hired more analysts, diffused their views in a greater variety of publications, and organized conferences and seminars. Although I provided some details about the growth of the American Enterprise Institute and the Heritage Foundation in the previous chapter, they are not isolated cases. On the contrary, they are prominent cases of an important and continuing trend of the 1970s and 1980s.

Combined with the public campaigns and the support of academia, the business-supported new strength of conservative policy institutes led to a shift in a dominant policy discourse.

Policy-planning organizations have played an important role in the process of political and ideological reconstruction over the last decade (1977-1987), reflecting broader elite thinking on major issues while refining it into a coherent, long-range perspective. Policy institutions actively sought to define problems, shape public opinion, and set the policy agenda through briefing government officials, bringing their findings to the attention of the media, and providing forums where members of different power centers (business, politics, law, academia and so on) could seek common positions on important policy questions (Peschek, 1987, p.239).
On domestic issues, the new dominant discourse on the appropriate role of the federal government in the American economy was that it needed to withdraw. Governmental intervention was considered to be detrimental to the economic development of the country. The problem of high inflation was blamed in great part on regulatory policies, which were considered to be either excessively costly, burdensome and/or ineffective.\textsuperscript{6} Armed with the resources and the formal knowledge to support and diffuse these views on governmental intervention in the economy and on regulatory policies, policy institutes were in very good position to influence political debates.

By supporting research which agreed with the industry views and interests, business groups encouraged the creation of an expertise which would in turn influence the premises of policy debates. Indeed, I have already discussed how the influence of experts is mostly to be found at the level of the general political discourse. By influencing the public and policymakers view of what is the proper role for regulatory policymaking, neoliberal economists set the parameters for the new regulation on telecommunications services.

By underlining business support of the production of economic knowledge on regulation in policy institutes and universities, I do not mean to imply that the production of knowledge cannot be autonomous from the dominant groups but I want simply to stress that the creation of a body of formal knowledge is influenced by many social and political factors. In fact, economists will produce economic analysis which argues that regulation of telecommunications services is inefficient without receiving funds from the industry.

\textsuperscript{6} Business demands for a greatly diminished government intervention were not matched in foreign policy, where a strong business coalition supported Reagan's important increases of military spending.
The influence of business support on the production of formal knowledge, which in turn guides the political discourse on the role of the state in the economy, is only one part of the equation. The relationship between expertise and political discourse is complex; the dominant discourse can also become an independent variable affecting expertise. More precisely, it can have an impact on the process of recognition of experts as legitimate advice providers. *Once a shift in policy discourse takes place and the dominant views are established, the dissenting views are in a very weak position.* Experts whose views do not agree with the dominant discourse are not going to be considered good advisers. If an expert or a group of experts is proffering advice on State intervention in the economy that is not congruent with the dominant set of norms, beliefs and ideas, the advice will not be considered relevant, but rather as originating from "incompetents."

The process of recognition of competent experts in the political arena and their need to agree with the dominant public discourse can be likened to the internal process of validation in academic disciplines mentioned in the previous chapter. Academic disciplines, as a "reputationally controlled system of knowledge production" (Whitley, 1984, 1987), base the validation of knowledge on the acceptance of mainstream views in the discipline. Academics who ignore the dominant approaches and research agenda of their disciplines will be put at the periphery of the system: publication in lesser-known journals, inability to receive funding, and so forth.7

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7Whitley (1984) mentions that the level of deviance from the mainstream views can vary from one discipline to another. Some disciplines have a lower level of mutual dependence, i.e. scientists are less dependent on their colleagues to obtain good reputations and solutions to their problems. For example, many social science research projects are carried out without relying extensively and directly on colleagues' work. In these fields, the core of the research programs is more diffuse and deviance from it less damaging for the researcher's reputation. However, economics is identified as having a high level of mutual dependence, especially in more theoretically-oriented research, which is at the top of the reputational-hierarchy.
The recognition of experts in the political arena bears similarities with the characteristics of the reputational systems based on academic disciplines. Knowledge-producers whose views and recommendations are outside the dominant political discourse will be at the periphery, in terms of providing advice to policymakers. In telecommunications policy, this took the form of excluding institutional or other non-classical economists from the policy arena: not being invited to congressional hearings or conferences on telecommunications regulation. It is important to stress that the notion of adherence to the dominant discourse does not preclude the presence of disagreements among experts on what are the appropriate policy choices. However, these disagreements will be within a limited range of options. American experts on telecommunications policy could disagree about what controls should be imposed over the RBOCs to ensure they do not take advantage of their dominant positions, but they would all agree that competition should replace monopoly, regulations generally are inefficient, and private ownership is better that public ownership. The knowledge-producers who diverge from the canons of public discourse on a given policy area should not expect to be invited by the policymakers as expert witnesses in a hearing, on a commission of inquiry or to prepare a report on the question. It is most likely that they will be considered incompetent, and their knowledge irrelevant, or even more likely, they will simply be ignored.

Therefore, the recognition of economic knowledge by policymakers as relevant for devising sound public policies did **not take place in a political vacuum**. Neo-liberal economists’ views on regulatory policy were congruent with the business-oriented views which came to dominate the political discourse in the United States during the time period under scrutiny. Consequently, these economists were considered the most competent and legitimate experts on the subject. The relationship between expertise and the political sphere and the rise of economists as the legitimate
advisors on telecommunications policy was discussed by one of the interviewees in the following terms:

Here's the formal way the decisionmakers begin to acquaint themselves with let's call it the : "new learning": The FCC began to hire and listen to economists, really at the beginning of the Carter years. That was the time when Kahn was at the Civil Air Board and was pushing airlines deregulation. At the same time, the Commission, under Chairman Ferris, was beginning to eliminate regulation in cable, modifying rules, allowing local exchanges companies to get involved in information services. **With the coming of the Reagan administration, a lot of these economic ideas began to become part of the political realm. So, the politicians and the policymakers had absorbed the economic learning, or at least, convenient segments of it, and begun to put it in policy terms.** So, you have the decisionmakers, especially the FCC, gathering expertise on their own. ... At the FCC, you begin to see appendices with statements of economists. "Here's in detail the economic rationale for what we are doing." ... So, you begin to not only have experts participating directly but also to see policy arguments clothed in economic terms. Or economics making its way more prominently into legal policy rationale, what the lawyers are making.8

Another interviewee also mentioned the issue of the political environment in the recognition of expertise. "Sometimes you write something, maybe it's before its time and nobody pays attention."9 When the political tides change, the same research can become relevant policy advice. When the dominant policy discourse changes, the political arena is open to new experts.

7.5 Conclusions

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8 Interview with administration official, tape 1, Washington D.C., 26 February 1997, emphasis added. When asked about publications or texts which were influential in the movement from monopoly to competition in telecommunications, this interviewee answered: "I think a lot of it has to do with the growth of economic analysis, certainly at the FCC."

Economic formal knowledge became recognized as the legitimate knowledge with which sound telecommunications policy should be devised. Economic efficiency was proposed by this group of experts as the criterion to judge appropriate policies in the sector. To achieve economic efficiency, they recommended relying on market mechanisms such as competition, incentive regulation, and cost-based pricing. Issues of equity and redistribution were not completely eliminated from the political arena, as the enacted bill included many provisions for universal service. Hence, one could not declare that economics completely monopolized the political discourse on telecommunications. Nevertheless, from the 1970s to the 1990s, it transformed the policy paradigm within which telecommunications policies were elaborated. My inquiry focused on the congressional process, as I emphasized the policymaking of the Telecommunications Act of 1996. But, as I mentioned in some instances, the influence of economic formal knowledge was not only at the legislative level, but also within the regulatory policymaking, in FCC decisions.

What have I learned from the examination of American telecommunications policymaking that sheds light on the issues related to the validation and recognition of experts by policymakers? How could economists dominate the competition among knowledge-based groups to provide policy advice? Professional status and boundary-work are two elements on which experts build to become recognized as legitimate providers of policy advice. In the case under scrutiny, it seems that boundary-work was the central strategy used by economists to become the dominant experts. By underscoring economic efficiency as the value on which their policy recommendations were built, economists built their jurisdictional claim over regulatory policies in general and regulation of telecommunications in particular. Cognitive authority is not only built on boundary-work: professional status and prestige are also criteria used to discriminate the "competents" from the rest. But professional status alone is not sufficient: the lawyers' high level of professionalization did not prevent the
rise of economists as the dominating group of experts in the political arena. Moreover, competition among groups of experts for recognition is taking place in an arena with competing interests. The validation of a body of knowledge is not only dependent on the strategies adopted by groups of experts, but also on how their policy advice agrees with the dominant views.

The political basis for expertise will vary according to the dominant views and interests in a policy sector at a given time. We can assume, for example, that in a period and a sector where environmental groups are very powerful and their views dominate the political discourse, biologists and chemists whose research is more in line with the environmental groups' views would be considered the legitimate experts. In my case study, business groups that wanted regulation to be modified, lessened or eliminated were the most powerful actors in the political arena, and the experts whose advice was providing technical and intellectual support toward this policy change were portrayed as the relevant experts. Neo-liberal economists offered that intellectual support.
ANNEX 2

Baumol, William J. and Gregory Sidak, Toward Competition in Local Telephony, 1994, p.26:

"Economists who testify on regulatory issues continue to place primary emphasis on the criterion of economic efficiency, as though it was the only defensible goal. There are several reasons for this. First, this premise has proven to be a powerful analytic tool, often yielding concrete and unambiguous recommendations for policy. This clearly underlies the substantial measure of agreement among economic witnesses in recent years, even among those testifying on behalf of clients on opposite sides of case. All these witnesses surely consider themselves to be dedicated to the public interest, and their general recommendations coincide because the principle of economic efficiency implies what course of action will serve the general welfare most effectively. Second, the principle of economic efficiency is persuasive in itself, and derives further persuasiveness from the fact that the competitive-market model calls for courses of action identical to those required for economic efficiency."

Brock, Gerald, Telecommunications Policy for the Information Age, 1994, p.301:

"While several goals have been widely shared by telecommunications policy makers, differing views on the importance of allocative efficiency or cost-based pricing have been incorporated into policy. The benefits of marginal cost pricing for total allocative efficiency are a celebrated theme of economic analysis. Many economists assume that allocative efficiency is an universally accepted goal. However, in the telecommunications policy process, allocative efficiency has been controversial because of its interrelationship with other goals."

Crandall, Robert, "What ever happened to deregulation?", 1988, p.278:

"The FCC has begun to change the method of pricing access by requiring a monthly "subscriber line charge" to defray more of the fixed costs of the local subscriber loops. This pricing is more efficient because it does not require the price per minute of long-distance service to be elevated to cover the fixed costs of local connections. This repricing is also likely to stunt the growth of "bypass" investment by long-distance companies or their customers seeking to avoid these uneconomic charges. But it has been extremely unpopular since it has raised local telephone charges while allowing long-distance charges to fall in line with costs. A very large share of long-distance charges is paid by businesses; hence, populists see the issues as a "consumerist" issue when, in reality, it is one of economic efficiency," emphasis added.

"Our prospective is one of economic efficiency. That is, in establishing rules that prevent anticompetitive outcomes ... the key question is whether telecommunications services are produced in the least costly manner, i.e. the economy is using the least amount of resources to produce the greatest output of goods or services. As Professor Paul Samuelson explains in his classic introductory textbook: "Efficiency is a central (perhaps the central) concern in economics. Efficiency means there is not waste. The economy is performing efficiently when it cannot produce more of one good without producing less of another." (Samuelson and Nordhaus, Economics, 1985).

Spulber, Daniel, "Deregulating Telecommunications", in Yale Journal on Regulation, vol.12, 1995, p.27:

"This article examines whether it would serve economic efficiency and consumer well-being to remove the two remaining line-of-business restrictions imposed on the RBOCs."


"There is no lack of examples of markets in which regulation creates a serious misallocation of resources. Entry regulations in transportation (rail, airlines, trucking, buses, taxis) have raised prices and reduced efficiency. Further, there is no doubt that regulation is often employed by government to achieve various objectives, such as income redistribution and promotion of particular industries, without regard to economic efficiency. It is well documented that many regulatory programs are primarily redistributive in nature and are the result of political pressure brought to bear by consumer or industry pressure groups acting out of self-interest. However, the failures of regulation need not discourage the study of regulation in the context of welfare economics. By examining optimal regulation, the shortcomings of actual regulations can be better analyzed and understood. If we view market failure as a necessary [not sufficient] condition for the establishment of regulation, we may identify conditions under which regulation is unlikely to promote economic efficiency."
"This is, first and foremost, an economics book. Thus, as much as possible, I have tried to apply the perspective of the economist to the telecommunications industry. This industry has been greatly influenced by politics, which requires that any analysis explain how political forces affected it. This is done primarily in chapter 8, which discusses how political forces have led this industry away from economic efficiency." (p.x)

"From the standpoint of economic efficiency, competition in the telecommunications industry must be regarded as a healthy development. Both federal and state pricing practices have resulted in a departure of many telecommunications prices from their costs, and it is this departure that results in a loss of economic efficiency. Most of these losses to economic efficiency are concentrated in the various toll markets. From the standpoint of the economist, the primary pricing problem in the telecommunications industry is how to get toll prices down and residence local prices up." (p.6)
Chapter 8: The United States in Comparative Context and Conclusions

This case study of American telecommunications policymaking provides insights about expertise in the political arena. Before reviewing my findings and discussing their contribution to the literature on expertise, this chapter brings forward some comparative analyses. I contrast the American case with telecommunications policy in France. I briefly compare the influence of experts and examine how the competition among experts in France differs from the competition in the United States. This brief comparison highlights certain features of the American policy process, especially the impact of political institutions. Given the limited resources of the project, my research does not undertake a full-scale comparison of the two cases.

A brief comparison of the liberalization of telecommunications services in France and the United States offers the opportunity to compare relatively similar results in very different institutional contexts. Indeed, like the United States, France adopted a piece of legislation in 1996, the "Loi de réglementation des télécommunications," that opened all telecommunications services markets to competition. However, France's institutional configuration differs greatly from the American model. Telecommunications policymaking in France involves far fewer institutional actors than in the United States. The courts are not involved; Parliament is a peripheral actor without much initiative power; there is no antitrust authority directly involved in the policy process and no federal/state division of power. The policymaking authority is concentrated at the ministry responsible for the sector, the Ministère des Postes, des Télécommunications et de l'Espace. France Télécom, the monopoly provider of telecommunications services, was an integral part of the French administration until 1990 when it became a public corporation, and it was still entirely owned by the State until 1998.
The benefit of comparing these two cases goes beyond the opportunity of observing the effect of institutions on the influence of experts. It also allows us to look at another case of the experts' competition for recognition. National experiences in terms of occupational histories, in the development of universities or other types of formal knowledge-producing institutions, and in the relationship between the State and formal knowledge have an impact on the conditions of competition among experts. France offers an interesting illustration of how competition for recognition as the legitimate policy advisors is pre-determined by the existing institutional arrangements and the system of professions. In this different environment, experts resort to different strategies to gain their position in the political arena.

8.1 French and European telecommunications policy

The French State is known as one of the most interventionist in the capitalist world (Hall, 1990). The active role of the State in the economy takes various forms: industrial policy, State ownership or indicative economic planning through the Commissariat au Plan. The State's role in the telecommunications service industry in France took the form of State ownership. In the United States, the provision of telecommunications services has always been under private management with various degrees of public regulation. In France, the State nationalized the industry and made it an integral part of its public administration at the end of the 19th century.

In France, as in most of Europe, telecommunications services were provided on a national monopoly basis by a governmental agency or a public corporation. These public corporations often integrated the provision of postal service and were named PTT (post, telegraphs and telephones). The provision of telecommunications services was not seen as a market transaction but as the responsibility of the State. The same vision applied to
other infrastructures such as transportation or postal service. In France, in particular, telecommunications as well as these other infrastructures were considered to be "public services." The concept of public service is prominent in the policy discourse on telecommunications in France and encompasses three elements. First, it refers to the activities and structures that are under the responsibility of the State. The State becomes a provider of services rather than the manifestation of authority. According to this approach, the goals and means of the State in providing services are different from those of a private organization; the State aims to answer the collective needs, not promote its own interests. These activities are often conducted in a monopolistic environment. Monopoly is at the very heart of the institution and legitimates the notion of public service; different management principles must prevail, since only the State is able to satisfy the collective needs (Chevallier, 1987, p.71).

Second, the notion of public service in France is a legal regime under which the users have certain rights and protections and the State has obligations. The principles of continuity and equality of services for all citizens as well as the possibility for the operator to modify the rules to satisfy the needs of the public are the pillars of the legal system. Finally, public service is a "legitimizing myth in which the state is portrayed as generous, benevolent, only concerned with the welfare of its subjects" (Chevallier, 1987, p.3, translated from French by the author). This legitimization system endows public servants with a professional ideology of being the representatives of the State and responsible for the public interest of the nation.1

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1 This concept evolved throughout the 20th century. In the early years, local governments came to manage a series of services (water, urban transportation etc.). Starting in the 1930s, the public services developed quickly: organization of the grains markets, nationalization of the railways (SNCF), post-war nationalization of electricity. The political rationale for these actions was varied but was based on the idea that these activities, "given the interests at stake and the objectives they aim, must escape the market
The shift from the "public service" policy paradigm to the new vision where telecommunications services can be traded like any other market commodity is clearly a policy change of the third order, according to Hall's classification. The traditional monopolistic view of the public corporation provider was replaced by the application of competition to all segments of the industry. The adoption of the "Loi de réglementation des télécommunications" in France in 1996 is the concretisation of this policy shift. However, it was not an uniquely French policy process. It began at the European Union level where, under the direction of the European Commission, the policy objectives of the telecommunications sector were revised. I will briefly review the two-level (national and European) policy process which led to the adoption of the French telecommunications legislation. Afterward, I will examine the role of expertise in this policy process. This section will conclude with a discussion of the competition for recognition among French experts on telecommunications.

The European Commission contributed in a crucial way to the rise of the new policy paradigm for telecommunications services. Through its policy papers and proposals, it set the agenda and identified policy options. Within the Commission, two logic and be managed according to different criteria" (Buby and Boual, 1994, p.11).

Recently, the concept of public service has been challenged by the process of European integration. Mostly, the monopolistic nature of the provision of the services is contested. Article 90.2 of the Treaty of Rome stipulates that the "general interest services" are, in principle, subject to the rules of competition and therefore cannot be granted a monopoly. Nevertheless, a member-state can ask for a specific derogation to this general rule on the basis that the application of the Treaty will prevent the organization from fulfilling its mission. The European Union has, however, no legal competence over state ownership; it can neither favor it or prevent it (article 222 of the Treaty of Rome). In many sectors, the Commission is using Article 90 of the Treaty as the legal basis for the application of competition rules in sectors such as the transportation of electricity, water and telecommunications.
centers of authority shared jurisdiction over telecommunications policy: the Directorate General (DG) XIII (Telecommunications and Information Technologies) was responsible, among other things, for "promoting efficiency, innovation and competitiveness of the European telecommunications sectors" and the Directorate General (DG) IV was responsible for the application of the competition laws. Despite continuous collaboration between the two directorates-general during the period under scrutiny, a shift in the leadership and the balance of power occurred over time, from the DGXIII to an increasingly assertive DGIV.

Given its many responsibilities concerning the management of European research programs, the DGXIII has been characterized as rather interventionist, often advocating a European industrial policy. The growing power of the DGIV in telecommunications resides mainly in its capacity to implement and enforce policies. Given its reliance on competition law, the administrative culture of the DGIV is quite dissimilar to the culture of the DGXIII. The industrial policy culture is replaced by an antitrust culture. The staff of the DGVI is said to have a legalist approach to problems (although many of its civil servants are economists) as well as an implicit belief that competition is good policy (Cini, 1996). Beginning in the 1980s, the DGIV increased its importance and its autonomy within the EC. The directorate particularly benefited from the predominance of neoliberal ideas during the 1980s as a form of ideological legitimization of its actions. Although the actual competition policies adopted by the directorate have often compromised with "doctrinal purity," the importance of neoliberalism as a rhetorical tool should not be underestimated.
In June 1987, the European Commission published a Green paper on telecommunications which became a very important document in terms of agenda-setting. Indeed, the subsequent policy papers and directives of the Commission, as well as the debates in member states were conditioned by the content of this report. It recommended the introduction of competition in telecommunications services but excluded the basic voice services which represented about 80% of operators' revenues. In 1990, this recommendation was translated into a directive which also mandated a revision of the exclusion of basic voice services.

Accordingly, the Commission published a report in 1992 that evaluated whether this special dispensation should be removed based on two main criteria: the financial equilibrium of the telecommunications operators and the impact of the monopoly on the development of exchanges within Europe. Even though the preparation of the 1992 Review was the DGXIII's responsibility, many actors were involved with its elaboration. The DGXIII did conduct some pre-consultation before the publication of the report. It met with representatives of national governments, national operators, regulators, business users and the new entrants to discuss the main issues. Economic studies undertaken by consultants provided input for the elaboration of the 1992 Review. Two British consultant firms were commissioned to prepare studies to "examine the long-term aspects of telecommunications development in the European Community." To prepare the

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report, the Commission built on its own analysis and on the massive quantitative study by the consulting firm Analysis Inc. and the qualitative report of Arthur D. Little Inc. The data from the quantitative report were used to discriminate between the four policy options identified by the Commission. The positive impact of liberalization on the projected growth of the telecommunications industry was presented by the Commission as a crucial factor to reject the status quo.

Indeed, the 1992 Review spelled out four options to be considered by the member states: the status quo, the regulation of the tariffs and investments at the European level, the liberalization of all telecommunications services, or the introduction of competition in voice telephony only among member states. The fourth option was recommended in the report, which proposed it as an intermediary step to greater liberalization. After the publication of the Review, the Commission entered a phase of intense negotiation and consultation with member states and with telecommunications providers and users. Eighty written comments were submitted to the Commission and more than one hundred organizations were consulted during public hearings which ended in January 1993. The great majority (95/115) of the contributions came from the operators, the industry (providers of services or manufacturers of equipment) or from major users of telecommunications services. The other contributions were from workers' unions.

In May 1993, the Commission handed in a report to the Council of Ministers that presented the Commission's new proposals developed after consultations the parties.6 The general consensus emerging from the consultation was, according to the Commission, that "there is a general acceptance that liberalization of telecommunications services markets is

6 Communication au Conseil et au Parlement Européen sur la consultation sur l'examen de la situation des services dans les télécommunications, COM(93) 159, Avril 1993.
the inevitable result of technological and market developments." Most participants did not support the solution of partial liberalization proposed by the 1992 Review. The national operators expressed their preferences for complete liberalization in the longer term. The majority of users and providers of services also preferred total liberalization, but did not want further delay. They also stressed the importance of considering the introduction of competition in infrastructures. They agreed that high telecommunications tariffs and the lack of supply of private lines and advanced services threatened the competitiveness of European firms. The positions of workers unions were rarely underlined by the report. Based on these consultations, the Commission changed its recommendation to the Council of Ministers and proposed liberalizing all telecommunications services starting January 1, 1998, and an examination of the possible liberalization of telecommunications infrastructures. The Council Resolution of June 16, 1993, ratified these recommendations.

The decision to liberalize all services after a delay of five years was a compromise to accommodate national operators such as France Télécom. By delaying the liberalization until 1998, the Commission gave operators the time to adapt their tariffs and practices in exchange for the member states' support of liberalization. The commissioner responsible for the DGIV, Karl Van Miert, confirmed that this strategy guided the Commission's actions.

Liberalization of telecommunications was done over a ten-year period. It is a gradual evolution, designed this way to give time to the national operators. This evolution by stages is aimed at making the changes acceptable and at granting time for the national operators to adapt.  

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7 Proposition of Council Resolution related to the Review of the situation of the telecommunications service sector, 1993, p.3.
When considering the European telecommunications liberalization policy process and its outcome, the leadership of the European Commission cannot be denied. "The Commission initiated the proposals for market opening, set the agenda for the Community deliberations, and pushed for approval of specific directives. In every instance, the Commission was ahead of the member states in its objectives of EC-level reforms; in many instances Commission proposals had to overcome the resistance of major member states" (Sandholz, 1993, p.267). Indeed, the DGXIII and the DGIV are autonomous actors with established preferences and strategies, and the European institutional configuration gives the Commission the tools to act unilaterally.

Despite this manifest leadership, the Commission never imposed its decisions on member states without a certain level of acquiescence from the latter. As the EC and the member states are continuously interacting, the policymaking process must be based on a minimal consensual basis. Some authors even suggested the Commission was used by member states to impose on their populations decisions which otherwise would not have been accepted (Thatcher, 1996; Cohen, 1996). For example, the very controversial privatization of France Télécom was presented to the public as necessary, given the liberalization of the industry "imposed" by the European directives.

Once a compromise was reached at the European level, national administrations had to transpose the European proposition into national legislation. In France, the Direction Générale des Postes et des Télécommunications (DGPT) was responsible for the preparation of the law. The DGPT used a series of consultations to elaborate the legislation, mainly with representatives of the industry and business users.\(^9\) Despite this

\(^9\) De nouvelles règles du jeu pour les télécommunications en France. Texte de la
openness, the role of the DGPT as the organization that structured the debate and identified policy alternatives remained central. The director of the DGPT, Bruno Lasserre, his chief of staff and the director of legal affairs drafted the bill. The bill was very similar to that proposed by the DPGT in the "orientation document" used as a blue-print for the public consultations. A licence regime was to be put in place to regulate the liberalization of telecommunications services and networks. Licences were to be awarded by the Minister and had to adhere to a set of conditions (Cahier des charges).

Under the new law, the provision of universal service remains the responsibility of France Télécom. Universal service includes the obligation to serve every region at an affordable price and to provide public phones and directories. The funding of universal service is to be managed through a special fund to which all operators will contribute, according to their traffic volume. As for interconnection, France Télécom must allow service providers to connect to its network. A commercial agreement between the two parties sets the conditions of the interconnection and is subject to review by the regulator. Until December 2000, the interconnection charges were to include a compensation for France Télécom's low subscription tariffs. The adjustment of the tariffs structure will eliminate the need for such compensation.

consultation publique organisée par la DGPT du 15 octobre au 15 décembre 1995 pour préparer la loi de réglementation des télécommunications, 1995. The adoption of such a large consultation process can be regarded as a method of social negotiation. The procedure had been used with success by the French government for earlier reforms at France Télécom and the DGPT considered it a useful way to counter possible oppositions to the project. As the director of European Affairs of the DGPT declared, "the consultation gave a foundation and a legitimacy to the preparation of the legislation." Interview with Michel Lejeune, Director of European Affairs DGPT, June 28, 1996, quoted in Rivaud, Phillippe (translated from French by the author), p.65.
Finally, the legislation created a new independent regulatory agency. The Autorité de régulation des télécommunications (ART) is composed of five members; three of them, including the president, are nominated by the government, and the two others are selected by the National Assembly and the Senate. ART's main functions are to define the rights and obligations of the licensees and the technical and financial conditions of interconnection. The regulator also establishes the amount of financial contribution to the universal service funds and enforces the laws and regulations that apply to the operators. In addition to the bill, various executive decrees regarding the cost of universal service and the conditions and requirements to be included in interconnection agreements were published.

A group of economists (Groupe Champsaur) was commissioned by the DGPT to propose recommendations regarding the issues of universal service and interconnection. The introduction of external expertise was aimed at bringing objectivity to the policy debate and ensuring equilibrium in the provision of information because France Télécom had for years developed and financed economic information about interconnection and related subjects. It was argued that if the regulator did not have a good understanding of the definition and calculation of these matters, it would be completely dependent on the better informed, in this case, France Télécom. Recommendations about the funding mechanisms for universal service, the modification of France Télécom's price structure, and the calculation of interconnection charges made by the group of economists led by Champsaur were all accepted and included in the bill or in executive decrees.

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The final product, the Loi de réglementation des télécommunications, was adopted without major modifications by the Parliament in 1996. The legislation marked the transition from a monopolized telecommunications market orchestrated by the State through France Télécom to a liberalized multi-provider market. The previous policy paradigm, the vision of telecommunications as a public service under the responsibility of the State, was replaced by one in which telecommunications became a commercial venture organized mostly by market mechanisms.

What was the influence of experts in this two-level policy change in telecommunications policy? The French case displays many differences when compared to the American example. My inquiry points at the minimal recourse to external expertise in French policymaking. With the important exception of the Champsaur Group, recognized experts in the telecommunications sector are to be found only within the confines of the State, i.e. the DGPT or France Télécom. The technocratic tradition of the French State creates a rather opaque policy process with a strong tendency for the public administration to monopolize expertise (Restier-Malleray, 1990; Viveret, 1989; Duclos, Jobert and Théret, 1994). Given the predominance of internal experts, the configuration of expertise in the field of telecommunications in France is much less diversified than in the United States. Academic expertise on telecommunications is very limited. Policy institutes such as the ones found in the United States do not exist in France.

The policymaking process in the American case confirmed the hypothesis that experts are more influential in structuring the policy debate or in identifying possible alternatives than in specifically selecting a policy option. Experts were crucial in modifying the framework within which policymakers would approach telecommunications policy. In France, I witnessed a purposeful administrative elite in charge of most of the policy process. Indeed, in the policy space left by the European Commission, the DGPT and the
high-level decisionmakers of France Télécom dominated the policymaking process. Furthermore, external experts had a punctual but real influence during the preparation of the legislation. The recommendations made by the group of economists led by the Champsaur were all accepted and included in the bill or in executive decrees.

Moreover, at the European level, the experts internal to the European Commission were actively involved in setting the agenda and defining the options from which policymakers had to choose. Some internal experts in the directorates general could be described as political entrepreneurs, i.e. individuals who are strongly dedicated and engaged in promoting a policy option. The leadership of the European Commission has to be considered in a broader political context. The trend toward greater competition in telecommunications was strongly supported by European business users who saw the high costs of telecommunications as a great disadvantage in the competition with their American or Japanese counterparts. The lobbying from these industries was exerted through different channels such as informal consultation groups. Moreover, the national monopolies were increasingly supporting liberalization, as it was creating opportunities for investing in foreign markets. The traditional operators were already changing their vision of their role and preparing alliances and investments abroad.12

Finally, given the limited human resources of the Commission, consultants were hired to produce economic studies on telecommunications in Europe. What was the influence of this external expertise on the policy process? Chamoux (1990) stressed the importance of the British consultants in elaborating the Commission positions. However, it appears they played the role of legitimization of the Commission policy decisions more than actually putting forward policy proposals to be considered. Indeed, the Commission's

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goal, and especially the DGIV's, was to open telecommunications services industry to competition. The Commission had indeed stated its goal before the 1992 Review; in a document published in 1991, it declared that "the integral application of competition rules is one of the main aspects of the policy conducted by the Commission in the telecommunications sector." An interesting critique of the recourse to consultants is expressed by a French parliamentarian in a report of the National Assembly examining the 1992 Review.

To support its reasoning, the Commission relies on the results of studies commissioned from two Anglo-Saxon consulting firms, famous for their ultra-liberal vision of the sector. Even though the invitation to tender is open to all consultants, one must fear that the Commission will choose candidates who are presenting a project, methods and conclusions that are closer to the orientations it wishes to give to the study. Wanting to please its client, the chosen consulting firm will not be neutral. About 70% of the studies of this nature are commissioned from Anglo-Saxon firms, and in the sector of telecommunications, the recourse to these consulting firms is not unbiased (Gambier, 1992, p.26, translated from French).

A European Commission official I interviewed confirmed that British consulting firms are very often selected to prepare studies for the Commission and adopt a neo-liberal perspective in their inquiries and reports.14

Internal experts in France and in the European Commission had a very direct influence on the changes that occurred in telecommunications policy. External economic

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Interestingly, this document attempts to portray liberalization as a non-political choice. "To ensure an effective competition in telecommunications is not a political choice. The option of a free market and of a competitive economy was envisioned in the Treaty and the competition rules of the Treaty are directly applicable."

14 Interview with European commission official, tape 15, Brussels, June 3, 1997.
experts in France had a direct influence on the specifics of the new legislation. At the European level, external experts were hired as consultants: their influence appears to be mostly in terms of providing legitimacy to the European Commission policy documents. Nevertheless, their contributions to the 1992 Review of the situation in the telecommunications services sector affected the Commission recommendations.

Therefore, it appears that in certain circumstances, expertise not only has an impact on the general policy debates but also on specific policy change. What are the conditions favorable for such influence? Institutional arrangements can offer some explanation for the variation between the two cases. The process of drafting the piece of legislation in France was quite closed and centralized: even if public consultations took place, the decisions were almost exclusively made within the DGPT. The legislative branch only rubber-stamped the bill. In that context, the recommendations of the Champsaur Group were not subjected to modifications and controversial debates between parties. In contrast, the elaboration of the American Telecommunications Act took place in a very adversarial environment.

Similarly, the power of policy initiative being concentrated at the European Commission, and the conversion of the relevant Commission's Directorates General to the benefits of competition in telecommunications, sufficed to set the paradigm shift in motion. This policy change took place in a relatively short period of time. From the Green Paper in 1987 to the decision to liberalize all services in 1992, the policy goals as well as the policy discourse on telecommunications were transformed. Likewise, the policy process at the European level and at the national level in France was relatively rapid as the policy authority was greatly concentrated. The adoption of legislation that allows competition in telecommunications services was not without discussions and disagreements, but the French institutional arrangements made it difficult for the
opposition to block the policy change. In the United States, given the fragmentation of the political authority, the conversion of one agency such as the FCC was not enough for a policy change of such scope to occur so quickly. It took more time and energy for the consolidation of the new policies. Liberalization was much more gradual, the first major step being the opening of the long-distance market in the 1980s. Again, this seems to confirm the hypothesis put forward by Weir about the impact of institutional arrangements on policy change.

The competition among experts for recognition from policymakers in France is quite different from the competition in the United States. Whereas economists were the dominant experts in the latter case, in French telecommunications policy the relevant group of experts was the "corps des ingénieurs de Télécommunications." Members of this group of engineers hold most of the intermediary and high level positions in the operation and administration of French telecommunications (DGPT and France Télécom). These positions are legally reserved for them. Telecommunications engineers have been considered the exclusive holders of expertise on the provision and management of telecommunications services and, hence, of policy advice on that matter. The status of this group of engineers is highly dependent on its relationship to the State. Indeed, in the French case, the prestige and professional status of telecommunications engineers is a central feature of the competition for recognition. Not only do they rely on the State to build their cognitive authority, but they are essentially created by the State (Suleiman and Mendras, 1995; Ziegler, 1995). Indeed, the competition among knowledge-bearing groups in France to be recognized as the relevant experts is largely defined by the corps system. The "corps" is a professional organization whose legal existence is protected by

the State and whose members go through identical training and recruitment procedures for their career in public service (Kessler, 1986). However, all corps are not created equal. The most prestigious ones are named, in the popular and academic language, "grands corps." Members of the grands corps are guaranteed an ascending career in public service and hold decision-making positions in the bureaucratic hierarchy. Given the extensive State apparatus and ownership in France of diverse sectors such as energy, bank and telecommunications, the range of opportunities is wide. Furthermore, later in their careers, many of them hold higher positions in the private sector. These members form the very cohesive elite of the country, owing to the fact that they all received the same education in the same very selective schools and they have a strong influence over policymaking in France.

The cognitive authority of the grand corps has derived from the very strict selection of members as well as from the legitimization provided by the close relationship to the State. Knowledge-based groups that are not part of this system or are at its periphery are at a great disadvantage when competing with the grand corps. In telecommunications policy, the "corps des ingénieurs des télécommunications" possesses an asset over competitors such as economists. However, in the wake of the policy shift which took place in European and French telecommunications, the domination of this group has been challenged by economic expertise.

The situation of economists in France differs markedly from that in the United States. The large and uniform group of American academic economists has no equivalent in the French case. The dominance of the "grandes écoles" has prevented the development of a strong university tradition. The economics departments in French universities have quite limited resources at their disposal. Moreover, the academic career advancement of university professors does not primarily depend on publication of research
works but on other factors such as seniority. In consequence, the production of new economic knowledge in universities is underdeveloped. Moreover, university professors have very limited access to policymaking centers. "Their participation to the ruling elite is limited by the caesura between the "grandes écoles" and universities. Academics are rarely called upon to play a central role in working groups, cabinets, interministerial committees, in short, in these centers where public policies are built" (Jobert and Théret, 1994, p.33, translated from French).

The "grandes écoles" system includes one major institution providing economic education, the National School of Statistics and Economic Administration (ENSEA). The school is run by the INSEE, the National Institute of Statistics and Economic Studies. Most of the statistical economists graduating from ENSEA join the government, usually taking positions in the field of data collection and processing at the INSEE or in government economic departments or ministerial cabinets (Albert, 1989).

As stated earlier, the French State tends to monopolize expertise within its boundary; the same applies to economic expertise. The monopolization of economic expertise has evolved toward a great homogeneity of views. It is argued that prior to the 1980s, the formulation of economic policies in France took place in a more pluralist environment. The diversity of perspectives was juxtaposed with the variety of organizations involved, the main ones being the macro-economic bureau of the INSEE, the Planning Bureau (DP) of the Ministry of Finance and the Commissariat général du plan. This relative pluralism faded with the rise of the "Corps des administrateurs de l'INSEE" and its conversion to neo-liberal public policies. The corps of administrators of INSEE is a technical corps, i.e. its members graduated from the Polytechnique and then attended the application school of the corps, the ENSEA. In the early 1980s, the training at the ENSEA was revised with the objective of increasing the international prestige of the
institution; research and teaching at the school were more aligned with the dominant paradigm in economics, the American-dominated neo-liberal paradigm. The professional identity and prestige of the corps was then not only based on the authority usually granted to State 'grand corps', but also on the "mastery of a strictly defined knowledge whose scientific quality is recognized, even based, on its international reputation" (Jobert and Théret, 1994, p.27). The hegemony of the corps over the provision of expertise in economic policymaking was reinforced by the disappearance of the economic analysis office of various ministries, leading to a great centralization at the Ministry of Finance. In the remaining units of studies and prospective, members of the Corps of administrators of INSEE took the key positions.

In the telecommunications sector, economic expertise takes a different configuration. First, there is one major university-based research center in micro-economics that is actively involved in research about telecommunications. The Institut d'économie industrielle (IEI) based in Toulouse is considered one of the biggest economic research centers in Europe. Founded and directed by two economists, Laffont and Tyrole, this center was able to circumvent the problem of weak funding for the university by engaging in research contracts with various private and public enterprises. Laffont published on the economics of telecommunications and on regulation in general, and was one of the core members of the advisory economic group led by Champsaur. He was also an informal adviser for France Télécom and for the Ministry of PTT.16 In addition to this university research center, economic expertise can be found in the telecommunications schools. Two schools provide engineering training in telecommunications: École national supérieure des télécommunications (ENST) in Paris

and the ENST in Brittany. Some professors in these schools publish economic research on telecommunications.

The group of economists concerned with telecommunications is small and is not as homogenous as telecommunications engineers. Nevertheless, the creation of a committee of economists to advise policymakers illustrates that the engineers’ monopoly is challenged. The absence of members of the corps in the Champsaur Group was criticized by the association of telecom engineers in their contribution to the 1995 consultation. Staffing practices at the DGPT and France Télécom show that engineers still dominate the provision of policy advice. However, they no longer monopolize the policy arena. Economists' professional status and prestige has increased, and on this basis, their jurisdictional claim over telecommunications policy has begun to take hold.

The comparative analysis presented here is too brief to offer the full advantages of a more complete comparison. For instance, a more detailed analysis of the role of the French and European business communities in the adoption of the liberalizing initiatives is absent from the discussion. Nevertheless, this section has provided some insights on the impact of national institutions in policymaking. The French case highlights how the competition between groups of experts can vary from one country to another. Given the different institutional context and the greater role of the State in France, agents of formal knowledge need to be part of a State-sanctioned system of professional groups in order to be recognized as legitimate providers of policy advice. Moreover, the comparison pointed to the fact that French institutional features can allow expertise to have a direct and

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17 However, only the Parisian establishment trains the students who will become members of the corps of telecom engineers. "There is a hierarchy. The Parisian schools are always more prestigious than the schools of the provinces." Interview with a senior civil servant, tape 12, Paris, May 27, 1997.

18 Association des ingénieurs de télécommunications, December 1995, p.22.
specific influence over policymaking, which was not possible in the fragmented and adversarial system of the United States.

8.2 Contributions to the literature: What have we learned?

This research project set out to answer two set of questions: about the influence of experts and about the validation of expertise in the political sphere. The following is a summary of my answers to these questions, based on my study of telecommunications policymaking in the United States.

Relating to recognition, this research suggests a number of criteria used by policymakers to select experts to participate in the policy process as valid advice providers. Individuals must show formal credentials in the dominant field, in this case, law or economics. The selected experts will also have extensive publications, experience in the public sector and the capacity to translate their expertise in clear policy terms. Their policy views won’t be completely at odds with those of the policymakers inviting them, as their authority will often be used to legitimize the policymakers’ positions. Finally, in their selection of experts, policymakers ensure that a certain diversity of views is represented, even though the range of differences can be quite limited.

This research also examined how groups of experts compete to become the dominant providers of advice and sanctioned experts in a policy sector. Strategies of professionalization and, more importantly, of boundary-work are the main tools at the disposal of experts to establish and maintain their authoritative status in the political arena. The group which is the most effective in using its resources can come to dominate the provision of expert advice in that policy area. In my case study, economic efficiency is
presented as a superior value to justify jurisdictional claim over telecommunications policy and has enabled American economists to dominate this sector.

The theoretical perspective I adopted to approach the process of recognition is strongly based on literature from sociology, which has scrutinized similar processes in other social settings such as the workplace. Cross-disciplinary fertilization is a sensible way to first approach recognition of experts in the political arena, as political science has not examined this question thoroughly. The preliminary findings of this research show that this theoretical approach to recognition is fruitful. By evaluating both the level of professionalization and the use of boundary-work, one can build a robust explanation of how a group of experts come to be legitimate advice providers. Obviously, the boundary-work operated by different groups will vary from one instance to another. In some cases, no one group may come to be dominant in a policy area, but two or more groups of experts will have to share the jurisdiction. Despite the variations, the analytical tools provided by the approach adopted here should allow the scholar to make sense of the jurisdictional battles s/he observes.

However, this approach would not be complete without an examination of the broader context within which recognition of experts takes place. Indeed, my research also pointed at the political nature of recognition. The dominant political discourse sets the limits of what is relevant advice and what is "hors-normes." The dominant discourse can evolve and experts can participate in this change. However, once a set of views and beliefs is established, experts operating outside these parameters will not be considered competent to provide policy advice.

Finally, it is important to recognize that the expert's cognitive authority does not only originate from rhetorical strategies such as boundary-work. Science, even recognized
as a construction and not solely as a transcription of the observation of nature, provides the best strategy available to understand natural phenomena and is a very useful tool when it comes to regulating hazardous products. If one envisages scientific facts as constructed by many levels of evidence and conclusions, it can be argued that the more superficial layer of the construction is easy to deconstruct. However, the core of the construction can become very solid. Science is not a matter of 'anything goes.' "In deconstructing the evidence, the experts will initially attack the weaker portions of the argumentative chain: this emphasis on the "soft parts" arises precisely because of the hardness of most of the scientific data" (Van Eijnhoven and Groenewegen, 1990, p.271). A completely relativist position would assume that even the core of a scientific statement can be revised, especially if a scientific paradigm shift, as described by Kuhn, occurs. My position is not as radical, as I recognize the constraints the natural world imposes on scientific activities. For example, social elements such as economic interests of the producers of asbestos will greatly influence the construction of scientific statements about the regulation of this product. However, research on absorption of high levels of asbestos fibers still shows that this product is hazardous and can cause lung cancer.

My case study does not deal with scientific controversies involving natural scientists such as chemists or biologists, as is often the case in the regulation of chemicals and hazardous products (see Brickman, Jasanoff and Ilgen, 1986). Instead of discussing the dangers of using a substance or a product, the debate in telecommunications policy is about the benefits of competition, of cost-based pricing, efficiency and equity in telecommunications access. Herein lies an important difference between experts from the natural sciences and those whose knowledge is based in social sciences. The knowledge and ideas offered by economists are less "constrained by the natural world." The scientific facts offered by them can more easily be deconstructed and challenged than the “hard core” of a natural scientific fact. My observations and conclusions about economists in
telecommunications policy can be extended to experts who are natural scientists, given the constructed nature of all formal knowledge. Indeed, the studies discussed in the first chapter have observed how natural scientists use strategies of professionalization and boundary-work to establish their authority. However, one could suppose that in policy sectors where only non-natural/technical scientists are involved, the battle for recognition is more vigorous, as closure is more difficult and temporary.

In addition to the issue of recognition, this research project also aimed at studying the influence of experts in the policy process. When are experts influential? What is their symbolic role? How do their views reach the policy sphere? The first question of this set has been scrutinized by scholars before, and my findings confirm the consensus in the literature. Economists' advice rarely has a direct impact on the specific content of new policies. Indeed, experts did not have a direct influence on the specific changes that took place in American telecommunications policy. When a new case study confirms previous findings, a body of evidence on a given question slowly builds. The value of my case study to the comparative politics literature on experts in policymaking is to contribute to in theory-building by enriching the existing collection of work on the question (Eckstein, 1975). By locating my research in a body of literature, this case study can be useful by refining existing views. My research adds to the literature by examining how influence is exerted and how economists remolded the framework within which policies in the telecommunications sector are elaborated. I suggested that they first need to gain pre-eminence within academia. Agents of formal knowledge need to be recognized by their peers before they can gain credibility outside academia. The hierarchy and systems of production of knowledge specific to each discipline structure this internal competition for recognition. Once a group of experts dominates this competition, it then positions itself in the government's units involved in policy planning and in the policy institutes aiming at influencing the policy arena. This is how their views reached the policymakers.

My case study also suggests limits to the influence of experts on the general climate of ideas. Indeed, I observed that the policy prescriptions of economic experts were only partially accepted and endorsed by policymakers. Liberalization of the
telecommunications industry gained support, but a complete deregulation or the abolition of a system of redistribution of resources (universal service) did not occur. What variables can explain that in the first case the preferences of policymakers converged towards the academics' recommendations, while they did not in the case of deregulation or universal service? The most likely variable is the political importance of these policies for members of Congress. The popularity of affordable, universal service among voters, especially in rural states, creates a very strong incentive for representatives of these regions to be very vocal and active in defending these programs. Their perception is that there would be high political costs to pay if one abolished the various universal service schemes.

My investigation of American telecommunications policy, especially when contrasted with the French case, confirmed the hypothesis put forward in the literature: national institutions influence policymaking and the role of experts. Indeed, the configuration of political institutions in the United States facilitated the early introduction of reforms in telecommunications. The fragmentation of the institutional configuration described in Chapter Two offers many points for expert recommendations to enter the policy process. The FCC, the Antitrust Division, the NTIA, the CEA, the Office of the President and the Vice-President, and the congressional committees were all involved in the policy process. This fragmentation of political authority and lack of hierarchy within the system permitted early policy experimentation. For example, in the 1970s, the FCC adopted regulations introducing competition, even though other actors such as Congress were very reluctant vis-à-vis such initiatives. Similarly, the opposition of the Reagan administration to the Antitrust Division's break-up of AT&T did not prevent such a policy change. The fragmentation of policymaking authority had another consequence. It made policy consolidation more difficult. The existence of multiple veto points within the legislative process is crucial to understanding why Congress was not able to adopt a law on telecommunications before 1996.
In the first chapter, I also set out to verify the hypothesis that experts have much less influence when the issues and the interest of parties involved have become more clear. What I have observed confirms this hypothesis. Under conditions of greater certainty and clarity, the role of experts is to legitimize the positions and the decisions of the politicians. Investigating the record of public hearings in the American Congress highlighted the legitimization role of expertise. Indeed, as the debate on reforming telecommunications regulation evolved and the policymakers understood more clearly what the issues were and their interests in this policy area, the main function of the expert witnesses invited to committee hearings was to provide support to policymakers’ views. An expert’s capacity to provide “intellectual credibility” is the most important criteria for being selected as an expert in the political arena.

The role of legitimization may be the most direct role experts have in the political arena. Obviously, policymakers and interest-groups can rely on other sources of support outside formal knowledge such as "grassroots" groups or public opinion. For example, the Bell companies received support from groups representing disabled people who believed that the RBOCs’ entry into long-distance would provide them with more specialized services. In democratic political regimes, one would indeed expect a variety of groups to express their views on policy issues. However, the nature of support provided by an expert differs from that provided by public in general. The opinions expressed by experts carry more weight, given the cognitive authority granted to formal knowledge.

The main contributions of this thesis focused on proposing answers to the questions of recognition of experts and refining the existing hypothesis on the influence of experts. Two secondary contributions should be highlighted. First, this research shows the need to understand the constructed nature of expertise in order to study its role in the policy arena. Studies adopting a positivist approach portray this relationship as the simple,
straightforward introduction of rationality in the irrational world of politics. This vision of science does not recognize that sound scientific principles are not only derived for the observation of nature but are also socially-constructed views, subject to competing claims by different groups of experts. These studies are concerned with a limited number of "policy improvement" questions (Smith, 1992; Weiss, 1992). For example, they examine how we can ensure that science remains independent of political bias and look at the best institutional arrangements to bring an expert's rationality into policymaking. These policy studies cannot consider questions such as the validation of expertise. The cognitive authority is taken for granted, as an a priori. It is assumed that agents of formal knowledge who are not represented in public debates are absent simply because they are not relevant or they are incompetent, reproducing the categories created by previous boundary work.

Such policy studies of expertise are not without interest, but they are limited in their pertinence. For instance, if one does not acknowledge the social nature of scientific activities, one's views on appropriate institutional arrangements for advisory committees are not going to take into account the need for flexibility and negotiation among experts and between experts and policymakers to reach an acceptable decision (Jasanoff, 1990). It also prevents one from seeing the social and political basis for expertise or leads one to dismiss them as abnormal cases of corruption or instances of the system malfunctioning, whereas these political and social criteria are inherent to the process of recognition. The influence of business funding on political discourse and, in turn, on the validation of a certain body of knowledge is not the aberrant case in a world of usually independent scientists. It is only one example of the impact of the dominant political discourse on the selection of legitimate advice providers. Similarly, by failing to recognize that cognitive authority has to be gained and acquired, like other political assets, through processes such
as professionalisation and boundary-work, studies that maintain a positivist approach cannot reflect on the competition for recognition.

One can also note that the adoption of a positivist approach has not only analytical consequences but also policy implications. The notion of the neutral, apolitical expert is a powerful one. The policy arena maintains that image of the unbiased expert who will bring rationality to the policymaking process. This vision of science is reflected in the institutions and representations of science. International politics offers us an excellent illustration of the endurance of this vision. For example, a recent multilateral trade agreement on food and safety regulation was based on the principle that such regulatory policy be underpinned by “sound scientific principles.” The question of how to determine what is ‘sound science’ is one that could benefit from constructivist insights.

Second, given its focus on the congressional policy process, this research contributes to the American politics literature, especially legislative studies. It confirms several observations already made about Congress, such as the multiplicity of sources of policy initiatives; the need for cooperation across party lines in order achieve the adoption of a bill, especially in the Senate; the importance of the committee chairmen; the increased ideological divide between the two political parties in the 1990s; and the competition between Congress and other institutions to take the lead in telecommunications policy. It also illustrates the influence that industry can have over the legislative process by taking a very “hands-on” approach, even drafting legislation and amendments for legislators.

This research shed light on experts in Congress. Their cognitive authority may carry into this political arena, but the rules of the game are slightly different. Additional criteria are used to judge which experts are relevant to policymaking. Moreover, their cognitive authority is mainly used to supply credibility to the policy options under
discussion. In congressional hearings, experts sometimes became real advisers to policymakers, but the legitimization role of expertise is dominant. I suggested that this reflects the symbolic nature of public hearings in the legislative process in general, not only of expertise. The democratic process itself gains legitimacy by resorting to such open forums. Committee hearings are often viewed by scholars as marginal to the policy process. And it may be true in terms of putting together the building blocks of a piece of legislation. However, the significance of hearings in symbolic politics should not be overlooked.

Moreover, my case study of American policymaking provided insights into the legislative activities of policy institutes and their analysts. We have seen that, at times, think tanks are very engaged and involved in the daily affairs of Congress: drafting legislation and directly advising Members. The involvement of the Heritage Foundation was especially revealing in terms of the openness of congressional offices to outside support. The study highlighted the conditions favorable to such engagement: ideological support (election of a quite conservative Republican majority) and resolution to take action. This instance may seem to deviate from our general proposition regarding the influence of experts on policymaking in the United States. However, the impact of Heritage and other conservative think tanks receded when confronted with the obligations of partisan politics and governance.

8.3 Concluding remarks: Economists and the State in the economy

The sociology of professions distinguishes three arenas where jurisdictional claims can be made (Abbott, 1988). First, in the legal system, groups of experts attempt to obtain formal control over a set of tasks or activities. Second, in the public opinion arena, groups of experts seek public legitimization of their activities and to build professional
images which can also pressure the legal system. In the third arena, the workplace, jurisdictions become more blurry. Indeed, formal boundaries established in the public and legal arenas often do not reflect the actual division of labor in the workplace.

This research investigated a fourth arena. In the political arena, experts do not seek legal or public recognition for their activities. Rather, they pursue recognition from policymakers to validate their body of knowledge as suited for policy advising. Of course, the success of a professional group in the other arenas can influence recognition in the political arena. The status established by a group of experts in the legal system, in the public's eyes and in the division of labor grants them authority on which the agents of formal knowledge build to be recognized by policymakers. Experts are not a monolithic group of actors. They can be differentiated on the basis of their body of knowledge, methods, values etc., and they actually use these differences to promote themselves, to build a jurisdiction over which they are recognized as the legitimate providers of expertise.

Being invited to testify as an expert witness, to join an advisory group or to serve on a commission of inquiry are some of the concrete forms of recognition by policymakers. The hiring of experts by governmental bureaus also demonstrates the recognition of a group's formal knowledge as relevant to policymaking. Once they are included in the policy process, experts can influence the elaboration of public policies. Thus, when the new economics of regulation became recognized as the body of knowledge relevant to devising policies in the telecommunications sector, it affected what was considered a possible, feasible and beneficial policy, and it influenced what was considered the problem policy aims to solve. It is at this level that experts can be the most influential in policymaking.
The experts who were central to my inquiry, economists, have and will continue to have a singular role in the political arena. I have discussed in the previous chapter how, over the last decades, economists' jurisdictional claims have become increasingly imperialist. In the academic world, economists now apply their methods, procedures and ideas to many different disciplines. Economic concepts are now found in legal scholarship, psychology, political science and sociology. The expansionist nature of economics in the political arena is even more crucial. The rise of economists as the dominant providers of expertise in telecommunications is not a unique occurrence. Economists have become increasingly important, in many cases dominant, in a variety of policy areas. They have, of course, been dominant in sectors traditionally defined as economic policy: monetary policy, fiscality, trade issues and so forth. But their influence now extends beyond these traditional domains; for instance, economic analyses are now included in the setting of environmental standards and environmental policy is not monopolized by environmental scientists anymore. The same can be said about economists' intervention in health policy in the United States and in many other policy sectors.

One can speculate that the rise of economists in the political arena is based on a general jurisdictional claim. A priori, it seems unlikely that economists claimed jurisdiction over new policy sectors one by one, operating boundary-work on a different basis each time. It seems more probable that one underlying claim to competency is at work. In the previous chapter, I suggested that boundary-work based on a claim of superior techniques or methods of analysis could be at the foundation of the rise of economists in the political arena. For instance, cost-benefit analysis appears to be a central tool for claiming jurisdiction over a wide range of policy sectors. The resort to quantitative methods in general can also be seen as a powerful tool for boundary-work. In
a wishful and almost prescient passage, George Stigler discussed the importance of quantitative methods for economics:

The age of quantification is now full upon us. We are armed with a bulging arsenal of techniques of quantitative analysis, and of a power -- as compared to untrained common sense-- comparable to the displacement of archers by cannons ... The desire to measure economic phenomena is now in the ascendant ... It is a scientific revolution of the first magnitude ... I am convinced that economics is finally at the threshold of its golden age-- nay, we already have one foot through the door. The revolution in our thinking has begun to reach public policy, and soon it will make irresistible demands upon us. It will become inconceivable that the margin requirements on securities markets will be altered once a year without knowing whether they have even a modest effect. It will become impossible for an import-quota system to evade the calculus of gains and costs. ... Our expanding theoretical and empirical studies will inevitably and irresistibly enter the subject of public policy, and we shall develop a body of knowledge essential to intelligent policy formulation. And then, quite frankly, I hope that we become the ornaments of democratic society whose opinions on economic policy shall prevail (Stigler, 1965, pp.16-17).

We could also suggest that the imperialistic tendencies of economics in the academic world and the political arena are caused by a redefinition of the discipline and what is appropriate economic research. The discipline is not defined anymore as the study of economic systems but as the "science of human choice in a world in which resources are limited in relation to human wants" (Posner, 1972, p.1). Based on this broad view of its role, economics knows few jurisdictional boundaries.\(^\text{19}\) The vocal advocates, such as Gary Becker and Richard Posner, of the expansion of economics into new academic and policy sectors base their jurisdictional claim not only on the definition of what is the field

\(^{19}\) The expansion of the cognitive authority of economics into contiguous (and not-so-contiguous) sectors apparently contradicts a second trend. This trend consists in "a narrowing of professional interest to more formal, technical, commonly mathematical analysis. This more formal analysis tends to have a greater generality. It may say less, or leave much unsaid, about the economic system but, because of its generality, the analysis become applicable to all social systems" (Coase, 1994, p.42).
of study of economics, but also on the premise that the economic approach is superior to the other available social theories. More specifically, the treatment of humans as rational utility-maximizers is presented as a more powerful theory to understand and handle social problems. Obviously, in the academic arena, competing claims from other social sciences suggest that theories developed to understand the economic system cannot be used to understand other social systems. The process of recognition is almost always a competitive one; the attempt of a group of experts to intrude into new territory never goes unchallenged.

Another issue that deserves more attention is what type of knowledge economics brings into the political arena. Some of the economists met during this research confirmed that what economic experts actually bring into the policy process is far removed from the complex modeling and formal analysis taking place in the universities (Nelson, 1987). The economics used in policymaking is often limited to advocacy of greater use of market mechanisms. Nevertheless, economists based their jurisdictional claims in the political arena on their mastery of sophisticated quantitative techniques and on their formalized general analysis. This disconnect between the formal knowledge produced by experts and

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20 An economic advisor to President Kennedy elaborated in those terms: "The confidence of economists' policy recommendations is essentially ideological: it rests on their commitment to the competitive market as an ideal, and the consequent belief that any step in the direction of the ideal is desirable. The role of the economist in policy formation is almost diametrically opposite to that envisaged by formal theory of policymaking ... He functions primarily as a propagandist of values, not as a technician supplying data for the pre-existing preferences of the policy makers. Some of his propaganda is directed at those participants in political decision-making to whom the advisers are directly responsive, aimed at shaping their values in the direction of the adviser's own. Much of it is directed through his political superiors to other participants in the political process- including the general public- and the adviser become, in fact, suppliers of arguments and briefs which seek to gain wider support for economists' political values" (Kaysen, 1968, p. 82-83).
the knowledge actually used in the political arena is not unique to economists or to the political arena. For instance, in the workplace, medicine exercises jurisdiction over a broad range of areas where it does not provide the service but the abstract model for action (Abbott, 1988). However, Abbott warns that "no profession can stretch its jurisdiction infinitely. For the more diverse a set of jurisdictions, the more abstract the binding ideas, the more vulnerable they are to specialization within and to diffusion to the common culture without (Abbot, 1988, p.88). For now, one can only speculate that his observations also apply to the political arena.

Despite the central role economic expertise came to play in policymaking in many countries in the last decades, very little research has actually be undertaken on that topic. In the same way that the history of science has neglected the history of economics (Schabas, 1992), the sociology of science has produced very few works that analyze the development of the discipline: Coats provides some descriptive information on the economics profession and Whitley (1987) a more analytical portrait of the discipline. My research aimed at examining the competition for recognition and therefore did not focus exclusively on economic experts. This is a real gap in the literature on science and expertise.

In the political arena, the 1980s and the 1990s were a period of change regarding the intervention of the State in the economy of most industrialized countries, including the United States. The State withdrew or at least reduced its intervention in a variety of sectors and transformed its instruments of intervention in order to become less "intrusive" in the economy. For example, the control of national governments over trade became increasingly weaker through the negotiation of regional agreements such as NAFTA and the European Common Market, as well as multilateral trade agreements. These new
frameworks created institutional structures limiting the intervention of the State to prevent import or encourage exports. Not only are governments increasingly using fewer tariffs or non-tariff barriers, but now a whole range of economic policies are considered possible barriers to international trade.

The lesser involvement of the State in the economy can also be witnessed in the cuts in public spending or in the relative decrease in public sector expenses and workforce in many industrialized countries. Privatization of State-owned corporations became very frequent in the 1980s and 1990s. A shift from Keynesian to monetarist macroeconomic policies and toward less redistributive tax policies also took place in this period. Deregulation and liberalization of industries were part of this movement away from State intervention and toward greater reliance on market mechanisms. Obviously, this movement knows important national variations and should be balanced with the persistence of the State's intervention in many sectors. Nevertheless, it is important to understand that the changes in telecommunications policy discussed here are part of a more general trend of the diminution of State involvement in economic affairs.
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