

**PRELIMINARY DRAFT:**

**TOWARD A THEORY OF STATE-OWNED PROPERTY RIGHTS**

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## ABSTRACT

Most state ownership of property is analogous to private property but for the identity of the owner. Using Demsetz's classic article on the evolution of private property as a model, this Essay makes preliminary observations about the evolution and relative merits of state ownership.

Analogizing the state to a firm, we note that state-owned property is potentially advantageous where partial internalization can prevent overuse or wasteful use of the asset, while the transaction costs involved in state management of the resource are relatively low. However, where state-owned property is not used for the provision of state services, it is likely that state ownership involves unnecessary agency costs. Additionally, state-owned property is vulnerable to the under-utilization and suboptimal use of resources characteristic of anticommons. Political management of state owned resources potentially permits multiple political actors to block efficient uses of the property, while raising excessive transaction costs for potential users. Managers of state-owned property may also underutilize the state's rights of exclusion, leading to overuse characteristic of commons property.

Finally, we show that state ownership is likely to be chosen over the alternatives when it creates localized gains that exceed the losses experienced by the relevant interest groups. In the benign case, state-owned property offers a lower-transaction cost means of managing exclusionary rights, due to, for example, economies of scale. In the less benign cases, state-ownership of property brings a net social loss, but is attractive because an interest group is able to capture a profitable use of the property more cheaply than it would in the private sector.

JEL H11, H30, H40, H49, H82, K11

This is a preliminary (and skeletal) draft prepared for a session of the 16<sup>th</sup> annual conference of the International Society for New Institutional Economics (2012) in honor of Yoram Barzel. The paper is at a very early stage, and we welcome your suggestions and criticisms. References are incomplete. We ask that the draft not be quoted or cited at this stage.

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## I. Introduction

Much of the world's property is owned by the state. Sometimes the state-owned property is "open access," i.e., unrestrictedly available for public use. But more often, the state ownership of property is analogous to private property with one significant difference: the identity of the owner. Given the importance of state-owned property, one might expect that a major preoccupation of property theorists would be to determine when state-owned property has been or ought to be preferred over private property. Yet, that is not the case.

This Essay aims to begin a discussion among property theorists of the relative merits and demerits of state ownership, and offer some suggestions about when state ownership of property might evolve. Our reference point is the vast literature launched by Harold Demsetz's classic article on the evolution of private property and its relative merits with respect to commons property (Demsetz (1967)). Specifically, we seek to explore the road not taken by Demsetz, and evaluate state property as a distinct option.

In his classic *Towards a Theory of Property Rights*, Harold Demsetz explores the conditions that give rise to private property rights. Demsetz hypothesized that communities would abandon open-access regimes ("communal ownership," in his terminology) in favor of private ownership when it becomes economically efficient for the private owners to "internalize" the externalities created by communal ownership. To illustrate his thesis, Demsetz wrote of hunting grounds of Native American tribes in Labrador in the early years after the arrival of European colonists. As Demsetz explained, prior to the European colonization, communal ownership was an efficient way to manage hunting grounds because the value of the fur in hunted animals was low. In pre-colonial times, the externalities caused by wasteful hunting habits were of a magnitude too low to concern society. Once the value of the furs rose due to

French fur traders, the magnitude of negative externalities created by wasteful hunting practices became significant. At that point, it was efficient for the community to transition from communal ownership to private ownership of hunting grounds.

Demsetz admitted that his analysis was incomplete in one very important respect. Demsetz identified not two but three basic kinds of “idealized ownership” for managing resources. The two on which Demsetz focused were communal ownership and private ownership. But Demsetz acknowledged that there was a third kind of idealized ownership: state ownership. In Demsetz’s definition, state ownership is like private ownership, save for the fact that the state owns the property rather than a private individual. In Demsetz’s words, “[s]tate ownership implies that the state may exclude anyone from the use of a right as long as the state follows accepted political procedures for determining who may not use state-owned property.”

State-owned property is obviously extremely important for a property rights analysis. Even in market economies, a vast portion of societal resources are under state ownership. In the United State, for instance, one quarter of the land in the country is under state ownership. Some advanced market economies have far more state-owned land. Fifty-eight percent of Singapore’s land is owned by the state. In Israel, the state owns nearly four fifths of the land. Of course, state ownership is not restricted to land. To varying degrees, all the states of the world own assets ranging from small chattel to large state enterprises.

Demsetz acknowledged that “[s]ome communities will have less well-developed private ownership systems and more highly developed state ownership systems.” But without gainsaying the potential importance of state property, Demsetz announced, “I shall not examine in detail the alternative of state ownership.” Demsetz sufficed with the speculation that communal tastes may account for the relative proportions of private and state ownership of resources.

For the most part, the vast literature on property rights created by property theorists to date has reflected Demsetz's preoccupation with private and communal property. Many researchers have refined Demsetz's basic categories of private ownership and communal ownership, adding such additional possibilities as true open access and semi-commons (mixed private ownership and communal ownership). Others have accepted the basic dichotomy between communal and private ownership and challenged Demsetz's claims about the relative flaws and benefits of the two basic ownership types. Demsetz's basic framework for evaluating private and communal ownership's relative attractiveness has been challenged at both ends. Scholars such as Elinor Ostrom (Ostrom (1990)) have written of the possibility of efficient management of communally owned property, due to the disciplining effects of social norms or other factors. At the same time, scholars like Michael Heller have challenged the efficiency of private ownership in cases where private ownership rights are divided among too-many owners. In such cases, writes Heller, an excessive number of veto rights can cause resources to be underused.

Among property theorists, little property rights analysis has focused on the potential attractiveness and flaws of state ownership in comparison to private and communal ownership. This Essay seeks to move the property literature in the direction of the road not taken by Demsetz.

It is important to note at the outset that our examination of the role of the state is limited to property rights in assets held under state ownership. The state potentially plays other critical roles regarding property rights, both as a potential regulator of the exercise of communal and private rights, and as an allocator of such communal and private rights. Obviously, these roles

are extremely important to any analysis of the state. However, they lie outside the scope of our inquiry.

As well, we must note that there is a vast economic literature on the related issue of privatization of state assets. Numerous empirical studies have examined the performance of privatization efforts, of various sizes and scope, and even of entire economies in the formerly communist bloc. Scholars have also probed privatization more abstractly, exploring the relative bounds and merits of state and private provision of services. Obviously this literature touches on concerns quite close to those of ours, although our concern is with the ownership of assets rather than the provision of services. The distinct nature of our inquiry can be illustrated by considering the special case of state-owned assets that are not used in the provision of state services, such as state ownership of land reserves.

In this Essay, we explore state-owned property primarily in three dimensions.

First, and most importantly, we examine the relative advantages and disadvantages of state ownership of property rights. We show that state-owned property rights can be analogized to property rights owned by firms or other private sector orderings that mimic individualized private property rights, even as ownership is divided among many firm owners. State-owned property is thus potentially advantageous where, on the one hand, partial internalization of the costs and benefits of the property is valuable as a way of preventing overuse or wasteful use of the asset, while, on the other hand, the transaction costs involved in state management of the resource are lower than those of private ownership. Conversely, where state ownership offers no transaction cost advantage over market transactions—which is particularly true where the state does not utilize the asset to provide state services—state ownership has no distinct advantages

over private property, while being subject to the usual disadvantages of ownership by a firm when compared to ownership of an individual.

Second, we explore the ways state ownership is prey to the flaws seen in private ownership and communal ownership. Even more than private property, state-owned property is vulnerable to the under-utilization and suboptimal use of resources characteristic of anticommons. Political management of state owned resources potentially creates a multiplicity of political actors with exclusionary rights who can block efficient uses of the property, as well as the possibility of excessive transaction costs for potential users. At the same time, managers of state-owned property often underutilize the state's rights of exclusion, leading to the ill-effects of commons property, where resources are overused, or misused.

Third, we explore the circumstances under which communities are likely to choose state ownership over the alternatives. Here too, our analysis focuses on transaction costs. We show that state-owned property is attractive when it creates localized gains that exceed the losses experienced by the relevant interest groups. This may be because the interest groups can capture gains while externalizing costs to others for whom interaction with the political system is not cost-effective. Or, it may be because the gains to the interest groups outweigh the costs absolutely. Thus, sometimes state-owned property can arise for destructive reasons as well as benign ones. In the benign case, state-owned property offers a lower-transaction cost means of managing exclusionary rights, due to, for example, economies of scale. In the less benign cases, state-ownership of property brings a net social loss, but is attractive because an interest group is able to capture a profitable use of the property more cheaply than it would in the private sector.

Our Essay unfolds by developing each of these three insights. In Part II, we analogize the ownership of property by the state to ownership by a firm. In Part III, we examine some key

features of state-owned property, with a particular focus on its vulnerability to phenomena associated with anticommons. In Part IV, we examine the dynamics of examine the emergence of state property. In Part V, we draw some conclusions.

## II. State Property as Firm Property

When is it efficient for the state to own assets?

One way of examining the issue is by viewing the apparatus of the state as a firm making the classic decision to “make or buy.” Ronald Coase’s view of the firm (Coase (1937)) sees the firm as an institutional setting in which transactions are carried out in place of the wider market. Intra-firm transactions bear different costs than those of market transactions, and the differences in transaction costs determine whether the firm should make or buy inputs. The make or buy decision is easiest to see in relationship to services. Should the firm hire accountants to keep its books, or should it outsource the work to an accounting firm? The decision should ultimately rest on the costs of the firm’s supervision of internal accountants, compared with the costs of identifying and contracting with accountants outside the firm.

There is an alternative way of viewing the nature of the firm that can be equally applied to state-owned assets. A vast literature, often traced to Berle and Means (1932) focuses on the corporation’s separation of ownership over assets (in the hands of shareholders) and control over the assets (in the hands of managers). Together with rational apathy, the desire for diversity of investment risk, and differences in management abilities, economies of scale in decisionmaking make it worthwhile for shareholders to yield control over the assets they own to the managers of a firm.

State-owned assets used in the production of state-provided services can clearly be analogized to firm-owned property. When the state provides postal services, for instance, it faces



the usual make or buy decisions of any institution. Just like a private firm, the state must determine whether it is more cost effective to own its own warehouses, or, in the alternative, to contract for their use. In contrast to much of the privatization literature, we assume for purposes of our examination that the state provision of services is a given, and the make or buy decision is thus unrelated to the question of whether the services ought to be provided by the state altogether.

As is usual with make-or-buy decisions, it is difficult state categorically that one or the other outcome is to be systematically preferred. The cost-effectiveness of in-sourcing or outsourcing depends on many factors, including internal management efficiency and production efficiency, the competitiveness of the market, the costs of monitoring and many others. Assuming that the state should provide postal services, is it better for the state to own its post offices or merely to rent them? No universal answer can be given. The relative costs of property management inside and outside the postal organization depend on the effectiveness of supervision, impact of competition, economies of scale and numerous other factors. In any given case, the preferred choice is an empirical question.

Importantly, not all state-owned property is used for the provision of state services. In many cases, the state owns assets that it does not use. Sometimes the state owns the asset in order to hold it open for public use under an open access regime. For instance, the United States government, and the individual states, own vast amounts of park lands that are held open to the public for recreational uses, as well as some other uses such as harvesting timber and mining for minerals. In some cases the state owns property rights that are less than full title, such as navigational easements in certain waters, that are, in turn, given over to public use. Whether there is any economic advantage to formal state title over such open access properties, and,

indeed, whether such properties should be subject to open access regimes, are questions that have been addressed by studies too numerous to mention. Our Essay leaves such questions for another day. We are interested only in that segment of state-owned property that fits Demsetz's idealized category of state ownership, and not that which he would characterize as communal ownership.

In other cases, the state owns property that is not used for state services, but is not held in open access either. This property may be owned by the state in order to maintain a reserve, or for investment, or for some other reason that can frequently be found among private owners of property. States such as Singapore and Israel, which own vast amounts of the land of the state, hold many of the lands in reserve, outside of the private market for land. While some of the state lands are used, either as open access properties (such as parks) or as state-owned properties used for the provision of state services (such as ports), much of the land is not used at all. In some cases, the state owns property that is used by private service providers. For instance, the state may own public stadiums that are used by professional sports teams and other purveyors of mass entertainment. The state holds title, but leases out the property for use by various private actors.

In all these cases, the state's decision regarding ownership of the assets can no longer be analogized to the private firm's make or buy decision. The state is no longer determining whether to insource or outsource inputs, since the assets in question are not inputs for any state service. Nevertheless, the state still acts as a firm, in the sense that it is a large institution that separates ownership and control, that makes decisions within its institutional framework rather than in the outside market. It is therefore worth analyzing more carefully the decision-making process of the state, and meaning of "ownership" and "control" in this context.

If we view the state as an instrument of the public at large, we may consider the constituents within the sovereign jurisdiction of the state as the "owners" of its assets. However,

it is clear that the owners do not fully or directly control the state apparatus. In democratic states, some of the owners (eligible voters) periodically vote to select some of the representatives who control state apparatus. Other managers in the state apparatus (various officials, bureaucrats and judges) are not selected by vote of the owners. This separation of ownership and control can be advantageous just as it is for firms, as it allows managerial specialization, rational apathy and certain managerial economies of scale. By the same token, the separation of ownership and control can be inefficient in just the way it is for firms, as it invests imperfectly controlled agents with power, and that power can be used to seize rents.

Much of the debate about the efficacy of privatization revolves around this very point. Rent dissipation can attend a badly designed privatization, and post-privatization firms can be subject to agency costs that rival those of the state. Privatizations are not uniform and neither are industries. Thus, it is possible that even with the agency costs and rent dissipation created by state ownership of property, the losses will be less than those that might exist if the property were owned by a private firm. However, this is unlikely to be the case where the state does not use the property for the production of state services. At best, state ownership in such cases adds a layer of rent dissipation to that of the private firm beneficiaries of the state property. At worst, the state is the sole source of such rent dissipation, since the private beneficiaries of the property are individuals.

We should note too that given the power of the state as a regulator, it has the ability to exercise control over the use and management of assets quite aside from its potential ownership role. The state may preserve realty for use as a public space for large gatherings by taking title to the realty and maintaining it as a convention center. Alternatively, it may leave the land in private hands while using its taxing and regulatory powers to force the owner to maintain the

asset as a convention center. A full analysis of the optimality of state ownership of assets would take into account the relative costs of achieving state goals through these alternative means. Even if we determined that it is efficient for the land and building to be maintained as a convention center, it would not necessarily follow that it is efficient for the state to own the convention center. However, we set aside such issues as outside the scope of our analysis. We focus exclusively on the state's powers as owner, and not as regulator.

Thus far, we can summarize our discussion as follows. It may be optimal for the state to own assets when the assets are used in the provision of state services. However, the mere fact that the state uses the assets for state-provided services does not establish the efficiency of state ownership. Rather, the question of whether the state should own the assets it uses for providing services is a question similar to that faced by firms deciding whether to make or buy inputs, and the efficiency of such decisions varies according to costs that may vary from circumstance to circumstance. By contrast, it is highly unlikely that state ownership of assets is efficient where the assets are not used for providing state services. In such cases, state ownership of the assets creates the familiar agency costs entailed in separating ownership from control, without providing the expected benefits.

We conclude this Part by reiterating the limitations of our analysis. We have set aside questions of the optimality of state ownership of assets to be held in open access regimes. Likewise, we have eschewed questions about the efficiency of government provision of services, and presumed that the efficiency of the government decision to provide services does not affect the efficiency of its decision to own assets used in the provision of those services. Finally, we have consciously ignored state regulatory powers.

### III. Features of State-Owned Property

We have examined the efficacy of state-owned property through the lens of the theory of the firm. But the state is no ordinary institution, and it differs from the corporation in a number of important respects.

As we have noted, formally the state is not owned, though we may ascribe “ownership” of the institution to the constituents under its jurisdiction, or the public at large. Control, by contrast, lies in the hands of the government decisionmakers, and, to a lesser extent, those members of the constituent public that can supply sufficient rents to alter the behavior of the government decisionmakers. In this light, the state is subject to the same agency problems as firms. The gap between ownership and control permits those in control to seize rents at the expense of the owners, until the point where it becomes cost-effective for the owners to intervene.

The flaws of government decisionmaking due to rent-seeking behavior of government decisionmakers are well-known to scholars of public choice, and need not be repeated here. What is important for our purposes are the peculiar results of such rent-seeking behavior on the nature of state-owned property.

All things being equal, state-owned property is subject to both under-use and over-use, as it manages the feat of simultaneously having characteristics of anticommons and commons.

State-owned property must be managed through a state apparatus. Almost inevitably, this involves a plethora of decisionmakers, with numerous levels of oversight, both official and unofficial. State ownership of property, in other words, is property whose use and management is subject to the veto of numerous actors.

In the world of private property, property that is subject to an excessive number of vetoes is known as anticommons. As Michael Heller describes the concept, anticommons arise where “multiple owners are each endowed with the right to exclude others from a scarce resource, and no one has an effective privilege of use.” As a result of “too many owners holding rights of exclusion,” says Heller, “the resource is prone to underuse.” The vulnerability of state-owned property to such underuse should be clear. Particularly where the state hold large amounts of land for development reserves, it is easy to see why real estate development may be suboptimal. For examples, of this phenomenon, one may look to the vast reserve real estate holdings of the state of Israel, even as real estate prices in urban areas reflect a pace of development that fails to grow as quickly as demand.

At the same time, the multiplicity of government decisionmakers can also expose property to overuse. As Demsetz noted, open access property (communal property in his terminology, or commons in the terminology of others) is subject to overuse because individual users can externalize the costs of use while enjoying its full benefits. Thanks to Garrett Hardin’s famous article on the subject, this dynamic is known as the “tragedy of the commons.” Simply described, with no user excluded, and each user ready to use beyond reasonable limits, the commons will rapidly be exhausted. The tragedy of the commons arises because of a mismatch between use rights and exclusion rights: too few exclusion rights and too many use rights lead to overuse. While it would seem, *prima facie*, that it is impossible for state property to be characterized by features of both anticommons (excessive exclusion rights compared to use rights) and commons (excessive use rights compared to exclusion rights), in fact it is quite possible due to the differing coordination problems among government decisionmakers. Where government decisionmakers use their vetoes to prevent exclusion, while failing to block illicit

use, overuse can result. This, arguably, is the way to view repeated episodes of government surrender or loss of property to illicit squatters.

The peculiarities of the state thus potentially lead to two sources of inefficient use of state-owned property.

#### IV. The Emergence of State-Owned Property

In previous parts of this Essay, we have examined the efficacy of state ownership of property. However, the mere efficiency of state ownership of some assets does not guarantee state ownership, and the inefficiency of state ownership of other assets does not ensure that the state will abstain from ownership. In this part, we offer a simplified model of the emergence of state-owned property, and demonstrate the probability of inefficient state decisions regarding state ownership.

Consider first a simplified world of a state ruled by a Hobbes-style Leviathan — an absolute ruler who exercises power solely for the rents that can be extracted, and who makes only such concessions to others as maximize the stream of rents that can be taken. In a Leviathan state the existence of large amounts of state-owned property is no mystery. The state acquires wealth as a by-product of its superior ability to use force within its jurisdiction, and it holds some or all of this wealth in the form of assets. In the Leviathan state, there is no meaningful difference between the ruler and the institution of the state, and there is no meaningful distinction between the ownership of the ruler and the ownership of the state. The king, i.e., the state, owns assets just as any private owner would, as part of his portfolio.

In modern Western states, however, the state's power is significantly curbed, and power over the state is diffused among many actors. In this state of affairs, it is no longer self-evident

that vast amounts of assets should be owned by the state simply as a by-product of the ruler's wealth. Nonetheless, it is possible to think of state-owned property as an alternative form in which rulers may hold their property. The question is therefore in what circumstances rulers will find this form useful.

While we have examined thus far the situations in which state-owned property will be optimal for society as a whole, we have not examined the incentives of the actors in creating state-owned property. Although rulers in the modern Western democracy are more numerous and less powerful than the despot of the Leviathan state, they are not above rent-seeking. In modern democracies, the groups that are powerful enough to control decisionmaking vary from issue to issue and time to time. Yet, by the lights of public choice, it may be safely ventured that decisionmaking for most issues, most of the time, is made by groups with particularly big interests at stake in the issue.

We posit that government decisionmakers will favor keeping property under state ownership whenever the magnitude of rents that can be realized from continued state ownership exceed the magnitude of rents that can be realized from private ownership less the cost (in rents) of transition from state to private property. Similarly, decisionmakers will favor keeping property under private ownership rather than obtaining state ownership whenever the magnitude of rents that can be realized from continued private ownership exceed the magnitude of rents that can be realized from state ownership less the cost (in rents) of transition from private to state property.

This dynamic may also be viewed from the viewpoint of the interest groups interested in property being maintained under state ownership. Assuming that all things being equal, it is easier for government decisionmakers to extract rents from state-owned property than from private property, interest groups will nevertheless succeed in privatizing an asset where the gains



they realize are sufficiently large to compensate government decisionmakers for lost rents. Conversely, interest groups will succeed in bringing an asset under state ownership where rents to the interest group and government decisionmakers together are sufficiently large to compensate interest groups that will lose utility as a result of the transition to state-owned property.

The interest groups in question may be of any size. Indeed, interest groups may consist of the entire public. However, in all likelihood, the interest groups in question will be smaller. Affected interest groups will be those who will experience sufficient gains or losses from the ownership status of the property to justify the organizational costs necessary to become involved politically regarding the property. Not only is it unlikely in most cases that such interests groups will comprise even a majority of the public, taking Mancur Olson's lead, we can speculate that the smaller and more homogeneous the interest group in question, the more likely its involvement in the political process, and, all things being equal, the greater the likelihood of its success.

Utilizing the state for ownership of property can prove particularly lucrative for rent-seeking interest groups, as the state can potentially spread costs among a very large group, while allowing a small group to enjoy the bulk of revenues. This, for example, is a way of understanding the revenue and cost structure of state ownership of sports stadiums in large cities in the United States. The sports teams enjoy the bulk of the revenue for the facilities, which are formally owned by the state which pays for residual costs beyond the rental fees paid by the teams.

In some cases, of course, the desire of the interest group for state ownership may be prove beneficial. Where the property produces sufficiently widespread benefits, it may be that

the state actually is the lowest transaction cost means of organizing the ownership group for acquiring and managing the property, and state ownership is valuable enough to compensate for the attendant rent-dissipation. In fact, there is no way to determine in the abstract that all interest group demands for state ownership of property are detrimental to the public welfare. But there is also no way to be certain that it is beneficial to the public welfare either.

Because transitions to and from state ownership of property are costly, there will also be cases where state ownership of property is simply the result of inertia. In Demsetz's analysis of the development of private property, communal property evolved into private property when the gains to society as a result of private internalization of the benefits of property outweighed the cost of the transition. However, private property may have a competitor. Interest groups may find that the benefits of state ownership, net of organizational costs, particularly with selective costs externalized on a wider unorganized public, exceed those of private property. Communal property may thus lead not to private property rights, but to state-owned property rights. Transitions to private property from state-owned property, in turn, will occur only where the gains from private property are sufficiently large to outbid the interest group's interest in continued state-ownership, net of the cost of organizing the beneficiaries of the private property. State ownership of property may thus be static, and remain in place for a long time, notwithstanding the potential societal benefits of private ownership, due to the high cost of collective action to organize a transition.

## V. Some Conclusions About State-Owned Property

State-owned property is difficult to characterize because the functioning of the state and its many potential uses and impacts on property are difficult to encapsulate. In this Essay, we

have focused on that subset of state-owned property which is not open to the public use as “commons” or “open access” property, but, rather, is owned by the state as a private owner. Because the state is a large institution which lowers some coordination costs, while creating others, it is difficult to say categorically that state-owned property is always efficient or inefficient. The efficiency of state ownership depends very much on the nature of the property, the uses of the property, the character of the users of the property, the structure of the state management of the property, and the alternatives to state ownership.

Nonetheless, several potential and perennial flaws of state ownership can be identified. Where state ownership is not in service of a state-provided service, the agency costs created by state ownership are unlikely to be justified. Even where in service of a state-provided service, state ownership may create mismatches between exclusion and use rights that are characteristic of both anticommons (leading to underuse) and of commons (leading to overuse).

## REFERENCES

- Anderson, Terry L. and Hill, Peter J., 1983, Privatizing the Commons: An Improvement?, *Southern Economic Journal*, 50(2), 438-450.
- Barzel, Yoram, 2002, *A Theory of the State: Economic Rights, Legal Rights, and the Scope of the State* (Cambridge University Press).
- Berle, A.A., Jr and Means, Gardiner C., 1932, *The Modern Corporation and Private Property*, (New York, MacMillan).
- Ronald Coase, 1937, The Nature of the Firm, *Economica*, 16(4), 386-405.
- De Alessi, Louis, 1987, Property Rights and Privatization, *Proceedings of the Academy of Political Science*, 36(3), 24-35.
- Demsetz, Harold, 1967, Toward a Theory of Property Rights, *The American Economic Review*, 57(2), 347-359.
- Frydman, Roman, Gray, Cheryl, Hessel, Marek and Rapaczynski, Andrzej, 1999, When Does Privatization Work? The Impact of Private Ownership on Corporate Performance in the Transition Economies, *The Quarterly Journal of Economics*, 114(4), 1153-1191.
- Heller, Michael, 1998, The Tragedy of the Anticommons: Property in the Transition from Marx to Markets, *Harvard Law Review*, 111(3), 621-688.
- Heller, Michael, 2008, *The Gridlock Economy* (New York, Basic Books).
- Ostrom, Elinor, 1990, *Governing the Commons: The Evolution of Institutions For Collective Action* (Cambridge University Press).
- Vickers, John and Yarrow, George, 1991, Economic Perspectives on Privatization, *The Journal of Economic Perspectives*, 5(2), 111-132.