THE DEREGULATION OF URBAN LAND MARKETS: A NOTE ON THE ALTERNATIVES TO ZONING*

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Abstract

The profound disenchantment with zoning as a tool for guiding urban growth has prompted researchers to present and examine a variety of alternatives. This paper examines three widely proposed alternatives to zoning, restrictive covenants, nuisance law and transferable development rights from a property rights perspective. The general case for deregulation of markets is examined and applied to the urban land market. Critical to the feasibility of deregulating the urban land market is the resulting incidence of transactions costs that attend any alternative planning mechanism. It is concluded that although these three alternatives have great potential, given the extreme difficulty of measuring the costs of planning a-priori, the present experiments with these proposals must be closely monitored with special attention to the incomes of market intermediaries.

I. Introduction

This paper investigates the advisability and feasibility of returning land use controls, in particular zoning, to the private sector. The main issues involved are first briefly illustrated with respect to the debate over regulation in the provision of public utility services, externality control and common property resources. These themes are then extended to urban land use planning to identify the economic goals which must be satisfied if deregulation is to succeed; as shall be demonstrated, transactions costs play the crucial role. Finally, some private market alternatives to zoning are examined from the point of view of their effects on efficiency and equity. In particular, restrictive

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covenants, nuisance laws and transferable development rights are examined for their potential in reforming urban land markets.[1]

II. The Deregulation Debate: Overview

The Case for Regulation

There are three instances where state interference in markets is widely accepted. The first relates to natural monopoly, the second to externailty and the third to common property resources.

Far from being a 'natural' phenomenon, natural monopolies are created by the technical conditions of production and exchange. This is often depicted as a situation where the average cost curve intersects the demand curve when both are downward sloping.[2] The essence of the problem is that due to high capital costs of production and distribution (as in the case of telephone and electrical utilities) prospective entrants are discouraged; the market is believed to be most efficiently served by one firm. Any entrant can be removed by predatory pricing, or constraining the market so that its unit costs are very high. Another related issue concerns the tendency for firms to attempt to enter despite these barriers, and upon their demise cause waste. Regulation is advocated to limit the monopoly rents earned by the single firm and also to ensure that the industry does not encourage 'excessive or ruinous competition'[3] by new firms that will either fail or cause the entire industry to earn below average returns.

The need for regulation in the case of externalities, especially airborne externalities in urban areas,is also generally accepted. The existence of positive externalities (public goods) usually causes much less concern than negative externalities (public bads) and aside from the unearned increment literature, economists have been little concerned with their control. However, with respect to public bads, especially environmental degradation, a wide variety of regulations, zoning among the most prominent, have been instituted to segregate and control them.

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[1] In addition to these three alternatives to zoning, planners and lawyers have suggested a great many others which amend some of the details. For example, there are time limitations which give advance warning of zoning alteration; there are the utility capacity limits characteristic of the development plans of the town of Ramapo, and the population growth management of Petaluma, California, both of which have engendered extreme legal and political controversy. See Scott (1975) for a complete survey of land use management techniques in the control of urban growth; in particular see Einsweiler, et. al. (1975) for a concise review of the major procedures in land use control.

[2] The standard textbook treatment is in Posner (1974; 138-139).

[3] The term 'ruinous competition' appears contradictory; nevertheless it has a long tradition in transportation economics. See Wilson (1957) for an examination of the concept.

The final area in which regulation has been widely advocated is in the allocation of common property resources. Economic theory indicates that resources owned in common (for example urban common spaces) will be exploited in a manner which reduces total welfare. In the case of a non-renewable natural resource such as oil, individual attempts to maximize personal gain, often implies that not only will the total income fall, but individual gains may also be curtailed; and in the case of renewable resources, the stock may be depleted so much that annual harvests are a fraction of their potential.

The Case for Deregulation

The major point in the deregulation position is that situations where regulation is commonly justified are overstated due to some misconceptions about the conditions of production and exchange inherent in natural monopoly and externality. It is argued that by amending the assignment of property rights it is possible to; 1) create markets which involve private planning, 2) avoid natural monopoly, 3) encourage the internalization of externalities and 4) eliminate 'excessive' competition.

The critique of natural monopoly regulation (Demsetz (1968b), Stigler (1971), Posner (1974)) emphasizes, that by respecifying the property rights granted to the natural monopoly firm and limiting them through periodic auctions for the right to serve, any economic rents due to monopoly may be eliminated. Presumably each bid for service rights would also contain fee schedules and other information to guarantee service once the right has been successfully acquired.

Of course there are many details that require elaboration (see Williamson (1976), Goldberg (1976)) and an extensive literature has arisen which questions whether auctions are effective in removing economic rent and eliminate the necessity for public vigilence to enforce contracts.[4]

With respect to externalities, Coase (1960) demonstrated that in the absence of transactions[5] costs and significant income disparities, the economic

[4]In particular, technological advances can substantially alter the shape and position of cost functions and induce either party to the franchise to attempt renegotiation. The uncertainty associated with technically advanced industries has prompted some to argue for time limited franchises (Posner, 1974). To some extent this eliminates the cost of self insurance (reflected in lower bids and higher service), but the periodic recontacting is not without cost.

[5]Transactions costs are ubiquitous in economics. It is tempting to cite them as the root of all inefficiency, yet the level of transactions costs critically determines the degree to which non market allocation is preferred over market allocative mechanisms. Following the seminal work of Demsetz (1968a) and Alchian (1969), transactions costs may be classified into three subsets. First, there are search costs of discovering the feasible set of opportunities. Second, are negotiation costs which is the cost of moving to an optimal allocation from the present endowment of market participants. Finally, there are contract enforcement costs associated with preserving the optimal position.

effect of a harmful public bad can be ameliorated in the private market. In particular, the allocation of resources (land-use) will be unaffected if the property owners compensate and bribe each other to moderate the deleterious effects through altered incomes. For example, if property owner A adversely affects the usefulness (in production)[6] of property owner B, the Coase Theorem asserts that the pattern of urban land-use will be unchanged (remain optimal) regardless of whether A is bribed by B to cease (A is compensated by B for the loss to A from ceasing) or whether B is compensated by A for the inconvenience (B is bribed by A to put up with the side effects). The Coase theorem indicates that the private market can indeed induce a series of payments to eliminate the economic consequences of the side effects, regardless of liability, as long as the above assumptions hold.

Buf of course, transaction costs are rarely negligible and income disparity is a persistent feature of market economies. The demonstration of games such as the prisoners' dilemma[7] underscore the relatively simple situations that result in sub-optimality when transaction costs are high. For this reason the Coase theorem has tended to remain a curio, albeit a useful one for illustrating the potential of private markets in externality control.

Finally, the common property resource problem may be eliminated, it is alleged, by allowing a private party to have ownership and charge for the use. For example, a park could be made private, with an entrance fee to recover costs. If several private parks in an urban area competed for patronage, then the private market planning process would ensure that optimal allocation prevails. Common property reserves have failed to receive the same treatment from deregulators as natural monopoly and externality; perhaps because the very high costs of organizing the market seem self-evident.[8]

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[6]The Coase theorem also implicitly assumes a unidimensional utility function with only a pecuniary (monetizable) objective.

[7]The Prisoners' dilemma refers to a situation where individuals who are separated attempt to maximize welfare by seeking individual maxima unaware that those decisions affect total and individual returns. The typical two person game shows that the attempt to maximize individual returns results in joint and individual welfare lowered due to infinitely high information costs.

[8]Conceivably a similar approach to public utility regulation might be employed. Prospective operators of common property resources such as an urban park could competitively bid for the right to provide park services. Presumably, these auctions would be periodic and accompanied by fee schedules. The state would have to enforce the contracts by ensuring the parkland was returned in proper order, that the fee structure was adhered to, to prevent the exploitation of quasi-rents and that sufficient bidders emerged to ensure a viable auction. Many would object to parks which charged a fee for a previously 'free' service and would argue that such charges have adverse income redistributive effects. Attempts to subsidize park services would add to the administrative burden assumed by the state. As always, the problem is essentially empirical and involves the comparison of efficiency/equity patterns between market and non-market resource allocation procedures.

III. Regulation and Urban Land-Use Policy

Land-use policy such as zoning attenuates the property rights of individual landowners under the assumption that, if left unchecked, a private system of land-use produces socially suboptimal patterns of growth, limits individual as well as total economic welfare and results in aesthetic offense. These results are due primarily to externalities, however inefficient entry due to limited information or natural monopoly is becoming of concern.

With respect to limiting entry in the case of natural monopoly a standard textbook case illustrates the effect of zoning in constraining inefficient entry.[9] The owners of a commercial dry cleaning plant desire to locate in a neighborhood shopping center. Planners argue that such activity can only be supported in a larger regional shopping center; allowing the dry cleaning plant to operate in the smaller center is inefficient, wastes resources and promotes excessive competition, or so it is alleged.

The proponents of freer land-use control argue that planning opinion is at best redundant and frequently considerably adds to the cost of urban development. In the case of the dry cleaning plant, as long as capital markets are functioning and reasonably efficient with risk averse lenders, then financing for an inefficient entry will be unavailable. In addition, assuming individuals are rational and have good information, there will be little motivation for entry into 'saturated' or poor markets. This position obviously rests heavily upon the assumptions of neo-classical rationality and market efficiency.

The debate between planners and those who argue for a deregulated land policy centres around the extent to which these two polar positions impact on efficiency and equity. Frequently these aspects are unrelated in the literature, although in land-use policy, inefficient planning practices can be discounted into the structure of land prices with consequent effects on wealth distributions.

Zoning and Efficiency

By imposing a land-use pattern, zoning has great potential for avoiding the costs of transacting involved in achieving an equilibrium pattern of side payments between individuals. In this regard, authoritarian directives are efficient. On the other hand, zoning, can also impose inefficient land-use patterns resulting in sub-optimal production and consumption. Neighborhood preservation schemes

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[9] Most planners and economists accept the use of zoning to control externalities, despite the rather inconclusive empirical results obtained by researchers who have attempted to measure the impact of externalities such as noise and air pollution on the structure of land values. See Maser et. al. (1977) and the literature cited for a recent example of these efforts. Of growing concern is the intimate relation between location and monopoly. Madelker (1962) is a comparatively early analysis of the use of zoning in controlling entry. Recently Ali and Greenbaum (1977) examine spatial monopoly in the banking industry and Hamilton (1978) presents an examination of zoning and housing prices.

which prevent multiple family construction, 'overzoning' for industrial or commercial activity and the zealous use of open space can often lead to disequilibria in the urban land market. In this way, zoning has potential for encouraging sub-optimal land-use patterns. Most importantly, zoning as a centralized planning process consumes public resources which are usually financed through a tax system, the incidence of which is unlikely to be exactly conformable to the beneficiaries of zoning.

Although zoning may encourage sub-optimal land-use because planners are misinformed about future demand and supply (private planners can and do make serious errors in judgment), and while it is undeniably a costly process, it does avoid the necessity for individuals to strike bargains among themselves. In other words, with zoning there is a partial shift in the incidence of the costs of planning from individuals to government, which may not be matched by the incidence of the benefits of zoning. Comparing the net benefits of this shift is the essence of the deregulation debate in urban land-use policy.

Zoning and Equity

Even though the potential costs of zoning are widely acknowledged, it is the potential for these costs to be translated into wealth redistributions that may be more socially significant. This misjudgment of a planner in zoning land may be reflected in a dramatic realignment of land values which can promote income and wealth inequality. To the extent that such redistributions have incentive effects, the original miscalculation may have important multiplier effects throughout the community. On the other hand, private land-use control systems which absorb significant income by virtue of protracted and involved negotiation between individual land owners also have potential for discouraging land investment.

Finally, zoning can also be used directly as a tool of racial discrimination, as a fiscal device to enhance property values and as a pre-expropriation procedure reduce 'fair market value.' Few dispute that zoning, as an equitable land-use control procedure, is subject to abuse; recently several interesting alternatives have been proposed that are alleged to be more efficient and create fewer instances of social injustice.

IV. Alternatives to Zoning

1. Restrictive Covenants

Since Siegan's article (Siegan, 1970) the use of restrictive covenants in Houston to replace zoning has received widespread attention. Rather than mandatory controls, externalities can be controlled by a series of covenants (agreements) between land owners which restrict various uses. These covenants are negotiated by the land owners and involve the partial exchange of property rights. For example, a prospective property owner may agree to some limitation on future land-use, provided of course that the asking price is correspondingly reduced.

Covenants could be difficult to institute after land-use has been in effect

for some period of time; negotiations may be costly and protracted. More common are restrictive covenants which are introduced by a developer requiring the home purchaser (in a planned unit development) to perform some regular duty (such weekly lawn mowing) or prohibiting the sale of property for the purposes of sub-division. Covenants between owners may be created for a wide variety of reasons ranging from petty annoyances with little economic consequence to the substantial attenuation of property rights. The success of tool depends critically on the degree to which externalities can be internalized through monetary exchanges.

One difficulty with covenants is that they are convenient procedures for excluding prospective homeowners, on the basis of race, sex or occupational status. Although economists can argue (and prove) that such discrimination produces a reduction in economic welfare, it is likely that such admonitions will be ignored. Consequently, despite their potential for securing efficiency, there is a distinct possibility that the highest and best use of land will not emerge if covenants alone are employed.

Yet another initial difficulty with covenants are the transaction costs of setting the scheme in motion and retaining it once the convenants have lapsed. The existence of a sophisticated brokerage system to transfer fee simple title portends the creation of an equally elaborate system of specialists to transfer covenants. The central question concerns the costs of the brokerage system in relation to the efficiency gain due to nonauthoritarian externality controls.

Unfortunately Siegan does not consider the transaction costs involved in initially creating the covenants and more importantly does not attempt to outline in detail the costs of continuing the covenant scheme once it has lapsed. He does point out the potential for zoning to misallocate land and does indicate that often the lapse of a convenant does not radically alter land-use, especially in areas where there is no economic pressure to redevelop. For urban areas which have already adopted zoning procedures, the conversion to a restrictive convenant process may be difficult.[10] Ignorance on the part of landowners creates the possibility that such a tool may be misunderstood. Also, the heterogeneity substantially increases negotiation costs. Finally, any new procedure is often subject to repeated legal tests. All of this indicates that the potentional rationalization of land-use through covenants could be partially or even totally offset by the increased transaction costs borne by individual owners. In all, covenants may be best suited to new areas where the urban canvas is unclut tered.

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[10] Siegan briefly mentions the problem of lapsed covenants. While citing the case of a district which has pressure for redevelopment due to perhaps to transportation developments, he acknowledges that 'Those who may be most adversely affected are the owners of homes backing up onto those on major thoroughfares' (Siegan 1970, p. 88). However, he dismisses the problem stating 'perhaps, the difficulty in accomplishing this (creation of new covenants) is not as great as might appear' (Siegan 1970, p. 90). (italics added)

2. Nuisance Law

Nuisance law extends the Coase theorem by assigning the liability for the externality to a particular parcel, which, most interestingly, need not be the property causing the externality. Attempted is a system of liability for damages consequent to the externality and a system of compensation that promotes land-use efficiency. Thus, in the event that the voluntary form of negotiation implicit in restrictive covenants fails, nuisance law is a more binding form of arbitration.

Consider two owners A and B. After a period of established ownership (either under a regime of zoning or restrictive covenants), A alters the land-use and causes B a loss (pecuniary or otherwise). It is customary to consider it A's responsibility (liability) to bear the costs and so injunctions to prevent the offensive activity are frequent. In the same way that 'first come, first serve' rules are not generally efficient or equitable pricing policies, so too, rules which require the creator of the externality to stop the activity altogether may not be desirable. Four guidelines to assign liability have been developed by Ellickson (Ellickson, 1973).

First, liability should be assigned to the land owner with the lowest information costs. In most cases this is the originator of the externality, although there are several instances where this is not so.[11]

Second, liability should be assigned to the land user with the lowest costs of organization. This implies that if a group of property owners all cause externalities to fall on a single property, then the liability could be assigned to the recipient of the side effects and not necessarily the originators.[12]

Third, liability should be assigned to those land owners who, because of their position or the technology of producing and consuming the externality, have the lowest costs of controlling the offensive use. Often too, this is not the originator of the externality.

Finally ceteris paribus, efficiency indicates that simple as opposed to complex liability rules are preferred.

There are four possible liability patterns: 1) injunction which stops the

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[11]An example would be property sensitive to certain proximate uses. Thus, a drive-in movie (to use the example of Ellickson) which seeks an injunction against an adjoining (and more recently constructed) race track because of interference from the lights may be refused on the grounds that the drive-in operation has special knowledge about the sensitivity of that land-use to certain adjacent uses.

[12]An example is an auto junk yard, located in a low lying area which causes aesthetic offence (and possibly danger to children) to the higher, surrounding residential area. Because the residential area is higher, it may be less costly for the residential owners to construct low fences to eliminate the visual blight, than the junkyard to construct a high fence or even a covered warehouse.

offensive activity without compensation; 2) a system of damages, without injunction in which the offending property owner compensates, either by lump sum or regular payments, all owners who face losses; 3) no liability is assigned, where damages are not awarded and injunctive relief denied; 4) injunctions are granted to the plaintiffs, however compensation must be paid to the defendant.

It is clear that a system of injunction without the possibility of compensating the defendant (rule one), or a system of no injunction and no damages (rule three) have great potential for reducing the economic welfare of the community. By giving the parties involved the choice between rules two and four, the possibility exists that the welfare of both parties will increase.

Nuisance law may be utilized in conjunction with zoning, where variances to the legal land-use are pursued through the courts. Alternatively, nuisances may be obtained in relation to restrictive covenants and variances to the covenants could be attached to the actual covenants as an amendment in exchange for financial consideration. The essence of the process is the application of the Coase proposition directly to land-use and, of course, success hinges directly upon the extent to which such monetary considerations truly do internalize the external effect. This is merely another way of arguing that transactions costs are critical to an evaluation of this particular deregulatory proposition. Nuisance procedures have potential for fine tuning land-use, but equally apparent is the potential cost of arriving at a pattern of liability and enforcing that assignment of property rights.

3. Transfer of Development Rights (TDR)

Transferable development rights offer a procedure whereby partial compensation is afforded both types of land owners and is really an extension of zoning rather than a clear alternative. An essential requirement for a TDR scheme is that the area in question must be experiencing redevelopment pressure. If there is also diversity of opinion about the advisability of such development, the imposition of planning directives contrary to the wishes of a large group of land users can be politically dangerous and will reduce the economic welfare of all.

The area in question, a transfer area, is first divided into a growth district and a preservation district. The preservation district has its zoning constrained while the growth district is permitted increases in possible land uses and structure types. This is where zoning normally ends; at this point those in the growth district sustain capital gains (windfalls), while those in the preservation district suffer capital losses (wipeouts). The core of the TDR idea is to confer upon each land owner in the preservation district a set of development rights, which must be purchased by owners in the growth district before development can occur. In theory, a partial transfer of development rights implies the partial development of the growth district. Only by purchasing all the development rights may the property owners in the growth district develop to the maximum limit.

In this way all property owners share in the higher uses, although the compensation afforded the land owners in the preservation area is likely to be

partial. The price of a development right is critical to the plan and proponents of this procedure have advanced two basic models.[13] First, the price of development right is set by the central authority that also administers the sale of rights. If the price is too high all development will be discouraged while if the price is too low the compensation provided owners in the preservation district is meagre.

The potential defects of an administered price has encouraged some to see development rights as a sort of 'warrant' attached to the property, but capable of being freely traded among the land owners in the transfer district. The exact mechanics of transferring development rights remain somewhat hazy with several important questions outstanding. Can development rights be purchased by anyone outside the transfer district? This would presumably increase their price requiring a higher rate of return from development. Of course, this would also increase the compensation afforded those in the preservation district. In the case of refusal to sell on the part of a significant majority of owners in the preservation district, would there by any redress on the part of the owners who wish to develop the growth district? For the most part,refusal to sell development rights is rational if one believes the present price to be too low. Some opponents of TDR schemes voice skepticism that many land owners could deal with the added complexity of trading these rights. Finally, in the event that only a partial exchange of rights were accomplished, and some owners in the preservation district failed to sell (either because of speculation or because they were attempting to constrain the projected development), the owners in the growth district may proceed with a partial development. Any increase in density or development may then be considerably delayed with the outstanding development rights falling in value. Such instances could considerably reduce the value of the technique as an urban planning tool.

Despite these practical matters which definitely require clarification, the main advantage of TDR is that limited development is permitted with partial compensation of those affected. The mechanics of the TDR scheme are critical to its success, however, in areas where there is intense pressure to redevelop and where land owners are reasonably sophisticated it has potential for avoiding some of the gross inequities perpetuated by zoning. As usual, the costs of the procedure are critical, and on this matter there is only very sketchy data.

V. Conclusion

Despite the growing importance of monopoly and inefficient entry (at least half of all retail and commercial ventures in Canadian urban areas fail within two years), the alternatives to zoning concentrate upon the creation of market

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[13] See Conrad and Field (1974) and Berry and Steiker (1977) for recent analyses of TDR schemes. Most writers are very circumspect about the structure, conduct and performance of the development rights markets. Also, many more subtle problems are not generally mentioned, such as setting the boundaries for the transfer, preservation and growth districts.

institutions which encourage the internalization of external effects in the private market; despite the weak empirical evidence that externalities create a problem. This paper has argued that while the more commonly examined schemes, restrictive covenants, nuisance law and transferable development rights, have potential to induce more efficient land-use, care must be taken to ensure that these efficiency gains are not absorbed by increased transactions costs imposed on individual land owners.[14] While the reduced costs of centralized planning agencies implied by deregulated land-use markets most desirably should be reflected in higher levels of service and/or lower taxes, it is also likely that inflation and financial constraints could well forestall this. Few land owners will appreciate the virtues of a decentralized land planning mechanism if lower taxes are offset by increased legal fees required to preserve their interests; unless the efficiency and equity gains are clear and ubiquitious, deregulation has little potential for success.

On the other hand, the use of centralized planning bureaucracies is widely believed to be inefficient, but, as many institutions discover during periods of austerity, the identification of 'waste' is arduous enough let alone any attempt at its removal. However, the transaction costs associated with private markets are, in principle, easier to isolate since the prices there are ostensibly observable. But in the land-use control, alternatives to zoning, outlined above, it is apparent that much of the costs are legal and these involve a combination of private agents (lawyers) who act within the framework of a publicly provided serice, namely the court system. Even the market portion of the transaction costs, i.e., the legal fees, could be difficult to ascertain and predict, since lawyers are notably loathe to publicize their fees.

In summary, empirical assistance to guide the choice of resource allocation mechanisms appears remote and little else can be suggested except that current experiments be closely monitored.[15] Those who argue for a decentralized

[14]Hirsch (1977) has a good discussion of the efficiency of several common land controls such as large lot zoning, density restrictions and building permit restrictions. While his treatment concentrates upon the relative efficiency of centrally directed land-use policy, this paper has attempted to outline some of the pertinent issues involved in comparing alternative institutions--namely, the choice between centralized versus decentralized land planning. Also Tarlock (1975) examines the amendment of zoning and does cite transactions costs as a problem, but he fails to scrutinize the deregulatory process in detail and accordingly does not develop precise views of the problem.

[15]The recent literature on zoning which examines the problem from the new urban economics perspective is clearly a step in the appropriate direction. The work of Mills and Oates (1975), M. J. White (1975) and Hamilton (1978) are representative of this thrust. Noteworthy is Hamilton's attempt to quantify the impact of housing prices of restrictive zoning, since the writers in this area are clearly interested in positive rather than normative theory. As Hamilton's article indicates though, there are many problems. Median house price is related to various structural attributes of housing, distance parameters and a 'zoning concentration index' which is defined as a ratio of municipalities

land-use allocation scheme must also be prepared to sanction considerable scrutiny of the incomes of market intermediaries as a safeguard that any efficiency and equity enhancement through improved land-use is not eliminated through both an increase and redistribution of transaction costs associated with decontrolled markets.

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in an SMSA over total population in the SMSA. The basic sample is a cross section of 13 U.S. cities for the year 1960 and the results are very weak with the zoning concentration index only significant in explaining vacancy rates in the rental market and quite insignificant in explaining house prices. Unfortunately Hamilton does not consider multicollinearity or simultaneous equation bias, which there are strong a priori grounds for supposing exist in this model. Nevertheless the directions of this new research are clearly promising.

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