Does Local Government Autonomy Promote Fiscal Sustainability?
Lessons from Illinois’s Home-Rule Municipalities

Matthew Walshe

By Matthew Walshe
About IMFG

The Institute on Municipal Finance and Governance (IMFG) is an academic research hub and non-partisan think tank based in the Munk School of Global Affairs and Public Policy at the University of Toronto.

IMFG focuses on the fiscal health and governance challenges facing large cities and city-regions. Its objective is to spark and inform public debate, and to engage the academic and policy communities around important issues of municipal finance and governance. The Institute conducts original research on issues facing cities in Canada and around the world; promotes high-level discussion among Canada’s government, academic, corporate, and community leaders through conferences and roundtables; and supports graduate and post-graduate students to build Canada’s cadre of municipal finance and governance experts. It is the only institute in Canada that focuses solely on municipal finance issues in large cities and city-regions.

IMFG is funded by the Province of Ontario, the City of Toronto, Avana Capital Corporation, Maytree, and TD Bank Group.

Author

Matt Walshe is a Ph.D. candidate in the Department of Economics at the University of Toronto. He was the 2017–2018 recipient of the Blanche and Sandy Van Ginkel Graduate Fellowship in Municipal Finance and Governance.

Acknowledgements

This research was presented at a seminar held by the Institute on Municipal Finance and Governance at the University of Toronto on May 3, 2018. The author wishes to thank the seminar participants for their valuable feedback. Thanks also to Enid Slack, Selena Zhang, Adam Found, and Richard Bird for their helpful comments on an earlier draft of this paper. The author is responsible for any remaining errors and omissions.

Matthew Walshe

Abstract
Since the implementation of its 1970 Constitution, Illinois has granted home rule to any municipality with a population exceeding 25,000 and allowed municipalities below that population threshold to adopt home rule by referendum. This paper studies the question of whether the local government autonomy conferred through home rule promotes fiscally sustainable policies. A difference-in-differences estimation shows that home rule enlarges the public sector but improves operating surpluses. There is no evidence that home rule causes an increase in the debt burden, although it does cause a marked substitution of general obligation bonds for other forms of debt instruments.

Keywords: Local government autonomy, fiscal sustainability, home rule, fiscal institutions, tax and expenditure limits, debt limits, municipal finance

JEL Codes: H11, H70, H71, H72, H73, H74

I. Introduction
Tasked with ensuring basic service provision to households within their jurisdictions, local government officials make decisions that directly affect the quality of life of their constituents. Decisions concerning sanitation, sewerage, public transit, fire and police protection, and a growing list of other services regularly fall within the purview of local government. Local officials, therefore, are responsible for a plethora of thankless and unnoticed activities that become remarkable only when they are interrupted.

Like the households they serve, local officials are optimizing subject to myriad constraints, most notably those that arise directly from the composition of the electorate. Expenditure needs are a function of the demographic and socioeconomic features of the population. These same features largely determine a community’s capacity to generate revenue and therefore influence the extent to which public services can be financed with locally sourced funds (Hendrick 2004). Furthermore, resident-voters expect that their underlying political ideologies, insofar as they are expressed in their preferences, will be reflected in the taxation and expenditure package made available to them (Chapman 2003). Over the long term, officials’ policy choices will attract certain segments of the population, repel others, and ultimately alter the composition of the community. In the short term, however, these features of the electorate represent exogenous constraints on local government.

Local governments are further constrained by fiscal institutions that govern which policies are permissible and what types of procedural obstacles must be overcome to effect policy change. Yusuf et al. (2012) identify three categories of fiscal institutions that are common at the local level of government: tax and expenditure limits, debt limits, and debt restrictions.\(^1\) While municipal governments throughout the United States may self-impose institutional constraints through, for instance, city charter amendments or local ordinances (Brooks, Halberstam, and Phillips 2016), these constraints are more commonly imposed by state governments on their constituent municipalities. In fact, only eight states do not impose some form of municipal tax and expenditure limit (Mullins and Wallin 2004), and only two states do not place a ceiling on municipal debt (Hill Jr. 1993).

The argument in favour of fiscal institutions recognizes the inadequacy of voting, either at the ballot box or with one’s feet, to ensure government

\(^1\) Debt limits are defined as the maximum amount of debt that a local government can issue, often expressed as a percentage of assessed property value. Debt restrictions specify the procedures to be followed in order to issue debt. An example of the latter is a referendum requirement for general obligation bond issuance.
accountability. Politicians are not necessarily benevolent welfare maximizers, but may derive private benefit from maximizing the size of the budget (Brennan and Buchanan 1979) or from disproportionately accommodating the preferences of special-interest groups (Grossman and Helpman 1996). If these decisions produce policies that deviate from the will of the median voter, the electorate can express its discontent through the electoral process (Black 1958; Downs 1957) or by leaving the jurisdiction entirely (Tiebout 1956). Of course, even when there is robust political competition – which is far from assured (Trounstine 2009) – elections are infrequent and reduce complex policy platforms to binary decisions (Gillette 2008). Leaving a municipality, moreover, is expensive, and requires that prospective migrants identify a preferred district that meets their expectations. Thus, resident-voters may view the limits imposed by fiscal institutions as valuable supplementary insurance against government excess.

The opposing argument maintains that fiscal institutions do not necessarily reflect current preferences, and that they may have become superfluous or even harmful. Most state-imposed municipal tax and expenditure limits, for example, were enacted in the late 1970s and early 1980s, during the tax revolt initiated by California's Proposition 13 (Mullins and Wallin 2004). Many 21st-century residents did not partake in the decisions to implement these limits but are nevertheless affected by them. To the extent that these limits have had a deleterious effect on budgetary solvency, as the empirical work of Jimenez (2018) concludes, one can argue that they impose negative fiscal externalities. Another criticism is that debt limits, whose origins extend even further back than those of tax and expenditure limits, may have outlasted their utility. With today’s improved standards for financial reporting and a liquid secondary market for municipal bonds, market-imposed discipline may have supplanted the role once played by institutional limits on borrowing. Relative to fixed and arguably arbitrary institutional limits, credit markets can be a more dynamic and flexible mechanism for enforcing responsible borrowing practices (Gillette 2008).

Whether institutional constraints are desirable is a debate that may alternatively be framed as one over the merits of local government autonomy. This paper contributes to this debate by empirically analysing the effects of local government autonomy on several outcomes, including the size of government, the own-source revenue mix, and fiscal sustainability. Despite some variation in its precise definition, the last of these outcomes “reflects the adequacy of available revenues to ensure the continued provision of the service and capital levels that the public demands” (Chapman 2008: S115).

Before proceeding with the empirical analysis, local government autonomy is defined in Section 2, which also includes a brief review of the consequences of enhancing autonomy.

In order to draw inferences about the effects of enhanced autonomy, there must be some objective criteria to determine whether a unit of local government possesses more or less of it. The approach taken in this paper is to use for this purpose the presence or absence, respectively, of home rule. As described in
Section 3, home rule, broadly construed, is “any power of self-government that may be conferred upon a city, whether the grant of such power be referable to statute or constitution” (McBain 1916: v). Previous research on the topic demonstrates that home rule is not a singular concept; its practical implications depend crucially on the state government in question. Since the municipal governments of Illinois serve as the units of analysis in this paper, much of this section is devoted to understanding how Illinois’s particular brand of home rule confers on its constituent municipalities an additional degree of autonomy.

As a prelude to the empirical analysis, Section 4 compares Illinois’s home-rule and non-home-rule units of government according to various demographic, socioeconomic, and fiscal outcomes. Of primary importance are three quantitative indicators of fiscal sustainability: the operating surplus, the net position, and the debt burden, all of which are defined in this section.

Whereas Section 4 is intended to be purely descriptive, Section 5 draws causal inferences about the effects of home rule on several outcomes of interest. A difference-in-differences empirical method is used to exploit more than 50 instances of non-home-rule-to-home-rule transitions that occurred between 2000 and 2016. The analysis concludes that home rule generates a $60-per-capita improvement in the operating surplus, resulting from a large increase in own-source revenue and a smaller increase in operating expenditure. Furthermore, the revenue increase derives mainly from local sales taxes, while dependency on the property tax is reduced or unchanged. Finally, there is no evidence to suggest that home rule has a significant effect on the total debt burden, although it does have a marked effect on the composition of debt.

In summary, the results in this paper support the notion that autonomy confers fiscal health benefits. At the very least, there is no evidence of latent profligacy among municipal governments checked only by a paternalistic state-local relationship. Section 6 summarizes the results and discusses their implications for externally imposed fiscal institutions.

2. Local Government Autonomy
Simply stated, autonomy is used synonymously with discretion; that is, a local government’s autonomy derives from its ability to “engage in activities as it sees fit, free from constraints imposed by [higher levels of] government” (Wolman et al. 2008: 377). This definition includes the concept of fiscal autonomy as used by Slack (2017) to describe discretion over the bases and rates of taxation, and also encompasses the ability to legislate, regulate, and enter into service agreements and partnerships.

Research on this topic highlights several benefits associated with enhancing local government autonomy. Geys, Heinemann, and Kalb (2010) demonstrate that

---
2 Wolman et al. (2008) establish a conceptual framework for the autonomy of local government systems, which comprises three elements: importance, discretion, and capacity. Although the element of discretion is most relevant in this study, the others also extend meaningfully from the system to unit level.
the positive association between voter involvement and public-sector efficiency is enhanced by fiscal autonomy. Evidence also links enhanced autonomy with reduced inter-regional disparities in revenue-raising capacity (Blochliger and Campos 2011). Although this is not a demonstrably causal relationship, it is argued that autonomy – especially regarding discretion over tax policy – permits small, peripheral municipalities to effectively engage in inter-jurisdictional competition with larger cities for which agglomeration economies confer a natural advantage. Lastly, charter-form governance improves fiscal health (McDonald III 2015) and responsiveness to local preferences (Bunch 2014).

These and other studies that attempt to establish a relationship between local government autonomy and fiscal outcomes must first confront the challenge of meaningfully quantifying autonomy. This is no trivial matter, as another strand of the literature attests (Ladner and Keuffer 2018; Ladner, Keuffer, and Baldersheim 2016; Smith and Spicer 2016). In many instances, attempts to draw inter-regional or international comparisons between cities are complicated by having to account for the disparate institutional environments in which they operate. Moreover, various dimensions of autonomy are not perfectly correlated. One city might have greater discretion than another with respect to levying its property tax but fewer revenue-generating instruments at its disposal. Collapsing several dimensions of autonomy into a single index is empirically expedient, but much could be sacrificed in the process (Jacob and Hendrick 2012).

This paper delicately sidesteps much of this complexity by narrowing its focus to municipal governments in the state of Illinois. The cost of this approach is that the results presented here are generated from a highly restricted set of governmental units and are therefore not immediately generalizable. This sacrifice in external validity is made for the benefit of parsimony, in that the definition and measurement of autonomy is reduced to a binary criterion: the presence or absence of home rule.

Home rule is described in the next section, along with Illinois’s particular brand of home rule, which has been described as “one of the most liberal found in any state constitution” (Cole and Gove 1973: iii). Of particular importance is the way in which Illinois’s home-rule provision exempts municipal governments from several institutional constraints that ostensibly promote fiscal prudence.

3. Municipal Home Rule in Illinois

Municipal corporations are often characterized as creatures, creations, or tenants-at-will of the state legislature. Whatever the term, it describes the subordinate role of the municipality in the state-local relationship. In the absence of any statutory or constitutional provisions to the contrary, the state legislature has the power to create and destroy a municipality, to define its organizational form, and to specify which functions it is permitted or required to perform (Sandalow 1963).

3 See Iowa Supreme Court Justice John F. Dillon’s opinion in City of Clinton v. Cedar Rapids and Missouri River Railroad Company (1868).
Any distribution of a state’s plenary power to its constituent municipalities may be defined as conferring an additional degree of home rule. This definition intentionally places the concept of home rule on a continuum to reflect its interstate variations. The definition is also broad, such that 46 states are said to provide some form of municipal home rule. As the 36th state to grant home rule, Illinois was a late adopter (Rooney 2002), but its “liberal construction model” of home rule (Krane, Rigos, and Hill Jr. 2001: 13) was innovative for the discretion it afforded qualifying municipalities.

Of the many innovations effectuated by Illinois’s 1970 Constitution, the most consequential to local government was the introduction of home rule (Baum 1972). This constitution automatically confers home rule on municipalities with a population exceeding 25,000 and allows municipalities below that threshold to adopt home rule by referendum. Prior to the implementation of the 1970 Constitution, all municipal governments were subject to Dillon’s Rule; that is, their powers were limited to those expressly granted to them by the state and to those necessarily implied therefrom. While this rule remains operative for non-home-rule units of government, the home-rule provision inverts the presumptive powers granted to home-rule units, which are permitted to “exercise any power and perform any function pertaining to [their] government and affairs,” subject only to explicit limitations.

It would be neither feasible nor economical to provide an exhaustive account of the ways in which home-rule and non-home-rule units differ, in part because local officials continue to make novel use of home-rule powers, and courts continue to adjudicate on the legitimacy of these innovations. Nevertheless, this section highlights some important dimensions on which they contrast and identifies which fiscal institutions are effectively repealed by home rule. This provides some necessary background information on home rule and guides the focus of the empirical analysis to follow.

Tax and expenditure limits take many forms, though one of the most common types is statutory limits on property tax rates (Anderson 2006). These may be subcategorized as either general or specific rate limits. General rate limits typically set a single upper bound on the ratio of aggregate property tax extensions (property taxes billed) to assessed property value, while specific rate limits vary depending on the purpose for which property taxes are levied. In Illinois, where the state government imposes specific rate limits on its constituent taxing districts, a non-

4 According to Krane, Rigos, and Hill Jr.’s (2001) compendium of home rule, only Alabama, Hawaii, Nevada, and New Hampshire offer no form of municipal home rule.
5 Iowa Supreme Court Justice John F. Dillon articulated his philosophy of municipal governments in his Commentaries on the Law of Municipal Corporations (1911).
6 1970 Constitution of Illinois; Article VII, Section 6(a).
home-rule municipality faces a 0.15 percent limit on funding for both police and fire protection, a 0.075 percent limit on funding for park expenditures, and many other rate limits specified in state statute. Importantly, home rule units are exempt from all these limits.

Whether general or specific, rate limits alone cannot fully protect residents from burdensome tax liabilities. In an environment of robust economic growth and rapidly increasing assessments, property tax extensions can be increased just as rapidly without coming up against a rate limit. Indeed, the non-binding nature of these limits (Joyce and Mullins 1991) likely provided the impetus for Illinois's Property Tax Extension Limitation Law (PTELL), which, in addition to maintaining the rate limits, specifically restricts the annual growth rate of extensions to the lesser of 5 percent or the rate of inflation. As with the statutory rate limits, home-rule units were, and continue to be, exempt from the PTELL.

When the PTELL was passed in 1991, it applied only to non-home-rule taxing districts within the five Collar Counties: DuPage, Kane, Lake, McHenry, and Will. In 1995, it was extended to Cook County. In the following year, the state passed enabling legislation that allowed counties to adopt the PTELL by referendum; 33 successfully did so between 1996 and 2002, but none thereafter. Dye and McGuire (1997) studied the effects of this limit, and estimated that it had reduced the growth rate in municipal property tax revenue by roughly 5 percent. A follow-up study by Dye, McGuire, and McMillen (2005) demonstrated that its effect had strengthened over time.

Related empirical work supports these findings. Most state-imposed tax and expenditure limits restrict some element of the local governments' property taxing authority, and they have proven to be largely effective in reducing the level and growth of property tax revenue. Controversy remains, however, regarding whether tax and expenditure limits successfully limit total revenue.

Preston and Ichniowski (1991) used a panel dataset of 1,368 U.S. municipalities for the 1977–1986 period, and concluded that all types of tax and expenditure limits reduce the growth of both property tax levies and total municipal revenue. Most effective, according to their study, are general property tax rate limits accompanied by limits on assessment increases. Shadbegian (1999) studied 2,955 U.S. counties between 1962 and 1987, addressing the potential endogeneity

7 The Illinois Department of Revenue publishes these rate limits in its Illinois Property Tax Rate and Levy Manual.

8 So called because they form a geographic collar around Cook County, the most populous county in the state.

9 The PTELL is currently operative for 39 of Illinois’s 102 counties, which, according to the 2010 Decennial Census, account for 80.6 percent of the state’s population.
of tax and expenditure limits using the success rate of citizen initiatives as an instrumental variable. He concluded that tax and expenditure limits reduce own-source revenue, and that the magnitude of this effect increases with the stringency of the limits.

More recently, Sun (2014), who likewise addressed the endogeneity question with two-stage least squares estimation, found that tax and expenditure limits may have the unintended consequence of enlarging the public sector. Her analysis of 724 of the largest U.S. cities shows that tax and expenditure limits reduce property tax revenue but produce a larger aggregated increase in other revenue streams, thereby increasing per-capita own-source revenue overall.

These and other studies converge on the conclusion that local governments affected by tax and expenditure limits offset lost property tax revenue with unrestricted forms of revenue. In Sun (2014), this effect is evidenced by large increases in revenue from sales taxes, income taxes, and user charges. The literature also documents a tendency for state transfers, fees, and user charges to at least partially offset the decrease in property tax revenue (Hoene 2004; Johnston, Pagano, and Russo Jr. 2000; Shadbegian 1999; Skidmore 1999). If the work of Blom-Hansen, Baekgaard, and Serritzlew (2014) is any indication, this phenomenon is not unique to the United States. They studied a tax and expenditure limit imposed on Danish municipalities, and found that, because of offsetting increases in central government transfers, it has had only “limited success in reducing the size of local government” (Blom-Hansen, Baekgaard, and Serritzlew 2014: 79).

Just as tax and expenditure limits induce changes in the composition of revenue, there is evidence that debt limits induce changes in the composition of debt. Specifically, since debt limits often apply only to general obligation bonds, affected governments might circumvent the limit by raising funds using revenue bonds and other forms of non–general obligation debt. Farnham’s (1985) analysis of 2,087 U.S. municipalities showed that, in addition to reducing the overall stock of debt, the most stringent state-imposed debt limits lead municipalities to make this type of substitution. Nice (1991) reached a similar conclusion in his state-level analysis, although he found that debt limits have a greater influence on the choice of debt instruments than on the level of borrowing.

10 Since tax and expenditure limits are often introduced through citizen-initiated ballot measures, it is possible that limits are imposed by jurisdictions with strong aversion to tax and expenditure increases. Endogeneity bias exists if it is not the actual limits, but the population insisting upon them, that generates the observed effect. If the success rate of citizen initiatives (of all types) is correlated with the presence of tax and expenditure limits but uncorrelated with taxation and expenditure policies, then the relevance and excludability conditions of the instrumental variable are satisfied.

11 General obligation bonds are secured with the full taxing power of the issuing government. Revenue bonds are secured through a specific stream of revenue. The latter carry more risk and therefore offer a higher rate of interest.
These results are relevant here because Illinois’s non-home-rule municipalities face a statutory debt limit of 8.625 percent of equalized assessed value, but many types of non-general obligation debt do not count against the limit. Moreover, non-home-rule units face a political constraint in that general obligation bonds secured through an ad valorem tax must be approved by voter referendum. As for home-rule units, apart from a restriction against issuing debt payable from ad valorem property taxes beyond a 40-year maturity, they face only the constraints imposed by credit markets.

It should now be clear that municipalities that adopt home rule are electing to avoid institutional constraints that ostensibly promote fiscally sustainable policies. Understandably, this fact has been the focus of home-rule critics, who tend to view home rule merely as a vehicle to bypass limits on borrowing and property taxation. Home-rule advocates, on the other hand, contend that it allows a municipality to diversify its tax base, reduce the property tax burden, and export some of the tax burden to non-residents. A common way to achieve these goals is through the adoption of a local sales tax.

In recent decades, local sales taxes have become an increasingly important source of revenue for local governments in the United States (Afonso 2017a). Empirical work on these taxes shows that they do reduce property tax burdens (Afonso 2014, 2015; Jung 2001), but their diversification benefits are less clear. It is often taken for granted that diversifying the tax base improves revenue stability but, as Afonso (2013) clarifies, this effect is not guaranteed. In fact, reducing dependence on the highly inelastic property tax in favour of a relatively elastic sales tax may increase revenue volatility. This is not necessarily problematic, as the elasticity can help “insulate the government in a growing area from having to increase tax rates” (Mikesell 2013: 359). Of course, it may also exacerbate hardship during economic downturns (Afonso 2017b).

Non-home-rule units are not forbidden from levying a sales tax, although they face both political and fiscal barriers in doing so. On the political side, a non-home-rule municipal sales tax requires referendum approval, as well as subsequent referenda to approve any proposed rate increases. On the fiscal side, non-home-rule units may not exceed a maximum sales tax rate of 1 percent. Home-rule units, in contrast, may, through a local ordinance, adopt and increase the rate of a sales tax, with no limit on the rate that may be charged.

12 A property’s equalized assessed value (EAV), when multiplied by the sum of its taxing districts’ property tax rates, determines the owner’s property tax bill. The EAV is calculated by multiplying the property’s assessed value by an equalization factor provided by the Illinois Department of Revenue. The purpose of this equalization is to ensure that each property is assessed as close as possible to the statutory assessment level of 33.33 percent of fair cash value.

13 Estimates for the short-run income elasticities of the property tax and sales tax are 0.12 and 0.93, respectively (McCubbins and Moule 2010).
To conclude this section, it is worth emphasizing that the constitutional grant of self-governance to a municipality through home rule does not confer unbridled autonomy. The 1970 Constitution prohibits home-rule units from levying taxes “upon or measured by income or earnings or upon occupation,”14 without legislative authorization. It also contains provisions by which the state government may pre-empt home-rule authority.15

One notable instance of successful state pre-emption concerns sales taxation. Initially, home-rule units could choose both the base and rate of the tax. “The result was a pattern of local sales taxes that provoked opposition from state-wide merchants” (Banovetz 2002: 83). The 1991 intervention by the Illinois General Assembly centralized the administration of the tax and standardized the sales tax base. In its current form, municipalities that impose a sales tax choose only the tax rate; revenues are remitted to them by the state.

Home-rule units also are subject to the Truth in Taxation Law, which requires all taxing districts to publicize their intentions to levy property taxes in excess of 105 percent of the previous year’s aggregate extension. In essence, Truth in Taxation imposes a soft constraint (in the form of a disclosure requirement) where the hard constraint of the PTELL does not apply. Springer et al. (2009) found that the relative impact of hard versus soft constraints is not as we might anticipate. They studied county governments in Kansas before and after the state replaced an aggregate levy limit with its own Truth in Taxation Law, and found that property tax revenue, own-source revenue, and expenditure were higher under the hard constraint. The authors suggested that “the levy limitation sent perverse signals to local officials who may have automatically raised the levy as much as the law allowed in an effort to preserve greater fiscal flexibility” (Springer et al. 2009: 70).


The number of home-rule municipalities in Illinois has increased from the original 67 to today’s 215. While this figure represents less than 17 percent of Illinois’s 1,297 municipalities, more than 62 percent of the state’s population now reside within a municipal jurisdiction with home rule. As illustrated in Figure 1, home rule has penetrated every region of the state, especially the Chicago-Naperville-Elgin Metropolitan Statistical Area (MSA). So, it is not surprising that, relative to their non-home-rule counterparts, home-rule municipalities tend to be more urbanized. As indicated in the first row of Table 1, in the average home-rule unit,

---

14 1970 Constitution of Illinois; Article VII, Section 6(e).
15 Article VII, Section 6(g) states that a three-fifths vote of the General Assembly is required to limit a home-rule power when “not exercised or performed by the State.” Section 6(h) states that a simple majority vote of the General Assembly is required to make a home-rule power the exclusive jurisdiction of the state.
93 percent of the housing stock is situated within urban areas,\textsuperscript{16} compared with 33 percent for the average non-home-rule unit.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure1.png}
\caption{Spatial distribution of Illinois’s home-rule municipalities}
\end{figure}

\textsuperscript{16} According to the United States Census Bureau, \textit{urban area} refers to Urbanized Areas (UAs) and Urban Clusters (UCs), both of which are defined primarily based on residential population density. Because the density criterion is specified at the level of census tracts or census blocks, it is possible for an incorporated place to be only partly situated within an urban area. All territory outside urban areas is considered rural.
As for the remaining entries in Table 1, the differences between home-rule and non-home-rule municipalities are consistent with expectations, given this urban-rural division. As typically rural municipalities, non-home-rule units have higher rates of homeownership, smaller populations, lower population densities, older populations, and lower median household incomes.

Among the municipalities in the Chicago-Naperville-Elgin MSA (see Table 2), most of these differences are attenuated, yet preserved. The only exception concerns median household income, for which there is no statistical difference between home-rule and non-home-rule units. Table 3 shows that this similarity is largely attributable to municipalities that opted in to home rule by referendum. Relative to municipalities that automatically became home-rule units on the basis of population, opt-in home-rule units have an older, more affluent population, making them comparable on these dimensions to non-home-rule units.

Table 4 presents several fiscal outcomes for home-rule and non-home-rule municipalities within the Chicago-Naperville-Elgin MSA. Home-rule municipalities have a significantly larger public sector, as evidenced by their operating expenditures and own-source revenues, which exceed those of non-home-rule municipalities by an average of more than $350 per capita. Furthermore, local taxes constitute an average of 54 percent of own-source revenue among home-rule units, exceeding...
### Table 2: Socio-demographic statistics for municipalities in the Chicago-Naperville-Elgin MSA

<table>
<thead>
<tr>
<th></th>
<th>Home rule</th>
<th>Non–home rule</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of housing stock in urban areas</td>
<td>0.98</td>
<td>0.81</td>
<td>0.17***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.03)</td>
</tr>
<tr>
<td>Share of occupied housing that is owned</td>
<td>0.74</td>
<td>0.81</td>
<td>-0.06***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.01)</td>
</tr>
<tr>
<td>Population (thousands)</td>
<td>27.80</td>
<td>8.18</td>
<td>19.62***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(2.48)</td>
</tr>
<tr>
<td>Population density (thousands per km$^2$)</td>
<td>1.43</td>
<td>0.84</td>
<td>0.59***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.10)</td>
</tr>
<tr>
<td>Median age</td>
<td>37.90</td>
<td>39.13</td>
<td>-1.23*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.63)</td>
</tr>
<tr>
<td>Median household income ($thousands)</td>
<td>73.95</td>
<td>79.07</td>
<td>-5.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(3.71)</td>
</tr>
<tr>
<td>Number of observations</td>
<td>144</td>
<td>162</td>
<td>306</td>
</tr>
</tbody>
</table>

Notes: Columns 2 and 3 present mean values calculated using the 2010 Decennial Census. Column 4 presents the results of a two-sample t-test, allowing for unequal variance between the two comparison groups. Standard errors are reported in parentheses. The asterisks *, **, and *** denote statistical significance at a threshold of 5, 1, and 0.5 percent, respectively. Excludes the city of Chicago.

### Table 3: Socio-demographic statistics for municipalities in the Chicago-Naperville-Elgin MSA

<table>
<thead>
<tr>
<th></th>
<th>Automatic home rule</th>
<th>Opt-in home rule</th>
<th>Non–home rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of housing stock in urban areas</td>
<td>1.00</td>
<td>0.97</td>
<td>0.81</td>
</tr>
<tr>
<td>Share of occupied housing that is owned</td>
<td>0.73</td>
<td>0.75</td>
<td>0.81</td>
</tr>
<tr>
<td>Population (thousands)</td>
<td>48.67</td>
<td>14.52</td>
<td>8.18</td>
</tr>
<tr>
<td>Population density (thousands per km$^2$)</td>
<td>1.73</td>
<td>1.24</td>
<td>0.84</td>
</tr>
<tr>
<td>Median age</td>
<td>36.24</td>
<td>39.95</td>
<td>39.13</td>
</tr>
<tr>
<td>Median household income ($thousands)</td>
<td>68.76</td>
<td>77.24</td>
<td>79.07</td>
</tr>
<tr>
<td>Number of observations</td>
<td>56</td>
<td>88</td>
<td>162</td>
</tr>
</tbody>
</table>

Notes: Columns 2-4 present mean values calculated using the 2010 Decennial Census. Excludes the city of Chicago.
the non-home-rule average by 5 percentage points. Given that non-home-rule municipalities are subject to potentially binding property tax limits, their weaker dependence on tax revenues is consistent with findings in the literature.

<p>| Table 4: Fiscal outcomes for municipalities in the Chicago-Naperville-Elgin MSA |
|-----------------------------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th></th>
<th>Home rule</th>
<th>Non–home rule</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating expenditure ($ per capita)</td>
<td>1,169.93</td>
<td>809.11</td>
<td>360.82*** (49.37)</td>
</tr>
<tr>
<td>Own-source revenue ($ per capita)</td>
<td>1,113.16</td>
<td>744.76</td>
<td>368.40*** (47.00)</td>
</tr>
<tr>
<td>Local taxes, as a share of own-source revenue</td>
<td>0.54</td>
<td>0.49</td>
<td>0.05*** (0.02)</td>
</tr>
<tr>
<td>Operating surplus ($ per capita)</td>
<td>94.48</td>
<td>71.71</td>
<td>22.77 (16.09)</td>
</tr>
<tr>
<td>Net position ($ per capita)</td>
<td>3,230.94</td>
<td>3,253.10</td>
<td>-22.16 (312.06)</td>
</tr>
<tr>
<td>Ratio of total debt to revenue</td>
<td>1.00</td>
<td>0.80</td>
<td>0.21* (0.09)</td>
</tr>
<tr>
<td>Ratio of GO bond debt to revenue</td>
<td>0.54</td>
<td>0.18</td>
<td>0.36*** (0.05)</td>
</tr>
<tr>
<td>Ratio of other debt to revenue</td>
<td>0.46</td>
<td>0.61</td>
<td>-0.15* (0.07)</td>
</tr>
<tr>
<td>Number of observations</td>
<td>113</td>
<td>140</td>
<td>253</td>
</tr>
</tbody>
</table>

Notes: Columns 2 and 3 present three-year mean values calculated using the 2014–2016 annual financial reports. Column 4 presents the results of a two-sample t-test, allowing for unequal variance between the two comparison groups. Standard errors are reported in parentheses. The asterisks *, **, and *** denote statistical significance at a threshold of 5, 1, and 0.5 percent, respectively. Excludes any municipality whose three-year average own-source revenue per capita placed it below the 5th percentile or above the 95th percentile among all municipal governments.

The difference in local tax dependency could also arise from restrictions on sales taxation. Only 142 out of 1,082 non-home-rule municipalities (13.1 percent) levy a local sales tax, whereas 188 of 215 home-rule municipalities (87.4 percent) do so. In accordance with state law, none of the non-home-rule sales tax rates exceed 1 percent, although roughly half are levied at exactly the maximum. As depicted in Figure 2, slightly more than one-third of home-rule units with a sales tax have elected to exceed the 1 percent rate.

The operating surplus is the first of three fiscal sustainability metrics considered in this paper. It is calculated as total revenue minus operating expenditure, where the latter excludes capital outlays from total expenditure. Even for local governments subject to balanced-budget requirements, this measurement
provides a useful indication of whether current fiscal policies are sustainable, because realizations can differ significantly from plans (Gorina 2013). For Illinois’s municipalities, which do not face a balanced-budget requirement, it is especially meaningful. Municipal governments that consistently fail to finance operating expenditures with current revenues will have to resort to non-capital borrowing or disruptive adjustments to revenue and expenditure policies. In either case, the current fiscal policy would not be sustainable.

The second metric is the net position, which reflects “the extent to which a government’s past and current revenues have been sufficient to cover its past and current costs” (Plummer, Hutchison, and Patton 2007: 210). Net position is the sum of three components: net capital assets, restricted net position, and unrestricted net position. It complements the previous metric because municipalities that achieve operating balance by postponing necessary public

17 Illinois law (65 ILCS 5/8-2-6) does require a balanced budget from any municipality with a population exceeding 500,000. In practice, this applies only to the city of Chicago.

18 Net capital assets are equal to the original cost of capital assets, minus accumulated depreciation and related debt. Restricted net position is the value of net assets with limitations on their use. Unrestricted net position is the value of net assets that can be used for any purpose and, therefore, functions as “a reserve or hedge against adverse financial events” (Johnson, Kioko, and Hildreth 2012: 86).
infrastructure investments or by drawing down reserves are jeopardizing their long-term sustainability, and these actions will be reflected in a deterioration of their net capital assets or their unrestricted net position, respectively.

Lastly, the debt burden is calculated as the ratio of the principal value of outstanding debt to total revenue. This metric reflects “the extent to which future revenue is encumbered by the need to finance past spending” (Bird 2015: 17). Although a low debt burden may indicate underinvestment in public infrastructure or the market’s unwillingness to lend to the government, this paper adopts the convention of associating increased debt burdens with worsened prospects of fiscal sustainability. Indeed, Gorina and Maher (2016) found that high debt burdens predict future fiscal stress. To account for the possibility of substitution between restricted and unrestricted forms of debt, the debt burden is also disaggregated into the portions attributed to general obligation bonds and non–general obligation debt.

Regarding the operating surplus and the net position, there is little to separate home-rule from non-home-rule municipalities. In Table 4, we see that home-rule units have a higher operating surplus per capita and a lower net position per capita, but neither difference is statistically significant at conventional confidence levels. In contrast, there are significant differences in both the burden and composition of debt. The average home-rule unit carries a principal value of outstanding debt equal to a year’s total revenue, significantly greater than the non-home-rule average of 80 percent of total revenue. Moreover, the home-rule debt burden is more equally allocated between general obligation bonds and other types of debt, whereas the debt burdens of institutionally constrained non-home-rule units are markedly skewed in favour of non–general obligation debt.

For the most part, the preceding conclusions are maintained when home-rule municipalities are separated into automatic and opt-in types (see Table 5). Both opt-in and automatic home-rule units collect and spend significantly more than non-home-rule units and carry a larger debt burden. But automatic home-rule units have a higher operating surplus and a higher net position per capita, as well as a greater debt burden, amounting to 105 percent of a typical year’s total revenue, relative to opt-in home-rule units.

These statistics tell us a great deal about how home-rule and non-home-rule municipalities compare on various dimensions, but essentially nothing about the effects of home rule. Does it cause an increase in the size of government? If so, is this the result of being exempt from property tax constraints? Do home-rule units substitute general obligation bonds for other forms of debt? Does the autonomy conferred by home rule promote or undermine fiscal sustainability? These questions are addressed in the empirical research results.

5. Empirical Analysis
The units of analysis, Illinois’s municipal governments, are appropriate subjects for this empirical study for several reasons. First, the population threshold for
automatic qualification, as well as the ability to opt for home rule, produces cross-sectional variation in home-rule status. This variation is evident from Figure 1, which shows, at a single point in time, geographically contiguous home-rule and non-home-rule municipalities.

Second, since 1970, the number of home-rule units has increased by 148, an average of roughly three municipalities per year. This strong take-up adds a temporal element to the variation in home-rule status, as municipal governments make the transition from non-home-rule to home-rule units. Without this temporal variation, it would be difficult or impossible to separate the effects of home rule from a municipality fixed effect.\(^{19}\) Indeed, the quasi-permanency of fiscal and political institutions is one of the foremost empirical challenges researchers face when attempting to understand their effect on fiscal sustainability (Rose 2010).

Third, Illinois’s liberal form of home rule provides a “severe test” (Banovetz 2002: 84) of the consequences of relaxing constraints on local government. These

\(^{19}\) This term refers to features of a municipality, institutional or otherwise, that are either constant or very slow to change.

| Table 5: Fiscal outcomes for municipalities in the Chicago-Naperville-Elgin MSA |
|-------------------------------------------------|------------------|-------------------|
| | Automatic home rule | Opt-in home rule | Non–home rule |
| Operating expenditure ($ per capita) | 1,148.04 | 1,187.30 | 809.11 |
| Own-source revenue ($ per capita) | 1,093.23 | 1,128.98 | 744.76 |
| Local taxes, as a share of own-source revenue | 0.52 | 0.56 | 0.49 |
| Operating surplus ($ per capita) | 95.94 | 93.33 | 71.71 |
| Net position ($ per capita) | 3,349.19 | 3,137.09 | 3,253.10 |
| Ratio of total debt to revenue | 1.05 | 0.96 | 0.80 |
| Ratio of GO bond debt to revenue | 0.50 | 0.57 | 0.18 |
| Ratio of other debt to revenue | 0.55 | 0.39 | 0.61 |
| Number of observations | 50 | 63 | 140 |

Notes: Columns 2-4 present three-year mean values calculated using the 2014–2016 annual financial reports. Excludes any municipality whose three-year average own-source revenue per capita placed it below the 5th percentile or above the 95th percentile among all municipal governments.
three considerations, combined with a rich data set of annual financial reports, permit a data-driven analysis of the effects of local government autonomy.

The last two decades have been an especially active time for the take-up of home rule. Between 2000 and 2016, 68 municipal governments made the transition from non-home-rule to home-rule units. Employing a difference-in-differences estimation strategy, this study exploits these transitions to identify the effects of enhancing local government autonomy with home rule.

5.1. Data
The effects of home rule are evaluated for each of the fiscal outcomes listed in Table 6. Data for these dependent variables were procured from an online repository of annual financial reports maintained by the Illinois State Comptroller’s Office. These non-audited, self-reported statements are organized on the basis of fund accounting, which means that “resources are allocated to, and accounted for in, individual funds based upon the purpose for which they are to be spent and the means by which spending activities are controlled.”

For practical purposes, this means that there is no single operational definition of revenue or expenditure, as it depends which funds are included in the calculation.

To ensure that the conclusions are not sensitive to this feature of the accounting, results are reported using two approaches.

- The governmental approach adopts the definition of revenue and expenditure used by the Illinois State Comptroller’s Office in its Annual Financial Report Card. This approach considers only so-called “governmental activity” by restricting attention to the general fund, special revenue fund, capital projects fund, debt service fund, and discretely presented components fund.

- The entity-wide approach, as its name suggests, considers all funds, incorporating the government’s business-like activity, reflected by its enterprise fund, and its assets held in trust, as reported in the fiduciary fund.

The difference in sample means (see Table 6) shows that the distinction is not trivial. Outstanding debt is not split into funds, so the lower entity-wide debt burdens are purely a reflection of greater entity-wide total revenues. Also, business-like activity (e.g., ownership of a public utility company) is more likely

21 Component units are defined in Governmental Accounting Standards Board (GASB) Statement No. 61 as “legally separate organizations for which the elected officials of the primary government are financially accountable.” Financial data for these units are consolidated with those of the primary government when any of three conditions (appearing in paragraph 8a of the Statement) are satisfied; otherwise these data are reported in a discretely presented components fund.
22 By definition, assets held in trust are resources that cannot be used to support governmental or business-like activities. However, “governments may be responsible for providing resources to the plan and investing and maintaining those resources” (Mead 2001), as in the case of an employee pension plan.
to be supported with fees and user charges, which explains the lower entity-wide tax dependence. In each approach, adjustments for inflation were made using the Bureau of Labor Statistics’ Consumer Price Index. Per-capita adjustments, where necessary, use intercensal population estimates from the U.S. Census Bureau.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Governmental approach</th>
<th>Entity-wide approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>ownrev_{mt}</td>
<td>Own-source revenue ($ per capita)</td>
<td>583.26</td>
<td>1,086.93</td>
</tr>
<tr>
<td>opexp_{mt}</td>
<td>Operating expenditure ($ per capita)</td>
<td>690.22</td>
<td>1,191.98</td>
</tr>
<tr>
<td>opsurp_{mt}</td>
<td>Total revenue less operating expenditure ($ per capita)</td>
<td>43.33</td>
<td>66.28</td>
</tr>
<tr>
<td>taxshare_{mt}</td>
<td>Local tax revenue, as a share of own-source revenue</td>
<td>0.75</td>
<td>0.42</td>
</tr>
<tr>
<td>debtburd_{mt}</td>
<td>Ratio of principal value of outstanding debt to total revenue</td>
<td>1.46</td>
<td>0.75</td>
</tr>
<tr>
<td>goburd_{mt}</td>
<td>Ratio of principal value of outstanding general obligation bonds to total revenue</td>
<td>0.24</td>
<td>0.15</td>
</tr>
<tr>
<td>nogoburd_{mt}</td>
<td>Ratio of principal value of other outstanding debt to total revenue</td>
<td>1.22</td>
<td>0.60</td>
</tr>
</tbody>
</table>

Notes: Columns 3 and 4 present three-year mean values calculated using the 2014–2016 annual financial reports. Apart from the city of Chicago, the calculations include all 1,087 municipal governments that constitute the cross-sectional units of the main empirical analysis.

Conspicuously absent from the list of dependent variables in Table 6 is the net position per capita. This is unfortunate, but a government-wide statement of net assets was not part of required financial reporting until Governmental Accounting Standards Board (GASB) Statement No. 34. The statement was issued in 1999, but its requirements were phased in gradually. Governments with less than $10 million in annual revenues did not have to comply with these requirements until reporting periods beginning after June 2003. In effect, this means that it was not consistently reported statewide until fiscal year 2005.

The data set was constructed to be a perfectly balanced panel. Any municipal government that failed to file an annual financial report every year between 2000 and 2016 (inclusive) was removed from the sample. This means that municipalities that incorporated or disincorporated during the sample period are excluded. Moreover, municipalities with non-positive entries for own-source revenue or operating expenditure were removed from the data set. These exclusions produced
a balanced panel of 1,087 municipal governments, each of which submitted 17 annual reports.

Home-rule status is not accurately reported in the annual statements maintained by the State Comptroller’s Office, so an alternative strategy was pursued to identify transitions into home rule. This involved comparing the Illinois Municipal League’s current list of home-rule units to Banovetz’s (2001) list of home-rule units as of November 2000. Municipalities that appear in the former, but not the latter, were identified as potential home-rule transitions. Of the 1,087 cross-sectional units that appear in the data set, 55 met this criterion. For each of these 55 municipalities, it was then possible to corroborate the legitimacy, and identify the timing, of the transition to home rule.

In experimental parlance, the “treatment group” consists of these 55 municipalities that became home-rule units during the sample period, which are hereinafter loosely referred to as home-rule adopters. Figure 3 depicts these municipalities on a map, along with those whose home-rule status did not change. For illustrative purposes, the figure focuses on municipalities within the Chicago-Naperville-Elgin MSA, but this is not to suggest that the results to follow are based on a similarly restricted sample.

5.2. Method
Let us consider a simple pre-home-rule versus post-home-rule (PvP) comparison as a preliminary approach to estimating the home-rule effect. For each home-rule adopter, and for each dependent variable, this involves taking the difference between the post-home-rule outcome and the pre-home-rule outcome. The timing of home-rule adoption is staggered within the treatment group, so the pre- and post-home-rule eras do not coincide for all home-rule adopters. Nevertheless, these differences can be aggregated to produce a single point estimate for each dependent variable. Table 7 presents these preliminary estimates of the home-rule effect. The interpretation of the first numerical entry is that, using the governmental approach, own-source revenue was, on average, $159 per capita greater in the post-home-rule era than in the pre-home-rule era.

But consider Figure 4, which plots the median own-source revenue per capita among non-home-rule units that remained as such throughout the sample period. Even among non-adopting municipalities, we observe an inflation-adjusted increase of nearly $100 per capita over the entire sample period. Moreover, the influence of the business cycle is apparent, as the median rises and levels off during growth and recession, respectively. The PvP comparisons account for neither of

23 Available at https://www.iml.org/homerule-municipalities

24 Typically, the source of information was referendum results from a county clerk or a mention in a Comprehensive Annual Financial Report.

25 Loosely, because 13 of the 55 automatically became home-rule units simply as a result of reaching the 25,000 population threshold.
these phenomena and, therefore, potentially conflate the effects of home rule with those of general macroeconomic conditions that would have been experienced even without the transition to home rule.

If we could observe each home-rule adopter in two alternative scenarios, our task would be simple. In one, we would witness, on November 7, 2006, the residents of the village of Riverdale adopt home rule by a margin of 50 votes (1,383 to 1,333). From this, we would derive our first difference: the difference between Riverdale’s post-home-rule outcome and its pre-home-rule outcome. In another version of reality, 51 additional Riverdale residents, each adamantly opposed to home rule, would turn up to the polling station and tip the balance against home rule adoption. From this scenario, we would derive our second difference: the difference between Riverdale’s post-home-rule-referendum outcome and its pre-home-rule-referendum outcome. Taking the difference in these differences would
Table 7: Preliminary estimates of the effect of home rule
(pre-home-rule versus post-home-rule comparison)

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Governmental approach</th>
<th>Entity-wide approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>ownrev&lt;sub&gt;mt&lt;/sub&gt;</td>
<td>158.69*** (40.52)</td>
<td>242.19*** (50.38)</td>
</tr>
<tr>
<td>opexp&lt;sub&gt;mt&lt;/sub&gt;</td>
<td>110.03*** (29.04)</td>
<td>182.98*** (41.85)</td>
</tr>
<tr>
<td>opsurp&lt;sub&gt;mt&lt;/sub&gt;</td>
<td>56.78* (24.33)</td>
<td>66.54** (25.04)</td>
</tr>
<tr>
<td>taxshare&lt;sub&gt;mt&lt;/sub&gt;</td>
<td>0.05*** (0.01)</td>
<td>0.03*** (0.01)</td>
</tr>
<tr>
<td>debtburd&lt;sub&gt;mt&lt;/sub&gt;</td>
<td>0.18 (0.12)</td>
<td>0.12 (0.08)</td>
</tr>
<tr>
<td>goburd&lt;sub&gt;mt&lt;/sub&gt;</td>
<td>0.22** (0.08)</td>
<td>0.15** (0.06)</td>
</tr>
<tr>
<td>nogoburd&lt;sub&gt;mt&lt;/sub&gt;</td>
<td>-0.04 (0.10)</td>
<td>-0.03 (0.06)</td>
</tr>
</tbody>
</table>

Notes: Estimates are generated from regression equation (1) in the Appendix. The sample is limited to the 55 home-rule adopters, each of which has 17 fiscal year observations, to place the number of observations at 935. Standard errors are clustered at the level of the municipality and reported in parentheses. The asterisks *, **, and *** denote statistical significance at a threshold of 5, 1, and 0.5 percent, respectively.
produce the true effect of home rule for the village of Riverdale. Scaling up this procedure to include all home-rule adopters would thus generate home rule's Average Treatment Effect on the Treated.

In reality, only 1,333 residents voted against home rule, and Riverdale did become a home-rule municipality. The outcome in the second scenario is unrealized, unobservable, and, therefore, unmeasurable. The essence of the difference-in-differences (DiD) estimation strategy is to construct, using a comparison group, a plausible estimate of this counterfactual outcome. In this study, the 909 non-adopting non-home-rule units constitute this "control group." The collective outcome of these municipalities provides our best answer to the question: What would be Riverdale's post-home-rule-referendum outcome (and that of every other home-rule adopter) if it had failed to adopt home rule?

The DiD estimates have a causal interpretation, but only insofar as the control group represents a legitimate counterfactual scenario. Suppose, however, that municipalities adopt home rule only in response to severe fiscal stress. Further suppose that the null hypothesis is correct, such that home rule has no effect on fiscal sustainability. The DiD estimates would then lead us to conclude incorrectly that home rule has a detrimental effect on government finances, merely as a result of the inherent non-random decision to adopt home rule.

An ideal experiment (Angrist and Pischke 2008) would have municipalities randomly assigned to home rule throughout the sample period. But reality takes us far from this ideal, especially for opt-in home-rule units that must initiate, and receive majority support in, a home-rule referendum. For this reason, it is imperative to explicitly test whether the control group is likely to produce plausible estimates of the treatment group's counterfactual outcomes. To do so, we can perform a test of parallel trends within an event-study framework.

In the event-study framework, we can evaluate the effects of home rule over a time interval that begins two years prior to adoption. Detecting a statistically significant home-rule effect prior to home-rule adoption (in other words, detecting a treatment effect that precedes treatment) suggests non-parallel trends between the treated and controlled units of government: a strong indication that the latter provide an inappropriate substitute for the counterfactual outcomes. But if the trend in the dependent variable does not statistically differ between them in the pre-home-rule era, then a parallel trends assumption is warranted, and we can be more confident (but never certain) that our estimates have a causal interpretation.

5.3. Results
Tables 8, 9, and 10 present the estimated effects of home rule on own-source revenue, operating expenditure, and the operating surplus per capita, respectively. Each table comprises a left and right panel that correspond respectively to the governmental approach and the entity-wide approach.

For the governmental approach, the first entry in column I is the home-rule effect, as estimated using the standard DiD methodology. The entries in column II
Table 8: Estimated effect of home rule on own-source revenue per capita (ownrev\textsubscript{mt})

<table>
<thead>
<tr>
<th>HR effect</th>
<th>Governmental approach</th>
<th>Entity-wide approach</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>HR effect</td>
<td>147.78*** (37.83)</td>
<td>-</td>
</tr>
<tr>
<td>2 years before HR</td>
<td>-</td>
<td>21.17 (28.09)</td>
</tr>
<tr>
<td>1 year before HR</td>
<td>-</td>
<td>10.95 (22.28)</td>
</tr>
<tr>
<td>1 full fiscal year with HR</td>
<td>-</td>
<td>66.84* (30.37)</td>
</tr>
<tr>
<td>2 full fiscal years with HR</td>
<td>-</td>
<td>124.77*** (37.89)</td>
</tr>
<tr>
<td>3+ full fiscal years with HR</td>
<td>-</td>
<td>174.01*** (48.50)</td>
</tr>
<tr>
<td>(R^2)</td>
<td>0.778</td>
<td>0.778</td>
</tr>
<tr>
<td>(N)</td>
<td>16,388</td>
<td>16,388</td>
</tr>
</tbody>
</table>

Notes: Estimates are generated from regression equations (2) and (3) in the Appendix. Standard errors are clustered at the level of the municipality and reported in parentheses. The asterisks *, **, and *** denote statistical significance at a threshold of 5, 1, and 0.5 percent, respectively.

Table 9: Estimated effect of home rule on operating expenditure per capita (opexp\textsubscript{mt})

<table>
<thead>
<tr>
<th>HR effect</th>
<th>Governmental approach</th>
<th>Entity-wide approach</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>HR effect</td>
<td>109.17*** (26.62)</td>
<td>-</td>
</tr>
<tr>
<td>2 years before HR</td>
<td>-</td>
<td>2.95 (24.79)</td>
</tr>
<tr>
<td>1 year before HR</td>
<td>-</td>
<td>20.78 (27.26)</td>
</tr>
<tr>
<td>1 full fiscal year with HR</td>
<td>-</td>
<td>63.87* (31.59)</td>
</tr>
<tr>
<td>2 full fiscal years with HR</td>
<td>-</td>
<td>53.09* (26.36)</td>
</tr>
<tr>
<td>3+ full fiscal years with HR</td>
<td>-</td>
<td>131.54*** (36.58)</td>
</tr>
<tr>
<td>(R^2)</td>
<td>0.812</td>
<td>0.812</td>
</tr>
<tr>
<td>(N)</td>
<td>16,388</td>
<td>16,388</td>
</tr>
</tbody>
</table>

Notes: Estimates are generated from regression equations (2) and (3) in the Appendix. Standard errors are clustered at the level of the municipality and reported in parentheses. The asterisks *, **, and *** denote statistical significance at a threshold of 5, 1, and 0.5 percent, respectively.
derive from the event-study analysis. Estimates that are not statistically different from zero two years before and one year before the adoption of home rule are consistent with our assumption of parallel trends.

Tables 8 and 9 provide convincing evidence that home rule causes a large increase in the size of government. Furthermore, this general conclusion is not sensitive to the approach used in defining revenue and expenditure. The increase in own-source revenue amounts to $148 per capita in governmental funds and $194 per capita entity-wide. Based on the event-study analysis, parallel trends seem a safe assumption, since the home-rule effect does not become statistically significant until the first full fiscal year of home rule. The effect also appears to strengthen over time, at least in the short term, as indicated by the increasing magnitude of the estimates (columns II and IV). The results for operating expenditure, presented in Table 9, show a similar pattern to those for own-source revenue, although the magnitude of the effect is smaller. Home rule increases operating expenditure by $109 per capita from governmental funds and by $144 per capita entity-wide.

Table 10: Estimated effect of home rule on the operating surplus per capita (opsurp$_{mt}$)

<table>
<thead>
<tr>
<th></th>
<th>Governmental approach</th>
<th>Entity-wide approach</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>HR effect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51.41* (24.89)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 years before HR</td>
<td>-</td>
<td>15.21 (22.20)</td>
</tr>
<tr>
<td>1 year before HR</td>
<td>-</td>
<td>-11.32 (24.14)</td>
</tr>
<tr>
<td>1 full fiscal year with HR</td>
<td>-</td>
<td>3.30 (35.50)</td>
</tr>
<tr>
<td>2 full fiscal years with HR</td>
<td>-</td>
<td>96.59* (43.75)</td>
</tr>
<tr>
<td>3+ full fiscal years with HR</td>
<td>-</td>
<td>55.07* (27.48)</td>
</tr>
<tr>
<td>R$^2$</td>
<td>0.180</td>
<td>0.180</td>
</tr>
<tr>
<td>N</td>
<td>16,388</td>
<td>16,388</td>
</tr>
</tbody>
</table>

Notes: Estimates are generated from regression equations (2) and (3) in the Appendix. Standard errors are clustered at the level of the municipality and reported in parentheses. The asterisks *, **, and *** denote statistical significance at a threshold of 5, 1, and 0.5 percent, respectively.

26 For the entity-wide approach, the corresponding references are to columns III and IV.
In light of these results, the estimated effect of home rule on the operating surplus is exactly as we might expect. The strong increase in own-source revenue, combined with a comparatively muted increase in operating expenditure, generates an increase in the operating surplus of $51 per capita in governmental funds and $63 per capita entity-wide. Therefore, on at least one of the fiscal sustainability metrics considered in this paper, the local government autonomy conferred through home rule has a positive effect, as depicted in Figure 5.

For another of the fiscal sustainability metrics – the debt burden – home rule has no significant effect, although we do observe a marked substitution of general obligation bonds for other forms of debt. The evidence for these claims is in Table 11, which presents estimates only for the entity-wide approach, as they do not differ appreciably from the governmental approach. The first entry in column I is not statistically different from zero, so we retain the null hypothesis that the total debt burden is unaffected by home rule. However, the first entry in column III indicates that home rule causes the ratio of general obligation bonds to total revenue to increase by 0.16. From the first entry in column V, we see a near-equivalent decrease in the principal value of non–general obligation debt to total revenue. The event-study estimates (in columns II, IV, and VI) are depicted in Figure 6, which shows a dramatic, albeit delayed, substitution of general obligation bonds for non–general obligation debt.
Table 11: Estimated effect of home rule on the (entity-wide) debt burdens

<table>
<thead>
<tr>
<th>Dependant variable</th>
<th>debtburd_{mt}</th>
<th>goburd_{mt}</th>
<th>nogoburd_{mt}</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>II</td>
<td>III</td>
</tr>
<tr>
<td>HR effect</td>
<td>0.00</td>
<td>-</td>
<td>0.16***</td>
</tr>
<tr>
<td>(0.07)</td>
<td></td>
<td></td>
<td>(0.05)</td>
</tr>
<tr>
<td>2 years before HR</td>
<td>-</td>
<td>-0.04</td>
<td>-</td>
</tr>
<tr>
<td>(0.06)</td>
<td></td>
<td>(0.07)</td>
<td></td>
</tr>
<tr>
<td>1 year before HR</td>
<td>-</td>
<td>-0.05</td>
<td>-</td>
</tr>
<tr>
<td>(0.07)</td>
<td></td>
<td>(0.07)</td>
<td></td>
</tr>
<tr>
<td>1 full fiscal year</td>
<td>-</td>
<td>-0.03</td>
<td>-</td>
</tr>
<tr>
<td>with HR</td>
<td>(0.08)</td>
<td>(0.08)</td>
<td></td>
</tr>
<tr>
<td>2 full fiscal years</td>
<td>-</td>
<td>-0.06</td>
<td>-</td>
</tr>
<tr>
<td>with HR</td>
<td>(0.08)</td>
<td>(0.08)</td>
<td></td>
</tr>
<tr>
<td>3+ full fiscal years</td>
<td>-</td>
<td>0.00</td>
<td>-</td>
</tr>
<tr>
<td>with HR</td>
<td>(0.09)</td>
<td>(0.09)</td>
<td></td>
</tr>
<tr>
<td>R^2</td>
<td>0.584</td>
<td>0.584</td>
<td>0.651</td>
</tr>
<tr>
<td>N</td>
<td>16,388</td>
<td>16,388</td>
<td>16,388</td>
</tr>
</tbody>
</table>

Notes: Estimates are generated from regression equations (2) and (3) in the Appendix. Standard errors are clustered at the level of the municipality and reported in parentheses. The asterisks *, **, and *** denote statistical significance at a threshold of 5, 1, and 0.5 percent, respectively.
As previously discussed, local governments constrained by tax and expenditure limits often adjust their revenue mix in favour of non-tax revenues. We might therefore hypothesize that home rule, by exempting municipal governments from statutory property tax rate limits and the PTELL, would produce a symmetrical increase in tax dependency. Contrary to these predictions, however, home rule has an insignificant impact on the share of own-source revenue generated by local taxes. Instead, we observe a substitution within the mix of taxes. But unlike the results already presented, this conclusion is sensitive to the approach. Table 12 shows that, under the governmental approach, the share of own-source revenue derived from property taxes decreases by three percentage points. Using the entity-wide approach, however, there is no statistical change. But regardless of the approach, local sales taxes become a more significant part of the own-source revenue base.

<table>
<thead>
<tr>
<th>Share of own-source revenue derived from…</th>
<th>Property tax revenue</th>
<th>Local sales tax revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>II</td>
</tr>
<tr>
<td>HR effect (governmental approach)</td>
<td>-0.03***</td>
<td>0.03**</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>HR effect (entity-wide approach)</td>
<td>-0.01</td>
<td>0.02**</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.01)</td>
</tr>
</tbody>
</table>

Notes: Estimates are generated from regression equation (2) in the Appendix. Standard errors are clustered at the level of the municipality and reported in parentheses. The asterisks *, **, and *** denote statistical significance at a threshold of 5, 1, and 0.5 percent, respectively.

6. Summary and Discussion
Section 4 concluded with several research questions that we are now in a better position to answer.

6.1 Does home rule enlarge the public sector?
The answer is decidedly yes. The point estimates indicate that home rule leads to an entity-wide increase in own-source revenue and operating expenditure of $194 and $144 per capita, respectively. To put this in context, the summary statistics in Section 4 show that a non-home-rule unit of government collects annually an average of $745 per capita in own-source revenue and expends an average of $809 per-capita on operating activities (entity-wide). This implies that revenue increases by roughly one-quarter and expenditure by one-sixth.

6.2 Is the enlargement of the public sector a result of exemption from property tax limits?
Using the governmental approach to define revenue and expenditure, there is a clear tendency among home-rule municipalities to reduce dependence on property tax revenue, mirroring a trend documented for local governments throughout the United States (Krane, Ebdon, and Bartle 2004).
One explanation for this trend is the ubiquity of tax and expenditure limits that have forced local governments to exploit other revenue sources, including user fees and sales taxes; however, the results in this paper do not support that hypothesis. Home-rule units, unencumbered by tax and expenditure limits, exhibit no tendency to make greater use of property taxation. In fact, anecdotal evidence suggests that municipal governments, prior to placing a home-rule referendum question on the ballot, pre-emptively pass local ordinances that bind them to the conditions of the PTELL.27

It would appear, therefore, that municipal government officials are willing to retain property tax constraints if such constraints afford them otherwise enhanced autonomy over local affairs. Whatever binding constraints exist on the use of property taxation, the evidence suggests that they are political, rather than institutional, in nature.

But what are we to make of the disparate results produced from the governmental approach versus the entity-wide approach? The results show that home rule does not reduce property tax dependency overall, so we might infer that property tax revenues are used more extensively to fund so-called non-governmental activities. It is possible that these revenues are financing pension obligations, but more research would be necessary to determine whether this is the case. Given the mounting pressure of these liabilities, this could be a fruitful area of research.

6.3 Does home rule induce a substitution of general obligation bonds for non–general obligation debt?

Once again, the answer is decidedly yes. Figure 6 depicts a dramatic retirement of non–general obligation debt and a statistically equivalent increase in general obligation bonds. The fact that home-rule units choose to make this substitution is likely driven by the lower interest rates on general obligation bonds.

It is also important to note that bond-rating agencies look favourably on the flexibility permitted by home rule and, therefore, are liable to assign home-rule units higher credit ratings, all else being equal. In effect, debt limits may prevent municipal governments from accessing relatively inexpensive debt instruments, and home rule unlocks the potential to further reduce debt servicing costs through lower interest rates.

6.4 Does the local government autonomy conferred through home rule improve fiscal sustainability?

Although the metrics used in this study are an imperfect way to assess the fiscal health and sustainability of local governments, the answer seems to be in the affirmative. At the very least, there is no evidence that home rule is detrimental.

27 An example is the city of Oakbrook Terrace, which adopted such an ordinance prior to its successful home rule referendum on November 5, 2002.
to a municipal government’s fiscal position. Home-rule units exhibit no tendency to exploit their freedom from debt limits by incurring a higher debt burden. Moreover, using both the governmental and entity-wide approach, we find that home rule generates a significant improvement in the operating surplus.

6.5 Conclusion
There is at least one indisputable fact about home rule in Illinois: it shifts the locus of power away from the State Legislature in Springfield and toward municipal government, wherever it may be. In the village of Riverdale, home rule places more authority in the hands of the village president and a six-member board of trustees. In the city of Chicago, home-rule powers are vested in 50 aldermen and a veto-holding mayor.

The perceived implications of this power shift, however, remain hotly contested. This fact was once again brought to the fore in the recent midterm elections, which included six ballot measures involving home rule. In the village of Batavia, which automatically obtained home-rule status in 2009 only to have its population subsequently fall below 25,000, residents had the rare opportunity to test-drive home rule before making their decision. Unlike their neighbours in Westmont just six years earlier (and only 25 miles away), Batavians evidently liked how it handled and voted on November 7, 2018 to retain home rule. On all other counts, home rule was soundly rejected, with the majority of voters in Beach Park, Lemont, Prospect Heights, Winthrop Harbor, and Zion choosing to remain non-home-rule municipalities. This paper will not settle this dispute, but hopefully it will add some much-needed objective evidence to the home-rule debate and to a broader conversation about the role of municipalities in a federal system.

7. References


28 When the population of a home-rule municipality falls below 25,000, home rule is not automatically rescinded, but it does trigger a referendum on whether home rule is to be retained.

29 The village of Westmont automatically became a home-rule unit of government in 2007, but, like Batavia, its population subsequently fell below 25,000. With 4,314 votes to retain and 4,560 votes to repeal, the residents of Westmont rejected home rule on November 6, 2012.


Does Local Government Autonomy Promote Fiscal Sustainability?

Lessons from Illinois’s Home-Rule Municipalities


8. Appendix

The pre-home-rule versus post-home-rule (PvP) estimates are generated from the following regression equation:

\[ y_{mt} = \alpha_m + \rho Pop_{mt} + \delta HR_{mt} + \varepsilon_{mt}, \]  \hspace{1cm} (1)

where \( y_{mt} \) is any of the fiscal outcomes listed in Table 6, with subscripts denoting municipality \( m \) in fiscal year \( t \).

The numerical values in Table 7 are the estimated values of the coefficient on \( HR_{mt} \), which takes unity (i.e., is equal to 1) when a municipality has home rule and is zero beforehand. Time-invariant features of a municipality are controlled by a municipality fixed effect \( \alpha_m \). A time-varying control for population is included as \( Pop_{mt} \), and \( \varepsilon_{mt} \) is an error term.

Equation (1) is estimated only for the 55 home-rule adopters, whereas the difference-in-differences specification:

\[ y_{mt} = \alpha_m + \tau_t + \gamma (MSA_m \times \tau_t) + \rho Pop_{mt} + \delta HR_{mt} + \varepsilon_{mt}, \]  \hspace{1cm} (2)

is estimated for 964 municipal governments. For the 909 non-home-rule comparators, \( HR_{mt} \) is equal to zero throughout the sample period. The equation controls for a fiscal year effect \( \tau_t \) common among municipalities, and an interaction term, \((MSA_m \times \tau_t)\) which allows municipalities within the Chicago-Naperville-Elgin MSA to have a distinct fiscal year effect.\(^{30}\)

In results not reported, (2) was estimated with additional time-varying controls for the distributions of age, household income, and educational attainment; a Herfindahl-Hirschman Index for age and educational attainment distributions; and the coefficient of variation of household income. The choice of these regressors follows the work of Temple (1996), who demonstrated that heterogeneous communities place more value on institutional limits, thereby making them less likely to rescind them through successful home-rule referenda. Perhaps because the composition of communities is slow to change, this did not add significant explanatory power above and beyond the municipality fixed effect.

Following the work of Autor (2003), this paper tests the parallel trends assumption with the following regression equation:

\[ y_{mt} = \alpha_m + \tau_t + \gamma (MSA_m \times \tau_t) + \rho Pop_{mt} + \theta_1 HR_{m,t+2} + \theta_2 HR_{m,t+1} \]
\[ + \theta_3 HR_{m,t+0} + \theta_4 HR_{m,t-1} + \theta_5 HR_{m,t-2} + \varepsilon_{mt}, \]  \hspace{1cm} (3)

\(^{30}\) Not all municipal governments included in this study share a fiscal year end date (although roughly 85 percent have chosen April 30). With that in mind, one might contend that the fiscal year effects should appropriately be interacted with a fiscal year end date indicator variable. Doing so does not change any of the conclusions, nor does restricting the sample to only those municipalities that have chosen April 30 as their fiscal year end-date.
where the term $HR_{mt}$ from (2) is replaced with a series of leading and lagging indicators of home-rule transition. For a home-rule adopter, $HR_{m,t+2}$ takes unity two years prior to home-rule transition, $HR_{m,t+0}$ takes unity in the first full fiscal year with home rule, and $HR_{m,t-2}$ takes unity for every year beyond the second full fiscal year with home rule. To be clear, this is to say that, within the treatment group, only $HR_{m,t-2}$ may take unity for multiple years.

Coefficient estimates of $\theta_1$ and $\theta_2$ that are statistically equal to zero provide a strong indication that the parallel trends assumption is satisfied. An added benefit of estimating (3) is that it helps us better understand the dynamic effects of home rule. Specifically, we can evaluate whether the effects of home rule, if present, occur immediately or with a lag, and whether they are likely to be permanent or temporary.
Does Local Government Autonomy Promote Fiscal Sustainability?  
Lessons from Illinois’s Home-Rule Municipalities

IMFG Papers on Municipal Finance and Governance

ISBN 978-0-7727-0915-8

ISBN 978-0-7727-0919-6

17. Provincial-Municipal Relations in Ontario: Approaching an Inflection Point, by André Côté and Michael Fenn, 2014.


ISBN 978-0-7727-0938-7

ISBN 978-0-7727-0943-1


ISBN 978-0-7727-0951-6

ISBN 978-0-7727-0953-0

ISBN 978-0-7727-0956-1


ISBN 978-0-7727-0971-4

ISBN 978-0-7727-0973-8

ISBN 978-0-7727-0977-6

ISBN 978-0-7727-0979-0


ISBN 978-0-7727-0998-1


Does Local Government Autonomy Promote Fiscal Sustainability?
Lessons from Illinois’s Home-Rule Municipalities