

On the political economy of zoning

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Abstract

Households choose a community in a metropolitan area and collectively set a minimum housing quality and a property tax to finance a local public good. The collective imposition of a lower bound on housing consumption induces an income-stratified equilibrium in a specification where meaningful community differentiation would not arise without zoning. We show computationally that zoning restrictions are likely to be stringent, with a majority facing a binding constraint in communities that permit it. By inducing a stratified equilibrium, zoning causes Tiebout-welfare gains in aggregate but with large welfare transfers. Relative to stratified equilibrium without zoning, the zoning equilibrium is significantly more efficient as it reduces housing-market distortions.

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1. Introduction

Few policies of local governments are more ubiquitous or more controversial than zoning. Critics argue that much zoning is fiscally motivated, a tool enabling residents of wealthy communities to restrict entry of poorer households who would contribute less to tax revenues than

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the cost of the public services they consume. The terms “fiscal zoning” and “exclusionary zoning” have been coined to describe such exercise of community zoning powers.² Bitter, repeated court battles attest to the intense hostility to zoning and the equally intense resistance by communities to restrictions on their use of zoning.³

While economic analysis has illuminated the incentive issues associated with use of zoning,⁴ the quest for a model characterizing zoning in a multi-community setting with heterogeneous households has proven elusive. Such an effort encounters two key difficulties. One is that there appears to be a chicken-and-egg problem: a community’s residents set zoning, but one cannot determine who those residents are without knowing the community’s zoning policy. The other difficulty is that efforts to model zoning and property taxation as the outcome of a collective choice process confront the well-known (Plott, 1967) problems of existence of voting equilibrium in multi-dimensional settings.

In this paper, we develop a model of zoning in multi-community equilibrium. We now briefly outline key features of the model, both to highlight its important elements and to indicate how the model resolves the two problems just discussed. We assume collective choice of property tax to finance a local public good and choose a specification of preferences for which, absent zoning, there is no mechanism for households to stratify across communities.⁵ This permits us to provide a precise characterization of the role of zoning in inducing any stratification that emerges in equilibrium. We resolve the chicken-and-egg problem with the following timing of events. Households first buy land in a community. They then vote simultaneously on the property tax rate and on the minimum amount of housing that a dwelling must provide.⁶ Households may then relocate to another community or adjust their land holdings within the community. They then acquire housing, respecting the zoning restriction imposed in their chosen community, the public good levels are determined, and consumption occurs. At the voting stage, the potential non-existence of equilibrium is resolved by invoking the representative-democracy model of Besley and Coate (1997).

To anticipate our results, we find that communities adopt very stringent zoning ordinances. In light of this, it is important to note that, if anything, our model understates the incentives for restrictive zoning. It is often argued, quite plausibly, that incentives for restrictive zoning are particularly strong when a group of early community arrivals can impose zoning requirements, exempting themselves, while binding future residents. This is not permitted in our model. All residents must adhere to the community zoning ordinance. Thus, when voting on a zoning ordinance, voters know that they will be required to adhere to the ordinance if they stay in the

² Mills (1979) and Ladd (1998), Chapter 1, provide valuable perspectives on the issues and background regarding legal developments related to use of zoning.

³ The Mount Laurel New Jersey case is perhaps the most prominent example. In 1975, the New Jersey State Supreme Court declared unconstitutional Mount Laurel’s zoning restrictions, and the NJ Court mandated that every community accept its “fair share” of low income housing. In several subsequent decisions, the NJ Court has attempted to force adherence to its fair-share mandate (Ladd, 1998; Schuck, 2002).

⁴ White (1975a,b), Ohls et al. (1974, 1976), and Courant (1976) are leading papers introducing the formal analysis of zoning and characterizing the incentives for use of zoning. See also Fischel (1985) and Epple et al. (1988).

⁵ While, empirically, preferences may be such that stratification would occur in the absence of zoning, we believe that the incentives for zoning are most effectively illuminated in a model in which stratification would not otherwise occur. Also, as becomes clear in our computational analysis, it is highly likely that similar incentives will be present in a model in which preferences would induce stratification.

⁶ We assume that adequate tools are available (e.g., building codes and restrictions on minimum lot size and floor space) to permit a community, effectively, to specify the minimum number of units of housing services that a dwelling must provide.

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