
Richard S. Markovits

Public Policy Analysis From an Economic, Political-Economic, and Ethical Perspective

Ich habe in diesem Jahr zwei Bücher und einen langen Aufsatz geschrieben. Das erste Buch analysiert die rechtlichen und wirtschaftlichen Lenkungsmittel, die zur Zeit benutzt werden, um die Ortswahl und Siedlungsdichte für Einzelhäuser und Wohnsiedlungen zu beeinflussen. Ich schlage die Schaffung einer zentralen Bauleitkommission und die Steuerung der Entwicklung durch gleitende Steuersätze vor, die wohlhabende Vororte (entsprechend der Regelungsstrenge ihrer Bauleitplanung) und Bauunternehmer in armen Stadtzentren und Vororten (entsprechend der Dichte ihrer Bauprojekte) unterschiedlich belasten würden. Das zweite Buch analysiert verschiedene Formen von predatory conduct aus juristischer und rechtspolitischer Perspektive. Der Aufsatz schließlich untersucht Wesen und rechtspolitische Bedeutung der Beziehung zwischen unvollkommener Konkurrenz und kostensenkender Produktionsforschung. Alle drei Arbeiten reflektieren mein Bestreben, mikro-ökonomische Fragen in einer Weise zu untersuchen, die nicht nur volkswirtschaftlicher allokativer Effizienz, sondern auch ethischen, politischen und rechtstatsächlichen Gesichtspunkten gerecht wird.

During the course of this year, I wrote two books and a lengthy article analyzing various public policy issues from an economic, political-economic, and ethical perspective. The first book, entitled *Putting Us in Our Place*, undertook an economic, political-economic, and ethical evaluation of large lot zoning and other forms of residential-location and housing project-density controls and proposed the creation of a central zoning commission that would regulate these matters primarily by levying appropriate taxes. Specifically, such a commission would operate by levying taxes both on well-to-do elite or leap-frog suburbs, which are likely to impose excessively strict standards (given their political economies), and on developers in central cities and run-down close-in suburbs, which are likely to impose excessively lax standards (given their political economies). The second book, entitled *Predatory Conduct - A Policy and Legal Analysis*, undertook a policy and legal analysis of predatory pricing, predatory refusals to deal (individual and group boycotts), predatory full requirements contracts, predatory product innovation, and allegedly predatory systems rivalry. The third study, a substantial article entitled *Monopoly, Production Process Research, and Public Policy: A Distortion Analysis*, analyzed whether the case for pro-price competition policies, price regulation policies, and various types of production process research

subsidies is strengthened by the relationship between market structure and the allocative efficiency of production process (cost-reducing) research decisions. A summary of each of these research projects follows.

I. Putting Us In Our Place

Since the early 1970s, a general increase in environmental concerns and the coming-of-age of the children born in the post-war baby boom have led suburban governments to impose increasingly strict controls on residential construction. Temporary moratoria on new growth, residential construction quotas, taxes or charges on developers, and minimum acreage restrictions have all been imposed to limit population growth in the suburbs that ring urban centers. Such controls have had very considerable effects on the allocative efficiency of population location decisions in urban areas and have caused substantial redistributions of real income among the various metropolitan groups they affect (suburban homeowners, owners of undeveloped suburban land, developers, tenants in and prospective movers to suburban areas, and all these groups' counterparts in both the central city and the leap-frog suburbs). Suburban growth controls have substantial consequences, and their presence raises important issues of intergovernmental relations - of metropolitan or state-wide planning.

This book analyzes both suburban growth controls (in particular - minimum acreage or large lot zoning, which close-in suburbs often employ to establish minimum amounts of land on which individual homes or larger residential projects must be built) and such urban counterparts as building-height restrictions and set-back requirements. The analysis is developed in six parts. Part I delineates and analyzes the various economic imperfections that would tend to distort individual incentives and lead individuals to locate in an allocatively inefficient pattern in a metropolitan area if none of its governmental units attempted to control its potential residents' location choices and argues that from the perspective of allocative efficiency too many (poor) people would locate (1) in elite and leap-frog suburbs instead of central cities and run-down close-in suburbs and (2) in elite suburbs instead of leap-frog suburbs if no public authority tried to control residential construction and location decisions.

Part II then analyzes the ability of toll systems in general to correct the associated tendency of marginal locators to make allocatively inefficient choices to reside in close-in-suburbs. In particular, it argues that if perfect information were freely available the set of tolls that would be ideal from the perspective of allocative efficiency would just offset the artificial

incentives all the various relevant imperfections would give marginal locators to locate in the area in question *if location decisions were allocatively efficient* – the *extra* externalities *the ideal marginal locators* would generate in the relevant area *plus* any shortfall in the private commuting costs they had to incur *plus* any allocatively artificial incentives the surrounding communities' maximizing and redistributive public service, pricing, and tax policies would give them to locate in the area in question. In practice, the individual members of the ideal set of tolls will vary from suburb to suburb, from project to project and from locator to locator.

Part III then analyzes the implications of these conclusions for the allocative efficiency of large lot zoning in particular and project-density controls in general. Specifically, Part IIIA analyzes the potential of large lot zoning restrictions and other forms of density controls that vary from location to location to be allocatively optimal. Part IIIA argues that systems of this type may be optimal because they impose variable tolls that offset the distortions that would otherwise bias the decisions both of housing consumers choosing locations and housing attributes and of developers choosing the types of units they wish to supply. Put differently, Part III argues that because project density will be strongly correlated in many areas with the real and fiscal externality-proneness of project locators and the presence of other externality-prone-attributes of the housing units themselves, zoning commissions operating in such areas may be able to increase efficiency by using one policy instrument (project-density controls) to control three policy variables (project-density, locator real and fiscal externality-proneness, and actual-housing-attribute externality-proneness).

Of course, especially in the United States, where minimum acreage requirements are set by local authorities, large lot zoning is unlikely to be designed to maximize allocative efficiency. In particular, Part IIIB argues that, since established homeowners will normally be in power in elite close-in suburbs, their interest in establishing minimum acreage requirements that are excessively high from the perspective of allocative efficiency will normally be determinative. Part IIIB also argues that since the political economy of leap-frog suburbs is probably similar to that of close-in suburbs, since similar distortions will be affecting the incentives of well-to-do suburbs in the other metropolitan areas to which people might move, and since developers are more likely to be in control of central-city and run-down close-in suburban decisionmaking, the growth controls engendered by the distortions in the incentives of those in control of well-to-do suburban governments in a given metropolitan area are likely to lead locators who are inefficiently excluded from elite and leap-frog suburbs to locate in the central city or a run-down close-in suburb in the same metropolitan area rather than to leave that metropol-

itan area altogether for either another metropolitan area or a rural setting. Since the present system of density controls also probably leads people to mislocate in leap-frog suburbs and medium-quality close-in suburbs when it would have been more efficient for them to locate in an elite suburban community, Part IIIB concludes that our present system of locally-created zoning standards seems likely to produce precisely the opposite kinds of misallocations to those that would be generated by an unregulated market.

Part IV then delineates my own recommendation for controlling residential construction and location decisions. In particular, Part IV explains why allocative efficiency may be maximized by a dual system in which (1) local authorities are authorized to impose minimum acreage restrictions (and such urban equivalents as building-height restrictions and set-back requirements) but (2) a metropolitan or state-wide zoning (tax) agency is created to influence either the decisions these local authorities make or the consequences to which they lead. More specifically, Part IV analyzes the desirability of a mixed approach in which such a zoning (tax) commission is empowered to increase allocative efficiency and overall welfare in three ways: first, by inducing the elite and leap-frog suburban authorities that are attempting to impose minimum acreage requirements that are excessively strict from the perspective of allocative efficiency to relax their requirements by forcing them to pay taxes that vary with the excessiveness of their restrictions - taxes that are designed to offset the distortions biasing the incentives of the antidensity forces that were originally in political control in the relevant communities; second, by circumventing the central city, run-down close-in suburban and medium-quality suburban authorities that are employing zoning standards that are too lax from the perspective of allocative efficiency by imposing taxes on (re)developers - taxes that are designed to offset the incentive distortions that would otherwise enable them to profit by taking advantage of the relevant community's excessively lax standards; and third, by overriding the zoning decisions of the medium-quality close-in suburbs that are employing standards that are too strict with zoning standards of its own. Part IV argues that this mixed centralized zoning-centralized zoning tax approach is likely to be more allocatively efficient than a system in which a metropolitan or state-wide agency simply imposes zoning standards on all local communities because the taxing approach will enable outside critics as well as the agency on its own motion to improve its tax schedules (and performance) by putting it in a position to discover information that is relevant to the determination of the optimal zoning standard by observing the way in which the relevant communities or developers respond to its taxes. In fact, as Part IV shows, a central zoning commission that employs taxes may even be able to improve its performance by initially

employing experimental benefits-measuring taxes - i.e., by substituting such taxes at the outset for the kinds of distortion-offsetting taxes described above.

Of course, the overall desirability of any governmental policy (or individual choice) does not depend exclusively on its allocative efficiency: dollar gains and losses have to be weighted according to the distributive values of the evaluator and care must be taken to see that no one's rights are violated. Part VA therefore analyzes the distributive and overall desirability of the proposals just described. In particular, Part VA analyzes the distributive impact of the centralized zoning-centralized zoning tax approach by comparing its consequences not only with those of straightforward centralized zoning but also with those of the present system of locally-controlled zoning and a »pure« market system in which all growth controls were prohibited. Evaluations are made from a variety of value perspectives: utilitarian and egalitarian perspectives that disvalue policies to the extent that they injure the poor; a liberal perspective that disvalues policies to the extent that they increase the number of people whose material welfare is insufficient for them to be able to take their lives seriously in the liberal sense; a libertarian perspective that disvalues policies to the extent that they enable some people to consume more resources than their contribution to others entitles them to consume (*inter alia* by enabling them to do more damage to others than others do to them); and a second liberal perspective that disvalues policies to the extent that they enable some to benefit by indulging their prejudices and leave others to suffer because they are targets of prejudice. Part VA concludes that from all the above value perspectives some version of the centralized zoning-centralized zoning tax package I have proposed will be superior overall to any of its listed alternatives.

Unfortunately, even if there were no insuperable intellectual barriers to a zoning (tax) commission's improving residential construction and location policy, incompetence and political corruption might still prevent it from doing so. Part VB therefore analyzes the risk that this approach would not work in practice and makes various personnel and procedural recommendations that are designed to reduce this risk to an acceptable level.

Finally, Part VI compares my analysis and conclusions with those of the best existing article on this topic - Bob Ellickson's *Suburban Growth Controls: An Economic and Legal Analysis*, 86 *Yale L.J.* 385 (1977). Part VI demonstrates that my analysis (1) differs from Ellickson's in several critical respects, (2) calls into question the utility of the judicial damage remedy Ellickson recommended as well as the ability of judges to implement his approach, and (3) suggests the superiority of the administrative centralized zoning and zoning tax approach I have recommended.

II. Predatory Conduct: A Policy and Legal Analysis

This book defines the concept of predatory conduct, analyzes the legality of such behavior under the relevant American antitrust law (the Sherman Act), investigates the allocative efficiency and overall desirability of both predatory conduct and its prohibition, delineates the way in which predatory pricing claims should be adjudicated under existing law, and defines and/or comments on predatory investments, predatory refusals to deal, predatory full requirements contracts, and allegedly predatory »systems rivalry.« The analysis is developed in four parts.

Part I is concerned with the nature, legality, *ceteris paribus* allocative inefficiency, and possible allocative efficiency of predatory conduct. Part IA defines the Sherman Act test of legality and the concept of predatory conduct and shows that (with one minor exception) predatory conduct will always violate the Sherman Act. Then, Part IB explains why the facts that make conduct predatory tend to make it inefficient - i. e., imply that its profitability will tend to be artificially inflated so that it would be inefficient if no other relevant net distortions were present in the economy. Next, Part IC explains why the other distortions that are present in the economy may make individual acts of predatory pricing allocatively efficient to illustrate the proposition that other imperfections may make any kind of predatory act allocatively efficient in the real world.

Part II analyzes the allocative efficiency and overall desirability of preventing predatory behavior. More specifically, Part IIA analyzes the allocative efficiency case for preventing rather than allowing all predatory acts on the assumption that no antitrust transaction costs would be generated. Part IIB then analyzes the efficiency gains that would be produced by a more realistic, partially effective attack on predatory conduct. Following that, Part IIC explores the possible allocative efficiency of introducing an allocative efficiency defense in predatory pricing suits that would allow perpetrators to escape liability when the other net distortions present in the system made their predation allocatively efficient. Part IID then investigates the distributional and overall desirability of preventing all or some predation and of allowing all allocatively efficient predation. And, finally, Part IIE analyzes the significance of the preceding analysis for the way in which an antitrust agency with a limited budget should set its predatory pricing priorities.

Part III analyzes the way in which courts should adjudicate predatory pricing suits. In particular, Part IIIA makes some general recommendations about the way in which various burdens of proof should be allocated in predation cases. Part IIIB then makes some operational proposals about the way in which predatory pricing cases should be structured and the way in which predatory pricing will have to be proved. In particular,

after Part IIIB1 explains why predatory pricing may be profitable in some circumstances, Part IIIB2(A)(1)(a) explains why it will be very difficult to assess the predatory character of a seller's price by making a straightforward showing that his actual price is lower than his lowest legitimate price and Part IIIB2(A)(1)(b) explains why one cannot short-cut this process by assuming that prices below marginal cost are predatory, by establishing a rebuttable presumption that prices below average total cost are predatory, and by assuming that prices above average total cost are not predatory. Part IIIB2(A)(2) then delineates three comparative methods that will sometimes enable adjudicators to reduce the cost of assessing the predatory character of a seller's prices. In particular, after explaining why it is not legitimate to presume predation or infer a substantial likelihood of predation from the fact that a (dominant?) seller significantly or fully reversed a price cut within two years of having made it, Part IIIB2(A)(2) explains why and when adjudicators who take into account the various legitimate factors that could make the relevant prices differ will be able to draw legitimate inferences by comparing the prices the defendant charged the same customers at different times, by comparing the prices the defendant charged different buyers at the same time, or by comparing the prices the defendant and other sellers charged different customers. Part IIIB2(A)(3) then explains the circumstances in which courts will also be able to draw inferences about the likelihood that a given seller's prices were predatory from behavioral evidence establishing that the defendant had engaged in other sorts of activities (for example, had issued threats or engaged in predatory refusals to deal) which are likely to accompany predatory pricing as well as from »structural« evidence indicating that the alleged predatory pricing was likely to be profitable. Following that, Part IIIB2(B) delineates my conclusions about the appropriate way to try predatory pricing cases. In particular, Part IIIB2(B)(1) explains why one should not evaluate adjudicatory approaches in conventional cost-benefit terms, and Part IIIB2(B)(2) explains why the preceding analysis implies that one should not adopt a two-tier approach to such cases that requires the state or a private plaintiff to submit structural evidence establishing the potential profitability of the alleged predation before it can put in other sorts of evidence bearing on the predatory character of the defendant's pricing. In brief, the two-tier approach is rejected for two reasons in favor of an approach in which such structural evidence can either be omitted altogether or submitted along with the other kinds of evidence described above: (1) structural evidence is far more complicated and expensive and far less reliable than the supporters of the two-tier approach seem to believe and (2) structural evidence reduces the cost of the other techniques I have described far less than others seems to suppose.

Part IV then deals with various other types of conduct that either can be

or have been alleged to be predatory. First, Part IVA develops a »critical monopolistic investment incentive« definition for the concept of a predatory investment in product or distributive quality or variety; explains why, unlike the »extended limit investment« definition others have proposed, it is consistent with the Sherman Act's concept of monopolization; delineates the ways in which businessmen and courts should determine whether a QV investment is in fact predatory; and examines the allocative efficiency, distributional, and democratic process gains that will be generated by policies that reduce predatory QV investments. Then, Part IVB shows that individual as well as group refusals to deal may very well be predatory and demonstrates that sellers may very well find it profitable and possible to organize *de facto* predatory refusals to deal by inducing their customers to enter into predatory longterm full requirements contracts. Finally, Part IVC explains why the kind of behavior that has recently been termed predatory »systems rivalry« is not in fact predatory, as has been alleged.

The Conclusion compares the preceding analysis with my previous work on oligopolistic pricing and comments on the more general lessons these two studies have to teach. I argue that in one direction these studies reveal the dangers of trying to simplify antitrust analysis while in the other they demonstrate the usefulness of the more complicated conceptual systems they employ - the ability of these systems to help the analyst (1) to answer old questions more effectively than would otherwise be possible and (2) to pose and address new questions that are well worth the asking.

III. Monopoly, Production Process Research Misallocation, and Public Policy: A Distortion Analysis

For more than the past two decades, there has been a substantial debate over the possible tendency of product-market monopoly to reduce production process (cost-reducing) research (henceforth PPR) to allocatively sub-optimal levels. For the most part, the debate has focussed on two separate issues: (1) the possible *ceteris paribus* tendency of monopoly to artificially deflate the incentive to do PPR that relates to the monopoly's production process - *i. e.*, to reduce such incentives below allocatively efficient levels - by reducing the unit output whose costs any resulting PPR discovery would decrease (the monopoly-unit output issue) and (2) the tendency of monopoly to affect the ability of various categories of production process researchers to appropriate the allocative benefits their PPR discoveries do generate (the monopoly-appropriation issue, which can be analyzed only by listing the various other factors that may cause

the private certainty equivalent returns to PPR to differ from their allocative counterparts and examining the relationship between the product-market structure and the factors in question).

This article focusses primarily on the first of these issues and on a third (admittedly less important) issue that the literature has so far ignored – *viz.*, the tendency of a given monopoly to distort incentives to do PPR that relates to other industries' production processes by distorting both the cost of the resources such research employs and the cost of the resources any resulting discoveries save. However, a final section makes some comments on the monopoly-appropriation issues just referred to as well as on their significance for the question with which this article is ultimately concerned: is the allocative efficiency case for policies that will increase the competitiveness of prices or subsidize PPR strengthened by the likely effect of monopoly on production process research?

The analysis is developed in six parts. Part I explains why the issue on which many of the participants in this debate have focussed is largely irrelevant – *t. e.*, why nothing directly turns on whether production process research is less profitable for a monopolist than for his perfectly competitive counterparts. In particular, the allocative efficiency case against monopoly would not be strengthened by a demonstration that production process research (PPR) would be less profitable for a monopolist than for his perfectly competitive counterparts – *i. e.*, by a demonstration that an industry would be likely to do less production process research if it were organized monopolistically rather than competitively – because the fact that a monopolist's unit output is lower reduces not only the private value of a PPR discovery to him but also the allocative value of the PPR discovery in question. In other words, such a demonstration would not be decisive because *ceteris paribus* the crucial question is not whether the monopoly *reduces* the monopolist's incentive to do PPR but whether it *distorts* both his incentives and the incentives of others to do such research.

Part II then delineates the basic structure of the distortion analysis approach that this article uses to investigate both the connection between monopoly and the allocative efficiency of PPR and the policy significance of that connection. More specifically, Part II defines the basic concepts of distortion analysis, delineates and justifies the principles that will guide such an analysis, and explains the policy significance of any tendency of monopoly to distort various PPR incentives in different circumstances.

Part III then applies this structure to a simple case in which a single monopoly is present in a world whose only other possible Pareto imperfection is the gains the PPR discovery may generate for buyers of the product whose production cost it reduces on the assumption that quality-or-variety-increasing (QV) investment (*i. e.*, the set of product types) is

fixed. More specifically, Part III uses this approach (1) to explain why in this case such a monopoly would misallocate resources by *distorting* the production process research incentives of both the monopolist and his factor market competitors - *i. e.*, by creating a divergence between the private profitability and allocative efficiency of these parties' PPR - and (2) to analyze the significance of this tendency of monopoly to distort PPR incentives for the allocative efficiency of deconcentrating or regulating the monopoly in question in the situation concerned.

Next, Part IV relaxes the assumption that the economy contains only one monopoly. More particularly, Part IV investigates the ways in which a realistic number of monopolies would distort PPR incentives in a world whose only other Pareto imperfection was the possible buyer gains described above on the continuing assumption that the economy contained a fixed set of product types. Correlatively, Part IV also analyzes the extent to which in such a world the allocative efficiency case for deconcentrating monopolies or subjecting them to various kinds of price regulation would be strengthened by the impact of such policies on PPR misallocation.

Part V then relaxes the assumption that the set of product types produced by the economy will not be affected by the intensity of competition. More particularly, Part V analyzes the way in which our analyses of both the connection between monopoly and PPR and the policy significance of this connection must be adjusted to reflect the variability of QV investment - its dependence on the intensity of both price competition and QV investment competition.

After that, Part VI relaxes our remaining unrealistic assumption about the various other types of Pareto imperfections in the economy. More specifically, Part VI explains (A) why the private profitability of PPR might be distorted even if no monopoly-unit-output problem were present, (B) the connection between such other distortions and the structure of the product market involved, and (C) the significance of these other distortions for the overall effect of monopoly on the allocative efficiency of PPR.

Finally, the Conclusion analyzes the policy significance of the preceding analysis. It argues that although the appropriability problem and the monopoly-appropriability connection make it difficult to establish clear-cut results, there probably are grounds for concluding that, even in our worse-than-second-best world, the allocative efficiency of antitrust or regulatory policies that increase the competitiveness of prices is increased by their effect on PPR (*i. e.*, their tendency to increase PPR). For similar reasons, the Conclusion also suggests that this study also provides support for tax policies that are designed to encourage production process research and, to some extent, plant modernization. However, our analysis makes it clear that the efficiency case for such policies presupposes that

they be carefully designed and implemented to prevent them from subsidizing quality-or-variety-increasing (QV) investments: although from the perspective of allocative efficiency too little of both PPR and plant modernization may be done in capitalist economies, our analysis implies that QV investment is almost certainly too high in such economies.