

Competition, knowledge, and local government

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Abstract This paper applies the insights of Austrian economics to an important issue in local political economy. Basic economic theory holds that greater competition produces superior outcomes in private goods markets. The same should be true in the “markets” for the output of local government. Brennan and Buchanan (1977, 1980) show that interjurisdictional competition may serve as a potential restraint on the monopoly powers of local Leviathan and Tiebout (1956) shows that it may help lead to the production of efficient quantities of local public goods. However, other potential virtues of competition in the market for local collective goods have been largely ignored. This paper explores those other virtues as well as the neoclassical theoretical foundations of the Tiebout (1956) model, upon which much of this literature is based. This has public policy implications for local governments, which have taken on increased importance given the recent global movement towards more decentralized government.

Keywords Interjurisdictional competition · Fragmentation · Decentralization · Federalism · Leviathan · Local government

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1 Introduction

In recent decades there has been a movement in many countries towards shifting the provision of public services away from the national government, down to lower levels of government. (Blankart and Fasten (2008) discuss some specific examples of this.) That decentralization has increased the extent to which there is competition in the provision of those public services. While much has been written in the

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economics literature about how interjurisdictional competition may serve as a restraint on the monopoly powers of local Leviathan (e.g., Brennan and Buchanan 1977, 1980) and how it may lead to the production of efficient quantities of local public goods (e.g., Tiebout 1956), other potential virtues of competition in the market for local collective goods have been largely ignored.¹ In fact, in the political science literature, the predominant view has been that consolidated (and thus monopolistic) local government is the preferred arrangement.² Boettke et al. (2012) provide an excellent summary of this “neoconsolidationist” critique (as well as suggested responses from economists). I argue, to the contrary, that in metropolitan areas with greater levels of interjurisdictional competition, the market for local collective goods should be characterized by: 1) the presence of more efficient methods of production, and 2) the availability of a greater variety of tax/service bundles.³

In addition, the application of the unique insights of Austrian economics show that the underlying theoretical foundations of the Tiebout (1956) model, upon which much of the literature in this area is based, are fundamentally flawed. The problem is that Tiebout relies on the standard neoclassical static equilibrium approach. The dynamic equilibrium approach taken by Austrian economics is a more realistic way to model the process. Section 2 summarizes the empirical literature on the impact of interjurisdictional competition. Sections 3 and 4 discuss the two ignored virtues of competition. Section 5 discusses the superiority of the Austrian view to the neoclassical view. Concluding remarks are contained in Section 6.

2 Empirical literature

Polycentric organization can have multiple positive effects. The ability of interjurisdictional competition to serve as a restraint on the monopoly powers of local Leviathan, as hypothesized by Brennan and Buchanan (1977, 1980) has been well studied in the empirical literature. The evidence has been somewhat mixed, but much of the sub-national literature has supported the Leviathan model’s prediction of a negative relationship between fiscal exploitation and the level of interjurisdictional competition. For example, Wagner and Weber (1975); Sjoquist (1982); Schneider (1986, 1989); Nelson (1987); Zax (1989); Eberts and Gronberg (1990), and Stansel (2006) all supported the Leviathan model. Oates (1985) and Forbes and Zampelli (1989) were notable exceptions.⁴

In addition, Parks and Oakerson (1988, 1992) provide detailed case studies of two highly fragmented metropolitan areas: St. Louis, Missouri and Allegheny County (Pittsburgh), Pennsylvania. They found no significant relationship between jurisdic-

¹ For notable exceptions, see Vihanto (1992) and Tullock (1994).

² The work of Vincent and Elinor Ostrom on polycentric governance is a notable exception. See, for example, Ostrom et al. (1961); Ostrom (1972), and Ostrom (2000).

³ While my focus herein is on competition from other local governments, that competition can also come from private institutions such as homeowners associations and business improvement districts. Foldvary (1994) and Nelson (2005) provide detailed discussions of those private institutions. Nelson (2009) provides a discussion of the recent rise of such institutions.

⁴ For more detailed recent summaries see Staley et al. (2005); Stansel (2006), and Yeung (2009).

tion population and per capita expenditures, implying that the economies of scale argument used by consolidationists lacks empirical support, at least in these two areas. Liner (1994) examined cities in 43 states and found that more lenient annexation laws (allowing central cities to more easily expand) were not associated with lower costs of service delivery, measured by per capita expenditures. More recently, Hall and Ross (2010) found a negative relationship between interjurisdictional competition and the adoption of an income tax in Ohio school districts, but the statistical significance disappears when spatial dependence is incorporated. Crowley and Sobel (2012) found that fiscal decentralization was negatively correlated with local property tax rates in Pennsylvania.

The literature discussed above has examined the Leviathan hypothesis, but it has not directly examined the impact of decentralization on “productive efficiency.” One of the difficulties is how to measure that efficiency. The work that comes closest to doing so relates to education, which happens to be the largest item in local government budgets. For example, Staley and Blair (1995) and Blair and Staley (1995) examined the impact of interjurisdictional competition on test scores in Ohio school districts, using test scores in neighboring districts as their measure of competition. They found the expected positive effect on student achievement. Hoxby (2000) used an even more direct measure of productive efficiency—test scores, educational attainment, and income, each divided by the log of per pupil spending—and found evidence that local decentralization was associated with higher productive efficiency in U.S. schools. Barankay and Lockwood (2007) find evidence that local decentralization was associated with higher productive efficiency in Switzerland, measured by educational attainment.

While the ability of competition to constrain Leviathan is important, it has already been widely researched. The ability to lead to the efficient quantity of local public goods, as hypothesized by Tiebout (1956) has also been examined quite thoroughly, though much less so in the empirical literature.⁵ Our interest here is in the two relatively ignored virtues: the greater productive efficiency of local governments and the greater diversity of their output. The latter has received substantially less attention than the former. Those will be examined in the next two sections.

3 Competition and productive efficiency

Decentralized, competitive markets for local collective goods may possess higher levels of productive efficiency than less competitive markets for a variety of reasons: 1) Decentralized provision of goods provides a procedure to make better use of information that is known but is dispersed across the minds of all the individuals in society. 2) Competition in the market for goods and services creates stronger incentives for providers to utilize *existing* efficient methods of production. 3) That competition also creates stronger incentives for providers to seek and discover *new*, more efficient methods of production. These three processes will be discussed in turn below.

⁵ For example, Yinger (1982) asserts that the efficient quantity will not be achieved because local property taxes are capitalized into housing values, which Tiebout ignores.

3.1 Competition and Hayek's "knowledge problem"

It would make little difference that local governmental structures were highly fragmented, if the central government was responsible for the financing and provision of all (or even most) local collective goods. Thus, in order for competition between local governments to have a substantial impact, *de facto* decentralization of the nation's overall system of government is required.⁶ In other words, if there are many competing local jurisdictions, but the federal and state governments handle most everything and give local governments only a very small area of responsibility, then the impact of that interjurisdictional competition will be relatively small. For it to have the largest possible impact, government responsibilities need to be devolved to the lowest possible level of government. For example, while most spending on K-12 education is done by local governments, much of the revenue is often redistributed by state governments, and the state and federal governments often play a large role in restricting how those funds may be spent. The federal government also influences policing decisions by making highway funds conditional upon adopting certain uniform standards of law such as blood alcohol content levels for drunk driving violations. Furthermore, state governments often dictate local land use policies. For example, until very recently in Florida all localities had been required to submit a growth management plan to a state agency.⁷ These policies centralize government at higher levels and thereby restrict the extent to which competition between local jurisdictions can produce desirable effects.

The underlying issue here is how the provision of collective goods will be organized, with a centralized system or a decentralized one. This brings to the forefront what Hayek (1945) referred to as the knowledge problem.

The economic problem of society is ... a problem of the utilization of knowledge not given to anyone in its totality. ... [This] is at least one of the main problems of economic policy—or of designing an efficient economic system. ... This is not a dispute about whether planning is to be done or not. It is a dispute as to whether planning is to be done centrally, by one authority for the whole economic system, or is to be divided among many individuals. (519–20)

The knowledge of which Hayek speaks is not the kind of statistical information that can be relatively easily communicated to a central planner, but rather information about the "particular circumstances of time and place." (524)

If we can agree that the economic problem of society is mainly one of rapid adaptation to changes in the particular circumstances of time and place, it would seem to follow that the ultimate decisions must be left to the people who are familiar with these circumstances, who know directly of the relevant changes and of the resources immediately available to meet them. We cannot expect that this problem will be solved by first communicating all this knowledge to a central board which, after integrating *all* knowledge, issues its

⁶ I do not mean by this that vertical integration would make the discovery process unnecessary, but rather that it would make it less beneficial.

⁷ That policy was repealed in June 2011.

orders. We must solve it by some form of decentralization. ... We need decentralization because only thus can we ensure that the knowledge of the particular circumstances of time and place will be promptly used. (524)

The widely dispersed knowledge in a society can be most efficiently utilized with a decentralized system of government. Thus, while it is the interjurisdictional competition itself (i.e., the horizontal dispersion of power within the lowest level of government) that is primarily alleged herein to influence the efficiency of local collective goods providers, *de facto* decentralization (the vertical dispersion of power within the entire national system of government) is a necessary precondition of that greater efficiency.

3.2 Competition and incentives

Despite their advantages (relative to central government bodies) in obtaining the requisite knowledge of the particular circumstances of time and place, providers of local collective goods have only weak incentives to utilize efficient methods of production. As Vihanto notes, “Besides being free to do so, the city managers must be motivated to act upon their information before a more complete utilization of the dispersed information can be anticipated.” (414) The reason local governments’ incentives are weak compared to providers of private goods is that there are no residual claimants who possess the property right to the goods they produce. Vihanto goes on to say that the private solution of residual claimancy and property rights over output is not feasible in the case of local governments because public goods cannot be sold in the open market. However, he says,

[a] responsive production of public goods enhances the price of the land on which the public goods are consumed, and so the city managers could in principle obtain their rewards indirectly in the form of higher land value if they possessed all the land within their jurisdictions (Sonstelie and Portney (1978, 266)). In practice such concentration of land ownership would hamper the discovery of efficient uses of land and would also otherwise be inexpedient or even impossible to bring about. (Vihanto, 414)

Vihanto fails to mention—perhaps because he assumes government agents are benevolent—that the city managers could also obtain their rewards indirectly (without actually *owning* the land) through the utility they gain from the increased property tax revenue they have at their disposal due to the higher property values in their jurisdiction. By dropping the assumption of benevolence, the insights of Austrian economics can be better incorporated with the insights of public choice models. Interjurisdictional competition within a decentralized system provides the setting in which local collective service providers can best obtain the information needed to *identify* efficient methods of production. The acknowledgement that government agents—like all other economic agents—behave in a self-interested manner reveals the mechanism by which local collective service providers can also be given the incentive to *utilize* those efficient methods of production. Thus, in a model where government agents behave as if they were revenue maximizers (or perhaps discretionary-budget maximizers, as in Niskanen (1975)), the ability of

those agents to reap the rewards of efficient production provides a positive incentive for them to actually utilize those efficient methods of production.

Competition itself provides yet another incentive, a negative one. The more competing jurisdictions there are in a given metropolitan area, the greater the ability of consumers to vote with their feet by choosing an alternative local collective service provider in that same market (Tiebout 1956). Increased consumer power will require local governments to be more sensitive to the efficiency with which they produce their output. All else being equal, if a particular local collective service provider utilizes less efficient methods of production, then it will have to charge higher prices to provide the same level of service. In a competitive market, other providers will have an incentive to use more efficient methods, charge lower prices, and therefore attract more customers than the less efficient provider. Thus, the more competition there is within a local collective goods market, the more likely it is that the local collective goods providers in that market will utilize more efficient methods of production.

3.3 Competition as a discovery procedure

The final issue in this section involves the role of competition in the discovery of new, more efficient methods of production. There is an important difference here between the standard neoclassical conception of competition and the Austrian view.

According to the typical neoclassical view, competition is a situation where the competitors make as perfect use as possible of the *existing* information ... [whereas] in the Austrian theory the main function of competition is considered to be the *discovery* of that information which in the neoclassical theory is already assumed to exist (Hayek (1948), 94). [emphasis added] (Vihanto, 418)

Thus, the standard neoclassical conception of competition ignores the idea of what Hayek (1978) termed “competition as a discovery procedure.”

The argument here is similar to the one discussed above. Just as competition provides an incentive to make use of *existing* efficient methods of production, it also provides an incentive for local collective service providers to seek and discover *new*, even more efficient methods. The discovery of new knowledge is not an exogenous event. It is the direct result of the self-interested behavior of economic agents in competitive markets seeking to provide a more desirable product at a lower price than their competitors. All else being equal, agents in more competitive markets will have stronger incentives to devote resources towards the search for new, more efficient methods of production than those in less competitive markets. The standard neoclassical analysis is systematically biased against decentralized competitive markets because it ignores this role of competition as a procedure by which new discoveries can be more readily made, essentially assuming that the discovery of new information is exogenous. Therefore, “the neoclassical case for centralization is considerably weakened if the competition between local governments is seen not only as a procedure to make use of known information but also as a procedure to find out new and unforeseeable opportunities for social improvement.” (Vihanto, 414)

Along similar lines, Pennington's (2011) work on "robust political economy" emphasizes how a decentralized form of organization can minimize the negative consequences of any particular error.⁸ That is, if there's only one decision-making body and it makes an error, the consequences will be far-reaching. If decision-making is dispersed, the consequences will be much more isolated. The competition that decentralization promotes encourages decision-makers to learn from each others' mistakes and thereby helps to address the knowledge problem.

In summary, decentralized provision of goods provides a procedure to make better use of existing information that is known but is dispersed across the minds of all the individuals in society. Competition in the markets for goods and services also tends to create stronger incentives for providers to utilize more efficient existing methods of production and to discover new more efficient methods.

Although local collective goods markets differ greatly from private goods markets, that same positive relationship between the level of competition and the productive efficiency of output should be present there as well. Local governments in metropolitan areas with more competing jurisdictions should be expected to use more efficient methods of production than those in less competitive markets. The reason that productive efficiency matters is that in areas where local collective services are produced more efficiently fewer resources will need to be diverted from other more productive uses. As a result, all else being equal, more residents and mobile factors of production will choose to locate in those areas than in areas with less productive efficiency.⁹

The next section will discuss another potential virtue of competition in the market for local collective goods: the production of a more diverse range of tax/service bundles from which residents and mobile factors of production can choose.

4 Competition and diversity of market output

The diversity of output available to consumers in specific markets tends to vary with the number of firms supplying goods to that market. For example, in the market for television programming, consumers tend to have three choices. They can receive over-the-air broadcast signals without charge. They can purchase cable television programming from what is typically a local monopoly provider. Or, consumers can purchase satellite programming from a small number of providers. The latter two types of providers tend to offer a relatively limited variety of pre-packaged programming choices. Nevertheless, the output available to consumers is not highly diverse, and the market is not highly competitive.

In contrast, in the market for bread, consumers have a virtually unlimited range of products from which to choose. At their local grocery store they can purchase low-priced generic or store brands, national brands such as Wonder Bread, and more upscale gourmet brands. They can also go to specialty bread stores for additional

⁸ For an excellent collection of articles on robust political economy, see Volume 19, No. 2–3 (June 2006) of this journal. Leeson and Subrick (2006) provide an introduction to that symposium.

⁹ Stansel (2005); Hammond and Tosun (2011), and Stansel and Nesbit (2011) provide some evidence that local areas in the U.S. with more interjurisdictional competition have faster economic growth.

choices. In comparison to the market for television programming, the market for bread is highly competitive, and it produces a highly diverse range of output.

That same positive relationship between the level of competition and the diversity of output should also be expected to be present in local collective goods markets. In this case the output can be thought of as local tax and service bundles. While local collective goods are not sold on the market per se, by choosing where to locate, residents and the owners of mobile factors of production also choose a provider of those goods. The more competing providers there are within a local market (metropolitan area) as a whole, the more diverse the range of output in that specific market should be. Metropolitan areas dominated by several large municipal governments will offer consumers fewer choices of tax/service bundles than areas with dozens of competing municipal governments.

The reason that diversity of output matters is that any given resident or mobile factor of production will be better able to find a provider (political jurisdiction) with a combination of taxes and services that closely meets their own preferences in an area with a wider variety of available tax/service bundles. As a result, all else being equal, more residents and mobile factors of production will choose to locate in those areas than in areas with less diverse output.

5 The problem with the neoclassical approach

In the standard neoclassical model of economics, utilized by the seminal Tiebout (1956) model, individuals have perfect information and economies reach equilibrium virtually instantaneously. That makes for a simple, clean mathematical model that is relatively easy to manipulate (e.g., with comparative static analysis). The reality is often substantially more complicated. This is not meant to completely reject the notion that the reality of a theory's assumptions is a less useful judge of its validity than the accuracy of that theory's predictions. Simplifying assumptions are indeed necessary, but when they assume away matters important to the question at hand they can lead to flawed conclusions.¹⁰ The assumption of perfect information is one such example.

Not only is it unrealistic to assume that all consumers have perfect information. It ignores a crucial aspect of one of the most important questions in economics: why are some communities so rich and others so poor? The institutional characteristics of individual communities (nations, states, local economies, etc.) can vary quite substantially in the extent to which they are decentralized. Polycentric economies tend to make better use of the dispersed volume of existing information. However, they also tend to lead to the production of greater quantities of new information, or knowledge (e.g., new, less costly production techniques). That increase in knowledge tends to make those economies more prosperous.

Furthermore, the neoclassical idea that a static equilibrium exists at which Pareto optimality can be reached is fundamentally flawed. Economies are in a constant state of flux, continuously adapting to change after change. The dynamic Austrian view of

¹⁰ Holcombe (2008) provides a comprehensive discussion of the numerous flaws of the standard neoclassical equilibrium approach.

the equilibrium process provides a more realistic depiction of reality than the standard neoclassical static equilibrium approach of which the Tiebout (1956) model is an example.¹¹ However, Tiebout's idea that individuals' ability to "vote with their feet" (through residential mobility) provides a preference revelation mechanism that can help determine the ideal quantity (and quality) of local public goods is not necessarily in conflict with that dynamic equilibrium approach. Even when the unrealistic assumptions of the Tiebout model are not met, the ability of citizens to vote with their feet is a key factor in enabling them to sort themselves into communities that match their preferences. That sorting process takes time, a fact which standard neoclassical theory does not adequately acknowledge. The dynamic Austrian view of equilibrium provides a more realistic way to conceptualize this important process.

6 Conclusion

Interjurisdictional competition within metropolitan areas should produce greater productive efficiency and greater diversity of output in the market for local collective services. Both of those effects should serve to create a more attractive economic environment for residents and mobile factors of production. If that is correct, then higher fragmentation of local governmental structures should be beneficial to local economic performance. While Stansel (2005); Hammond and Tosun (2011), and Stansel and Nesbit (2011) provide some empirical evidence in support of that hypothesis, this is a relatively unexplored area to which the insights of Austrian economics can have much to contribute.¹²

This has important implications for public policy. It suggests that the worldwide movement towards more decentralized governance may have important benefits for residents, including more thriving local economies. Furthermore, it is supportive of the wisdom of dissatisfied residents in some areas (for example, the two largest metropolitan areas in the United States of America—Staten Island in New York and San Fernando Valley in Los Angeles) who have been trying, unsuccessfully, in recent years to detach from their central city and form new independent jurisdictions. Other areas have seen similar efforts. In contrast the idea that competition is virtuous calls into question the wisdom of efforts to produce some form of consolidated local government (as has happened in about a dozen areas in the U.S., including Indianapolis, Indiana; Jacksonville, Florida; Louisville, Kentucky; and Nashville, Tennessee). Those areas may end up with, *ceteris paribus*, poorer economic performance than they would have otherwise had.

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¹¹ O'Driscoll and Rizzo (1985) provide a detailed discussion of the importance of the passage of time in the equilibrium process. See in particular Chapter 6.

¹² Ikeda (2007) in this journal provides an excellent example of the application of Austrian insights to issues in urban economics. Ikeda and Staley (2004) provide an introductory essay to a symposium on "urban interventionism," to which an entire issue of this journal was devoted.

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