A Market for Institutions:
Accessing the Impact of Restrictive Covenants on Housing

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Abstract
Residential Community Associations (RCAs) are quickly becoming a common but controversial feature of the housing market. Supporters of RCAs point to the rapid growth as a clear sign of their success in improving upon market failures. RCAs provide additional restrictions that can limit neighborhood externalities and reduce future consumption risk. However, critics contend that RCAs create additional conflicts and push problems into other neighborhoods. Previous published empirical work on the impact of RCA zoning has been limited in institutional detail and has not corrected for spatial autocorrelation. This paper uses 1,487 single-family sales in 2000 from Greeley, Colorado and a unique dataset that includes information on RCAs’ various use restrictions, building restrictions, and voting rules to investigate the impact of private zoning on the housing market. A spatially corrected semi-log hedonic model is employed to estimate the marginal price impacts. The main model of interest finds that building restrictions have no impact on prices, while use restrictions increase prices. Furthermore, the optimal voting decision rule is at an 80 percent supermajority but voting rights to first mortgage holders significantly reduces prices.

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Introduction

There are few features of new housing construction that are becoming as pervasive as residential community associations (RCAs). RCAs, more commonly homeowner associations, are private contracts called covenants, which are tied to the land and enable homeowners to provide public goods or deal with externalities “outside” of the local government. Some of these RCAs are home to more that 50,000 residents and provide many of the same services that one would expect from a municipality, while the majority of RCAs are the size a subdivision within a municipality. Still, there is a significant legal difference between a RCA and a municipality; covenants are treated as a private contract and municipal incorporations are treated as a public government. This places municipalities under the restrictions of the Avery decision and leaves RCAs open to a variety of institutional forms. This means in part that RCAs, like private corporations, can limit voting rights to non-owning residents such as renters or first mortgage holders. Furthermore, votes can be weighted by the value or size of owned improvements and the common voting rule can be set beyond simple majority.

The rapid growth of RCAs in the housing market partially implies that flexibility in voting rules is a benefit to single-family housing and zoning by municipal government is incomplete. Still, RCAs are also a lightning rod for criticism and many academics, mostly in the political science fields, are pessimistic about their value. The range of views can be quickly understood by contrasting McKenzie (1994) with Foldvary (1994).

Despite the fact that private covenants are quickly becoming a common feature of improved land, economic study of RCAs is limited, albeit growing. Speyrer (1989), Cannaday (1994), and Hughes and Turnbull (1996a) are the only empirical work on private zoning. While these studies are important they are also limited in institutional detail and do not correct for spatial autocorrelation. This latter point is especial important because RCAs, being relatively new, are concentrated in areas with new construction.

This paper will investigate the impact of restrictive covenants on single-family housing values in Greeley, Colorado, using a hedonic pricing method. This includes a unique dataset gathered by the author that includes information on the characteristics of individual RCAs. The findings can be summarized in three parts: first, RCAs on average add about 3 percent or $4,450

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2 RCAs often also provide public goods and therefore and increase in housing price may also be due to the net benefit of the public good. This paper is limited to the restrictions and voting rules and therefore the question of efficient public good provision will be left to future study.
to the sale price; second, RCAs vary in their impact with some associated with substantial price premiums others are associated with price discounts; and finally, building restrictions provide no impact on prices and use restrictions increase prices. Furthermore, the optimal voting decision rule is at an 80 percent supermajority but voting rights to first mortgage holders significantly reduces prices.

The remainder of the paper is divided into five parts. The next section provides a brief introduction into RCAs, which is followed by a literature review. Since this study uses a unique dataset, the data portion of the paper large and detailed. The final two sections summarize the regression model and results.

RCAs, Restrictions, and Risk

Ronald Coase's 1960 work, The Problem of Social Costs, provides the very familiar framework for when one can expect externalities to be a problem. Externalities in a world of zero transaction costs and fully defined property rights will be internalized through market transactions. However, both a lack of defined property rights and the existence of transaction costs will inhibit efficiency.

Human beings have been dealing with this reality for quite some time and have created various organizations in part to deal with these externalities. National governments and multinational corporations are two sophisticated examples but RCAs, while somewhat more humble, are also.

RCAs will attempt to promote efficiency by clarifying and arranging property rights. Negative externalities can be mitigated by removing some of the right to use one’s own property and transferring it to the neighbors. For example, in many RCAs, you do not have the right to use your front lawn as a parking lot without the express consent of your neighbors, and because there are significant transaction costs associated with organizing your neighbors to agree on an arrangement, you simply do not bother. This is an example of an efficient outcome if your willingness to pay is less than the sum of the neighbors' willingness to accept. Furthermore, residents who prefer to have more control over personal property and care less about the actions of neighbors will be less like to move to the restrictive RCA. Therefore, RCAs are able reduce the negative effects of externalities by adjusting property rights and providing signals to potential buyers.
insignificant signs. The authors conclude that individual restrictions are likely beset with collinearity issues, which arise from “imperfect hierarchy structures\textsuperscript{10}.”

The last two coefficients prove to be inline with expectations; both the strictness index and the interaction term are significant in models three and four, with a positive sign on the former and a negative sign on the latter. Using their fourth model and evaluating at the means, Hughes and Turnbull estimate the net increase in house price was about 6 percent for a 10 year-old subdivision and about 2 percent for a 20 year-old subdivision\textsuperscript{11}.

The current economic literature is in agreement that, on average, the restrictive covenants do add value residents by reducing the risk of future externalities. For single-family housing, the estimates range from 2 to 8 percent. However, Cannaday’s study suggests that an optimal level of restrictiveness may exist and some developers have regulated beyond. This implies that not all RCAs are improving housing prices. Furthermore, covenants can be change in the future by amendments or termination. Therefore, the restrictiveness of the covenant will be affected by the voting rules.

The motivation of this study is to expand the empirical literature by providing more institutional detail about RCA restrictiveness; I will differentiate between use and building restrictions and include voting rules.

Data

The data is a set of 1,487 single-family house sales and RCAs from Greeley, Colorado in 2000. Greeley, at about 80,000 residents, is the largest town in Weld County. The single-family sales, including sale price, housing characteristics, and GIS data was gathered from Weld County Assessors Office and Weld County GIS. All sales were limited to a price range between $50,000 and $500,000 in order to reduce the issue of unlivable house sales or non-arms-length transactions and to remove houses in the upper market.

[Insert Table 1 here]

RCA information was gathered at the Weld County Clerk and Recorder, where each covenant must be located and read through in order to build the database. There currently exists

\textsuperscript{10} Ibid. A good example of a hierarchy structure is Cannaday’s pet restrictions where one category (no pets) is clearly more restrictive than another (cats only).

\textsuperscript{11} In a latter paper, Hughes and Turnbull (1996b) the authors find that new commercial community associations in the Baton Rouge area commonly more strict that existing associations.