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The real estate takeover
Application of Grossman and Hart theory

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Abstract

In this article, I adopt a corporate takeover model to the problem of a developer who wants to renew an urban neighborhood. The problem outlined is a combination of the problems addressed by Grossman and Hart (1980. *The Bell Journal of Economics 11*, 42–64) and Shleifer and Vishny (1986. *Journal of Political Economy 94*, 461–488) in the corporate control literature. The relevant corporate story concerns value-improving monitoring performed by shareholders. Even though monitoring increases the value of the company for each investor, no shareholder would be willing to do it because there is an externality involved. Translating this into the language of urban redevelopment, no homeowner would do any improvement in the neighborhood unless he or she can internalize the benefit. The story in the urban renewal framework is more complicated. These property owners may differ in their valuation of even otherwise identical units since the owners may have different attachments to the neighborhood. I address some of these problems and also introduce the notion of dilution as the participating government agency's ability to force initial residents to sell to the developer or comply with costly new standards for development. Dilution increases the costs to potential holdouts.

JEL classification: C72; G34; R50

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> But the general rule holds that the amount and the character of building put upon each plot of land, is, in the main (subject to the local building by laws), that from which the most profitable results are anticipated, with little or no reference to its reaction on the situation value of the neighbourhood. In other words, the site value

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of the plot is governed by causes which are mostly beyond the control of him who determines what buildings shall be put on it.

—Alfred Marshall, 1920

1. Introduction

The motivation behind this article is a footnote in Grossman and Hart (1980) on the theory of takeover bids. In this article I extend their model and use a subgame perfect approach to the problem of a developer who wants to renew an urban neighborhood. The problem outlined in this article is a combination of the problems addressed by Grossman and Hart (1980) and by Shleifer and Vishny (1986) in the corporate control literature. The relevant corporate story of Shleifer and Vishny concerns value-improving monitoring performed by others. Translated into the language of urban redevelopment, no homeowner would do any improvement in the neighborhood unless he or she can internalize the benefit from so doing. Even though monitoring increases the value of the company for each investor, no shareholder would be willing to do it because there is an externality involved: those who do not monitor enjoy the benefit of monitoring would do any improvement in the neighborhood unless he or she can internalize the benefit.

Grossman and Hart (1980) address whether there is any incentive for a raider to initiate costly takeovers. In a model of atomistic shareholders, the authors find that costly takeovers may not be initiated unless shareholders agree to a post-takeover dilution of their shares to compensate the raider for the takeover cost. The reason is that shareholders will only be willing to trade at a price equal to the post-takeover value and the minority shareholders will free-ride on the value improvement. As a result the raider will not be able to recover even the cost of making a tender offer to profit from secretly purchasing shares before the tender offer.

The story in the urban renewal framework is more complicated. These property owners may differ in their valuation of even otherwise identical units since the owners may have different attachments to the neighborhood. In my article, I introduce the notion of dilution as the participating government agency's ability to force initial residents to sell to the developer or comply with costly new standards for development. Dilution increases the costs to potential holdouts.

Since the publication of Davis and Whinston (1961) and Schall (1976) in a related area, I have not come across any article addressing the problem of urban renewal using a corporate finance and/or game theoretic model. I follow Milgrom and Roberts (1982) article on limit pricing and entry and use a subgame perfect approach under complete but imperfect information in the game.

At the policy level, my research intends to develop a corporate finance game theoretic model to describe a broad range of urban redevelopment projects. It can also help in predicting the outcomes of real estate takeovers by developers, and evaluate the effectiveness and appropriateness of their using dilution (a privatized eminent domain in the context of urban renewal) in the process. In the absence of direct public intervention, urban redevelopment is in essence private investment in public goods. While Pareto improvement could be achieved by such undertaking,