State versus Private Ownership

Andrei Shleifer

Department of Economics
Harvard University
Cambridge, Massachusetts.

Abstract

Private ownership should generally be preferred to public ownership when the incentives to innovate and to contain costs must be strong. In essence, this is the case for capitalism over socialism, explaining the "dynamic vitality" of free enterprise. The great economists of the 1930s and 1940s failed to see the dangers of socialism in part because they focused on the role of prices under socialism and capitalism, and ignored the enormous importance of ownership as the source of capitalist incentives to innovate. Moreover, many of the concerns that private firms fail to address “social goals” can be addressed through government contracting and regulation, without resort to government ownership. The case for private provision only becomes stronger when competition between suppliers, reputational mechanisms, the possibility of provision by private not-for-profit firms, as well as political patronage and corruption, are brought into play.

What kinds of goods and services should be provided by government employees as opposed to private firms? Should government workers make steel and cars in government-owned factories? Should teachers and doctors be publicly employed or should they work for private schools and practices? Should garbage be picked up by civil servants or employees of private garbage haulers? Should the whole economy be "socialized"? Although these are age-old questions in economics, the answers economists give to them, as well as the reasons for arriving at these answers, have been changing. In this paper, I describe some recent ways of thinking about government ownership.

Half a century ago, economists were quick to favor government ownership of firms as soon as any market inequities or imperfections, such as monopoly power or externalities, were even suspected. Thus Arthur Lewis (1949, p. 101), concerned with monopoly power, advocated the nationalization of land, mineral deposits, telephone service, insurance, and the motor car industry. For similar reasons, James Meade (1948, p. 67) favored "socialization" of the iron and steel, as well as the chemical, industries. Maurice Allais (1947, p. 66), always a step ahead of his English-speaking peers, argued for nationalization of a few firms in each (!) industry to facilitate the comparison of public and private ownership. At that time, privatization of such services as incarceration and education was evidently not even discussed by serious scholars.

These comments by the future Nobel laureates were part of a broader debate over capitalism, socialism and the role of planning in a market economy, which raged in the 1930s and 1940s. The views of serious economists ranged from advocacy of socialism (Lange, 1936; Lerner, 1944), to fierce opposition to socialism (Hayek, 1944; Jewkes, 1948), to a reluctant concession that socialism is bad but inevitable because capitalism was running out of steam (Schumpeter, 1942). A remarkable aspect of this debate is that even many of the laissez-faire economists focused overwhelmingly on the goal of achieving competitive prices, even at the cost of accepting government ownership in non-competitive industries. Thus Henry Simons (1934, p. 51), in "A Positive Program for Laissez Faire," writes "The state should face the necessity of actually taking over, owning, and managing directly, both the railroads and the utilities, and all other industries in which it is impossible to maintain effectively competitive conditions." Simons's advice is partly a response to the failures of regulation during the Depression, but the acquiescence of this libertarian economist to public ownership is symptomatic of the professional sentiment of the times. Pigou (1938), Schumpeter (1942) and Robbins (1947) were not too opposed to state ownership either, although Pigou recognized most clearly the dangers of bureaucratic control. In the first edition of his Economics text, Samuleson (1948) was more skeptical of socialism, writing (p. 604): "It is only too easy to gloss over the tremendous dynamic vitality of our mixed free enterprise system, which, with all its faults, has given the world a century of progress such as an actual socialized order might find it impossible to equal." Even Samuelson, however, focuses exclusively on the allocative role of prices, and does not say anything about ownership.

Consistent with the evident lack of aversion to state ownership, the postwar state assumed an enormous role in production throughout the world, owning everything from land and mines to industrial factories and communications to banks and insurance companies to hospitals and schools -- even in market economies! In some of these economies, such as Japan, the United States, and Germany, government ownership was restrained, while in others, such as Italy, France, and Austria, the state assumed control of significant parts of production. Most developing countries opted for state ownership of the so-called "strategic" sectors. In socialist economies, the state came to own not just the strategic sectors, but everything else as well.

How the world has changed! In the last 20 years, governments in market economies throughout the world have privatized the very state firms in steel, energy, telecommunications and financial services that the Nobel laureates approvingly saw nationalized a few decades earlier. Communism has collapsed almost everywhere in the world, and reform governments throughout the formerly socialist world have embarked on massive privatization programs. The economic policies of developing countries turned squarely to private ownership. In market economies, government provision of such basic services as garbage collection and education has come into question, and has increasingly been replaced with private provision, though still largely paid for from tax revenues.

Although some early voices, most notably that of Milton Friedman (1962), did rise to oppose state ownership, it is fair to say that post-war economists generally failed to anticipate its grotesque failure[1]. In recent years, however, the evidence on the failures of state ownership in economies around the world has begun to accumulate (World Bank, 1995), and advances in the theories of ownership and contracting have reopened the question of state versus private provision. The contracting perspective distinguishes sharply between the government paying for a particular service, such as education, and providing it inhouse. This perspective also permits to identify the opportunities for achieving social goals through private supply by a firm that may

[1]In the prewar and predepression years, economists were a good deal more skeptical about state ownership. A truly brilliant statement of this skepticism, to which I return below, is by Alfred Marshall (1907).

operate under a government contract or regulation. In a sense, the issues here are closely related to the vertical integration literature (Coase, 1937), except the question is that of the “make or buy” decision by the government rather than by a private firm.

When the opportunities for government contracting are exploited, the benefits of outright state ownership become elusive, even when social goals are taken into account. Moreover, it becomes clear that private ownership is the crucial source of incentives to innovate and become efficient, which accounts for what Samuelson (1948) called the "tremendous vitality" of the free enterprise system. The contractual perspective can serve as the basis of a theory of optimal provision when the government maximizes social welfare. It also allows us to think about an imperfect government, which maximizes political goals such as patronage or simply the income of politicians through bribes. Generally speaking, the case against state ownership becomes stronger when political considerations enter the calculation.

This paper begins by evaluating the case for in-house provision of goods and services by employees of a benevolent government. It argues that the conditions under which government ownership is superior in a country with good contract enforcement are very limited, and involve particular cases where soft incentives are extremely valuable and competition is very limited. I then turn to the more realistic case of a non-benevolent government, which helps to explain why the gains from privatization in many instances have been so enormous. Elementary and secondary education offer a particularly vivid example where I believe the case for near-monopoly government provision in an advanced democracy is indefensible.

The bottom line of this paper is simple. The 1940s case that government production is broadly desirable is no longer convincing. This case was motivated in part by such empirical observations as some successes of government control during the war, the failures of competition and regulation during the Great Depression, and the apparent success of Soviet industrialization, but also by a misunderstanding of the consequences of political control of firms, and by a substantial disregard of the importance of innovation in market economies. Today, the war and the Depression are no longer as vivid, and the communist economies have collapsed. As importantly, the quality of contracting and regulation have improved, competition has become more effective, the dangers of politicization of production have become self-evident, and the appreciation of the innovative potential of entrepreneurial firms is at a new high. For all these reasons, the benefits of reducing the role of government as a producer are becoming apparent and beginning to be exploited.

The Desirable Scope of a Benevolent Government

Suppose that the government wants to have a good or service delivered to some consumers. The product can be food or shelter, steel or phone service, education, health care, or incarceration. The government might wish to pay for some of this good and service out of its budget, or it may have views on the characteristics of this good, such as the price, even though the consumers buy it on their own. Should the government hire its own employees to deliver the service, or should it relinquish the provision to a (possibly regulated) private supplier? Does the mode of provision matter even when the government pays? In this section, I examine these questions for the case of a benevolent government.

The first key insight of the contracting approach deals with certain ways in which it **does not** matter whether the activity is provided in-house or contracted out. If the government knows exactly what it wants the producer to make, then it can put its wishes into the contract (or a regulation) and enforce this contract. In this case, the difference between in-house provision and contracting out disappears. Take some obvious cases where this point is crucial. A common argument for government ownership of the postal service is to enable the government to force the delivery of mail to sparsely populated areas, where it would be unprofitable to deliver it privately (Tierney, 1988). From the contractual perspective, this argument is weak. The government can always bind private companies that compete for a mail delivery concession to go wherever the government wants, or it can alternatively regulate these companies when entry is free. It cannot be so difficult to write the appropriate contract or regulation; after all, the government now **tells** the U.S. Postal Service where it wants the mail to be delivered.

Or take monopoly power, and the need for pricing restraint, as the argument for state ownership. If the government can describe the products that the monopoly delivers, it can always regulate a private monopoly, and often has done so in the cases of utilities or telecommunications. Once regulation is allowed, the 1940s case for superiority of direct government ownership evaporates. Or take, finally, the common case against private provision of schooling that holds that private schools will avoid taking problem students, whom public schools can be compelled to take. Again, if the government pays for at least some of the education through allocating vouchers to consumers, and can make universal access be a condition for redeeming a school's vouchers, the problem can to a first approximation be addressed contractually. With perfect contracting and regulation, there is no difference between state and private provision of goods and services. Of course, this result is not an endorsement of any and all regulation, but only a statement that the pursuit of "social goals" does not, on its own, make the case for government ownership.

The difference between provision modes reappears once we recognize that, in many instances, contracting opportunities are limited, and the government cannot fully anticipate, describe, stipulate, regulate, and enforce exactly what it wants. A particular way to describe such limited contracting opportunities is incomplete contracts theory, developed by Grossman and Hart (1986), Hart and Moore (1990), and Hart (1995). These authors focus generally (and not just to model government) on contractual incompleteness, and more specifically on the idea that ownership of assets gives the owner control and bargaining power in situations where contracts do not specify what has to be done. As a consequence, ownership strengthens the owner's incentives to make investments that improve the ways or reduce the costs of using the assets, because the owner has the power to reap more of the rewards on these innovations. An owner of a postal business who invents a better way to deliver mail can implement this innovation and profit from it. If, in contrast, the government or someone else owns the business, the inventor needs the agreement of the owner to implement the innovation, and thus must share the benefits of the invention with this owner. Without the bargaining chip provided by ownership, the incentives to invest and innovate are lower.

Hart, Shleifer, and Vishny (1997) apply Grossman-Hart-Moore theory to the choice between private and public provision. They broadly refer to the characteristics of the product with respect to which a contract is incomplete as non-contractible "quality." This quality can stand for how well prisons treat inmates, how clean utilities keep the water, how well schools inculcate patriotism in their students, how long it takes a letter to get to a remote area, or how innovative car makers are. The choice of public versus private provision depends on how different ownership patterns affect the incentives to deliver this non-contractible quality, as well as on the cost of such delivery. The efficiency concept here is intended to incorporate fully the social value of quality.

To focus on both cost efficiency and quality, Hart, Shleifer, and Vishny (1997) consider two types of investment incentives: those to reduce costs and those to improve quality or innovate. When assets are publicly owned, the public manager has relatively weak incentives to make either of these investments, because this manager is not the owner and hence gets only a fraction of the return. In contrast, private regulated contractors have much stronger incentives because, as owners, they get more of the returns on the investment. Which ownership structure is more efficient depends on whether having high-powered incentives to invest and innovate is a good idea[2].

The weak incentives of government employees with respect to both cost reduction and quality innovation underlie the basic case for the superiority of private ownership, a case that has been confirmed by the variety of empirical studies and general observation. It does not make sense for the government to own firms -- be they steel mills, airlines, or grocery stores -- when

---

[2]The emphasis on soft incentives of government employees is common to many studies of private versus public bureaucracies, including Stiglitz (1989, 1994), Wilson (1989), Holmstrom and Milgrom (1991, 1994), Tirole (1994), and Williamson (1994). In all these studies, however, the conclusion of soft incentives of government employees is derived from assumptions made in addition to that of government ownership of assets, such as civil service rules, legal restrictions on compensation of bureaucrats, complexity of government objectives, and so on. An advantage of the Grossman-Hart-Moore approach is that the soft incentives are derived from the very fact of government ownership rather than from these additional assumptions.

private firms can deliver the same, or even superior, quality of goods at a lower cost. Indeed, with few exceptions, the evidence on privatization points to both cost reductions and quality improvements in private relative to public firms (World Bank, 1995). For example, Barberis et al. (1996) find that both quality and efficiency improve in privatized shops in Russia, and Ehrlich et al. (1994) find higher productivity growth in private than in state airlines. Contrary to Schumpeter's (1942) fears, private entrepreneurship remains a locomotive of progress.

The case for focusing on innovation in assessing the relative merits of government and private provision was made brilliantly by Marshall (1907). Having explained that innovation accounts for the enormous increase in British living standards in the 19th century, Marshall turned to the question of socialism, and argued that the government is generally a poor innovator: “A Government could print a good edition of Shakespeare’s works, but it could not get them written... Every new extension of Governmental work in branches of production which need ceaseless creation and initiative is to be regarded as prima facie anti-social, because it retards the growth of that knowledge and those ideas which are incomparably the most important form of collective wealth (p. 339).” The under-appreciation of the importance of innovation has bedeviled most advocates of government ownership, including the Nobel Laureates I quoted.

There is, however, a class of cases where the argument against government ownership is not as straightforward. In these cases, cost reductions for which private suppliers have stronger incentives have potentially deleterious affects on the non-contractible quality. For example, private prisons might abuse prisoners by hiring cheaper guards and failing to train them, private hospitals may refuse to treat patients on which hospitals generally lose money, private schools might substitute less effective teachers' aides for more expensive teachers, and so on. In such situations, strong incentives may lead to inefficient outcomes or, put differently, the efficient producer might need to have soft incentives. Ironically, the government sometimes becomes the efficient producer precisely because its employees are not motivated to find ways of holding costs down.

The modern case for government ownership can often be seen from precisely this perspective. Advocates of such ownership want to have state prisons so as to avoid untrained low-wage guards, state water utilities to force investment in purification, and state car-makers to make them invest in environmentally friendly products. As it turns out, however, this case for state ownership must be made carefully, and even in most of the situations where cost reduction has adverse consequences for non-contractible quality, private ownership is still superior.

To begin, even when cost reduction does have an adverse effect on non-contractible quality, the greater incentives of private contractors to innovate may still shift the efficiency balance in their favor. For example, if the government is interested in a design and procurement of a new weapons system, it may prefer to hire a private contractor despite the concern that this contractor would sacrifice some aspects of quality to reduce costs (for example, the private contractor might invest less in secrecy than the government would prefer), because that contractor would design a better system. The revolution in telecommunications brought to light huge benefits of private ownership of phone companies from the perspective of creation and adoption of new technologies (Winston, 1998). In industries where innovation is crucial, the case for government provision is extremely far-fetched.

Perhaps as importantly, the adverse effects of cost reductions on non-contractible quality present less of a problem when consumers buy the good and service themselves, and there is enough competition between suppliers that consumers have some choice. Take, for example, the case of health insurance plans or nursing homes, where an important concern is the underprovision of quality by private suppliers once they have signed a customer. In these instances, consumers can switch suppliers if they are dissatisfied with the service. As a result, whether the consumer or the government pays for the service, a seller who reduces cost and quality would find lower demand, or alternatively only demand by the customers who prefer lower quality and cost. It is true that switching may be costly, consumers may be slow to react, and new suppliers may also cut corners. Still, choice between competitive suppliers radically weakens the case for government provision because it weakens the incentives for inefficient cost reduction, while keeping those for efficient cost reduction and innovation strong.

An additional competitive mechanism is reputation-building. If private suppliers want to have customers in the future, they are less likely to cut costs and reduce quality when doing so is inefficient. The reputational effect is evidently of some importance in support of privatization of prisons, where quality innovation is unimportant and prisoner choice is not a realistic possibility, but some private firms work hard to establish a reputation for quality so that they can win additional government contracts (Logan, 1990).

These considerations point to a rather narrow set of circumstances in which government ownership is likely to be superior. These are the situations in which: 1) opportunities for cost reductions that lead to non-contractible deterioration of quality are significant; 2) innovation is relatively unimportant; 3) competition is weak and consumer choice is ineffective; and 4) reputational mechanisms are also weak. This list gives, in my opinion, a fair sense of how tenuous, in general, is the normative case for government production.

Even this case, however, is still exaggerated. The reason is that market economies have developed a private alternative to profit-maximizing suppliers that attenuates the incentives for quality-reducing cost-reduction, namely not-for-profit provision. Nonprofit firms use the surplus they generate to consume perquisites, to improve the lives of their employees, and even to increase quality when these nonprofits are socially motivated (Weisbrod, 1988). Presumably, the entrepreneurs who run these firms value the perquisites less than the for-profit entrepreneurs value profits, and may in addition care about quality for its own sake. Both of these factors stunt their incentives to make quality-reducing cost cuts. As Glaeser and Shleifer (1998) show, entrepreneurial not-for-profit firms can be more efficient than either the government or the for-profit private suppliers precisely in situations described in the previous paragraph -- those where soft incentives are desirable, and competitive and reputational mechanisms do not soften the incentives of private suppliers. Indeed, schools, universities, hospitals, day care centers and other firms that might in principle raise concerns about private provision (whether justifiable or not) often have a not-for-profit status, further undermining the case for government provision[3].

The set of activities that are left for the government to perform under these circumstances is very limited, but not empty. As an example, take the case of operating Air Force One, the airplane that carries the President of the United States. Should the operations and servicing of Air Force One be provided by government employees, or by a private contractor? In this example, the argument for government operations is compelling precisely for reasons outlined in this section. First, the security of the president of the United States is important enough that it is a

[3]As Coase (1974) documents, both for-profit and not-for-profit firms operated lighthouses in England, and succeeded in collecting fees from ship-owners, contrary to the economists' standard view (Samuelson 1948) that lighthouses require government construction and operation.

bad idea to have a service provider who might shirk on the quality of personnel, preparedness or service in order to reduce labor costs, or pick shorter and riskier routes to conserve fuel. Soft incentives when it comes to cost containment are essential. Second, ongoing innovation is probably not an important dimension of this particular service. Third, the President cannot readily decide to switch suppliers when his plane is not ready on short notice. Fourth, reputational considerations may not be significant enough to counter the concerns raised above. Finally, the incentives of a not-for-profit operator may still be too strong to contract out this service. While there are of course other examples where government provision is superior, this example gives a sense of the kind of argument that needs to be made.

To conclude this section, note that the case for private ownership made in this paper rests crucially on the importance of incentives to innovate or reduce costs. In some situations, neither innovation nor cost efficiency is crucial, and contractual incompleteness comes from the government not knowing exactly what it wants, and wishing not to pay so much when it changes its mind (perhaps because raising tax revenue is expensive). In such situations, there is a case for government ownership based on cost savings. The best examples here are nationalization or heavy regulation in a war, which probably stunt the incentives to innovate, since the returns are largely captured by the government. (Of course, during a war, patriotism may be a separate and powerful source of such incentives.) But a further effect of nationalization or regulation is to allow the government to change its mind about what it wants to be produced, how fast, and by whom, without having to pay a contractor for changing the terms. The alternative of having private contractors submit low bids for government production, in anticipation of charging the government through the nose when it changes its mind, is not efficient when capital markets are imperfect or the government is not credible. This simple argument explains why some governments nationalize industries during war, or why they keep such activities as the army or foreign service under state control even in peacetime: it saves money to do so. Indeed, war analogies were prominent in the 1940s writings in favor of socialism and state ownership. It is much less obvious why the government needs to be able to change its mind so often in peacetime without paying for it, and why incentives should be ignored in favor of humoring government unpredictability, especially when the motivating power of patriotism is weakened.

The Politics of Government Ownership and Privatization

So far, I have discussed ownership under the assumption that the government maximizes social welfare. This assumption is too optimistic. Indeed, the principal case for privatization rests on the distortions in the government's objectives. The discussion of the optimal provision mode is seriously incomplete without paying some attention to the objectives of the government.

Since politicians typically like to remain in power and enjoy the perquisites of their office, a significant element of the goals of any government is to maintain political support. In democracies, such political support usually takes the form of votes, though less democratic governments also need loyalists who can provide manpower to suppress the potential opposition. Governments throughout the world have long directed benefits to their political supporters, whether in the form of jobs at above-market wages or outright transfers. Governments have used their control of state firms and other assets as a means of channeling these benefits, by forcing excess employment at state firms and agencies, creating government projects that transfer wealth to supporters, and so on. In other words, state firms are inefficient not just because their managers have weak incentives to reduce costs, but because inefficiency is the result of the government's deliberate policy to transfer resources to supporters (Shleifer and Vishny, 1994, 1998; Bennedsen, 1998).

A large body of observation and research is consistent with this view of public production. For three decades after World War II, the British government paid a fortune to keep the country's coal mines open. It did so not because it was unsure whether the mines were operated efficiently, and not because public managers had weak incentives, but because the miners' union had the political power to bring down a government. World Bank (1995) describes a Turkish state-owned coal-mining company that runs annual losses per worker equal to six times the per capita national income, a state-owned power utility in the Phillippines that shuts off electricity for seven hours a day in many parts of the country, a state sugar-milling monopoly in Bangladesh that employs 8,000 unneeded workers while forcing the price of sugar in the country to stay at twice the international level, and a Tanzanian state-owned shoe factory which, with World Bank's help, could not get its production to rise above 4 percent of capacity before eventually shutting down. Consistent with this view of state ownership, privatization of state firms leads to significant improvements in productivity and profitability as employment is reduced and efficiency rises toward private standards (Megginson et. al., 1994; La Porta and Lopez-de-Silanes, 1997; Frydman et al., 1998). There is increasing evidence as well that private firms have substantially lower costs and higher productivity in many services that government have traditionally provided, such as garbage collection (Savas, 1982).

Along the same lines, trade unions around the world are typically the strongest opponents of privatization, precisely because they obtain significant benefits for their members from the government-owned firms in exchange for political support (Lopez-de-Silanes, 1997; Lopez-de-Silanes, Shleifer and Vishny, 1997). The social case for government ownership is the weakest when patronage -- the transfer of wealth to constituents through the use of government-owned assets in exchange for political support -- is common. At the same time, the prevalence of patronage also explains why government provision is much more widespread than is socially desirable.

Politicians are also interested in their own income, including bribes. Corruption has two effects on optimal ownership. On the one hand, provision by government employees often puts them in a position to take bribes. In many countries, state tax collectors take bribes to reduce taxpayers' bills, state policemen take bribes to provide protection, and state doctors take bribes to treat patients. Indeed, some developing countries, including Argentina, Indonesia, Nigeria, and Kenya, contracted parts of customs collections to private Swiss firms with the principal goal of reducing corruption (Low, undated). On the other hand, the process of privatization is itself susceptible to corruption. In exchange for campaign contributions or bribes, politicians may award contracts or sell whole firms to inefficient providers, overpay these providers, fail to make them accountable for quality, and even fail to enforce those contracts.

Theoretically, then, the effects of corruption on the optimal provision mode are ambiguous: a corrupt government is less able to privatize, regulate or contract in the public interest, but it is also less able to run enterprises in the public interest. In practice, however, the prevalence of corruption typically strengthens the case for private ownership (Kaufmann and Siegelbaum, 1997) because it is generally easier for reformers in a government to design a relatively corruption-free privatization program, which relies on the effectiveness of a relatively small agency, than to fight corruption inside state firms and agencies. Thus several Latin American and East European countries, and even Russia, succeeded in designing relatively corruption free privatization programs despite widespread corruption in their bureaucracies (Boycko, Shleifer and Vishny, 1995). Moreover, once an activity is privatized, the scope of government control and regulation over its delivery generally falls, and so do the opportunities for corruption.

The last point has further implications. The prevalence of corruption is to a large extent endogenous, and depends on the prevalence of government regulations in the economy. In some countries, corrupt politicians create regulations so that they can release firms from them in exchange for bribes (Shleifer and Vishny, 1993). Taking the level of corruption as given in designing the appropriate provision mode is therefore inappropriate. Indeed, the most effective production in some countries may be neither that by the ineffective government nor the contracting to private suppliers by the corrupt politicians, but rather totally unregulated market supply! While such supply may not result in the attainment of all the social goals, it would have the benefit of both significant efficiency and reduced corruption. In an economy with weak institutions, it may be better to have totally private garbage collection than either garbage collection by government employees, or that by the private contractors who got their concessions by bribing officials. It may, for similar reasons, be better to have unregulated private schooling.

The case where provision by a corrupt government remains optimal is one where weak incentives are desirable, market mechanisms are limited, and continuous regulation is necessary but is jeopardized by corruption. In these situations, it may be better to have soft incentives of government employees who pay no attention to quality, than hard incentives of private contractors who bribe government employees to overlook their inattention to quality. It may be plausible to argue for private incarceration in the United States, where elaborate procedures to develop contracts between governments and private suppliers exist, governments have substantial monitoring capacity, courts function in cases of disputes, private suppliers attempt to establish reputations, and corruption is limited. It is quite another matter to advocate such a strategy in a country with weak institutions, where contracting can result in "just take them and bring them back in 10 years" contracts, no protection of prisoner rights by either contracts or courts exists, and contracts are awarded in return for bribes to government cronies who have no interest in delivering quality service. Such concerns would convince me to oppose prison privatization in Russia.

In summary, political considerations generally not only strengthen the case for privatization, but actually are the crucial reason for it in the first place. Elimination of politically motivated resource allocation has unquestionably been the principal benefit of privatization around the world. Government corruption raises a number of concerns about the design of privatization programs, but in most cases also strengthens the case for private provision. Taking politics into account further reduces the optimal range of government ownership.

The Case for Private Schooling

In the United States, one of the most heated recent debates on the optimal provision mode concerns elementary and secondary education, which is now overwhelmingly provided by public schools (Poterba, 1996). Critics of the current system point to the enormous increases in real public expenditure on schools in the United States in recent decades, which have evidently not been accompanied by corresponding improvements in the quality of education. Hanushek (1996) reports that per student real expenditure on schooling tripled between mid 1960s and mid 1990s, while standardized test scores if anything declined. The opponents of school privatization and choice, in contrast, typically make arguments about quality and social goals. The framework discussed in this paper may be helpful in framing some of the issues in the schooling debate.

For concreteness, I compare two models of provision of education, which, while not capturing every nuance of the existing system and proposed alternatives, do reflect many of the elements of the schemes that are under discussion. Under the current system, schools are controlled by local school boards, which can be thought of as local governments. Schools are paid for through local property taxes and transfers from the state budgets. Schools are therefore generally government-owned and -financed, and the government sets their curriculum and hires teachers. Teachers in public schools are members of a politically active trade union. In general, students have very little choice of schools. Some private schools exist and are financed through private donations and tuition. Parents who send their children to private schools therefore pay private tuition on top of the property and state taxes that go to finance public education.

Under some of the proposed reforms, parents receive vouchers of some fixed value that are paid for, as currently, with local and state taxes. The value of the voucher is initially set to be high enough that it can pay for the currently available public education. Students can use these vouchers at any school of their choice, which can be either public or private. For this scheme to work, it is important that a voucher be accepted in enough schools that meaningful choice can be exercised by the students and their parents. The government can certify the schools at which vouchers can be used, set the basics of the curriculum, and require that students pass certain tests as part of the school recertification process. Private schools can charge more than the value of the voucher if they choose, although the government can also require them to take a certain number of students without any surcharges.

To begin comparing the two systems, note first that from the contracting perspective presented in this paper, the currently existing arrangement is unlikely to be a success, for at least three reasons. First, because schools are run by government employees, their incentives for cost reduction must be very weak. The explosion of educational costs is not surprising. Second, for the same reason, the incentives for innovation must be very weak. Since ideas of how students should be taught as well as what they should be taught seem to be changing rapidly, the low incentives for innovation are a serious problem. Third, because schools are run by local governments that face a powerful and well-organized labor union, they are likely to put a lot of weight on the welfare of the members of this union as opposed to the consumers of education. Not surprisingly, all these theoretical criticisms of public education in the United States appear to be empirically relevant (Hanushek, 1996; Peltzman 1993, 1996; Chubb and Moe, 1990).

From the contracting perspective, the proposed alternative of vouchers and school choice has several obviously desirable characteristics. First, private schools have stronger incentives to reduce costs and, more importantly, to innovate, leading in principle to both higher quality and greater efficiency of education. Second, private schools are less likely to cater to the preferences of teachers' unions. Third, school choice and competition between schools are likely to moderate significantly the incentives of the private providers to undertake quality-reducing cost reductions, since schools that pursue these policies are likely to lose students. Indeed, competition is likely to increase the quality of both private and public schools (Hoxby, 1995). Fourth, reputational considerations are likely to reinforce these benefits of competition. Finally, since the not-for-profit option is the prevalent organizational structure of private schools, their incentives for inefficient cost reduction are further softened. In sum, schooling on the surface appears to be a near-perfect case for the superiority of private provision.

Nonetheless, critics of voucher schemes have produced a number of objections. I will try to list some of these objections, and to evaluate their merits from the contracting perspective.

First, critics argue that there are large social externalities to education, so a private system underprovides this service. As Poterba (1996) points out, there is precious little evidence on the importance of these externalities. Moreover, since vouchers are financed with taxes, it is perfectly possible for the government to maintain higher educational spending than what consumers would do if left to their own devices. Broad externalities, therefore, are not a compelling objection, even if they exist.

Second, critics argue that there are large within-school external benefits of heterogeneity, whereby poor students benefit from the presence of students from wealthier households, and perhaps vice versa. They claim that a voucher scheme would therefore lead to socially suboptimal segregation. As Hoxby (1996) clearly shows, there is a significant amount of segregation of students in the United States already, driven by geographical mobility of households and their choice of neighborhoods. It is quite possible, therefore, that a voucher scheme would reduce segregation if students from poorer households have the choice of going anywhere they want, and schools are required to take at least some students without charging more than the voucher as a condition for the government redeeming their vouchers. One extreme mechanism of combating segregation is Milwaukee's random allocation of voucher holding students to schools. Indeed, vouchers may be a ticket to good education for many students (Moe, 1995; Rouse, 1998).

Third, critics are concerned that some private schools will have curriculums that do not fully reflect the social goals of education. Many people have indeed argued that inculcating students with patriotism and ideology is the crucial reason for public education in the first place (La Chalotais, 1763, quoted in Barker, 1944, p. 80; Lott 1990, Kremer and Sarychev 1998). Prussia and France, for example, developed state education in part for ideological reasons -- the former to foster religion, the latter to counter its influence (Barker, 1944). In the United States, there has been and remains a fear that, if some private schools are captured by groups with peculiar religious or cultural views, ideological goals of public education will be undermined (Kremer and Sarychev, 1998).

While such concerns may have been important at the time of creation of public education, when contracting opportunities were limited, they are not as compelling today. To begin, as someone who went through Soviet schools, I am underwhelmed by the alleged benefits of indoctrination. But even someone who believes in large social benefits of teaching State ideology must recognize that these problems can be largely addressed contractually, by requiring that particular subjects be taught and others not taught, stipulating the basic curriculum, and testing students as a condition for school eligibility for a voucher program. It does not appear that these terms are inherently non-contractible, although they might have been in the 19th century. Thus I am not sure why teaching evolution, and restricting the teaching of creationism, is inherently non-contractible: if anything, private schools might be more concerned about violating their agreements with the government if they face significant financial penalties than the public schools in communities that want creationism taught. And even if some teaching of “undesirable” doctrines under private schooling is unavoidable, the social costs of such teaching should be compared to the potential benefits of improved education resulting from improved incentives.

Fourth, critics worry that private schools will attempt to exclude certain students because they are trouble-makers, have learning disabilities, or may otherwise be expensive to educate. This too does not seem to be a valid objection, since presumably the government currently pays more either to the existing public schools or to special (private or public) programs to help these students. Such programs can always continue. The key point is that, as long as entry of schools is allowed, and vouchers are generous enough that schools want to attract students, the first-order effect is to make access to good education easier rather than harder <u>for everyone</u>.

Finally, some of the critics argue that parents are too uninformed to exercise meaningful choice (Arrow, 1996). Although this may be true in some cases, it is important to remember that the kind of knowledge necessary for school choice is not that of the specifics of the courses and academic curricula. Most people would probably choose schools by checking with their neighbors, and most people are capable of such an inquiry. The children of parents who do not check will probably find themselves in no worse a predicament than they face today. After all, competition is likely to improve the quality of public schools if they want to stay in business (Hoxby, 1995).

In summary, at least the theoretical case of school choice and vouchers as an alternative to the current system in the United states seems overwhelming. The objections to this case appear to be insufficiently focused on the true possibilities of contracting and regulation, and on the enormous benefits of private ownership and competition for both cost efficiency and innovation.

Conclusion

Private ownership should generally be preferred to public ownership when the incentives to innovate and to contain costs must be strong. In essence, this is the case for capitalism over socialism, explaining the "dynamic vitality" of free enterprise. The great economists of the 1930s and 1940s failed to see the dangers of socialism in part because they focused on the role of prices under socialism and capitalism, and ignored the enormous importance of ownership as the source of capitalist incentives to innovate. Moreover, many of the concerns that private firms fail to address “social goals” can be addressed through government contracting and regulation, without resort to government ownership. The case for private provision only becomes stronger when competition between suppliers, reputational mechanisms, the possibility of provision by private not-for-profit firms, and the risk of political patronage and corruption are brought into play.

The benefits of private delivery -- regulated or not -- of many goods and services are only beginning to be realized. Health, education, some incarceration, some military and police activities, and some of what now is presumed to be "social" insurance like Social Security, can probably be provided more cheaply and attractively by private firms. It is plausible that 50 years from now, today's support for public provision of these services will appear as <u>dirigiste</u> as the 1940s arguments for state ownership of industry appear now. A good government that wants to further “social goals” would rarely own producers to meet its objectives.

Acknowledgments

I am grateful to Morten Bennedsen, Olivier Blanchard, David Cutler, J. Bradford De Long, Edward Glaeser, Oliver Hart, James Hines, Lawrence Katz, David Laibson, Rafael La Porta, Florencio Lopez-de-Silanes, Caroline Minter-Hoxby, James Poterba, and Timothy Taylor for help with the paper.

References

Allais, Maurice, 1947. "Le Probleme de la Planification Economique dans une Economie Collectiviste," *Kyklos* II: 48-71.

Arrow, Kenneth J., 1996. "Information, Responsibility, and Human Services," in Victor R. Fuchs ed., *Individual and Social Responsibility: Child Care, Education, Medical Care, and Long Term Care in America*. Chicago: University Press of Chicago.

Barberis, Nicholas, Maxim Boycko, Andrei Shleifer and Natalia Tsukanova, 1996. "How Does Privatization Work: Evidence from the Russian Shops?" *Journal of Political Economy*, vol. 104(4), pp.764-790.

Barker, Ernest, 1944. *The Development of Public Services in Western Europe 1660-1930*, London: Oxford University Press.

Bennedsen, Morten, 1998. “Political Ownership,” Mimeo.

Boycko, Maxim, Andrei Shleifer, and Robert W. Vishny, 1995. *Privatizing Russia*. Cambridge, MA: MIT Press.

Chubb, John E. and Terry M. Moe, 1990. *Politics Markets and America's Schools*. Washington: The Brookings Institution.

Coase, Ronald, 1937. “The Nature of the Firm,” *Economica*, Vol.4, pp. 386-405.

Coase, Ronald, 1974. “The Lighthouse in Economics,” *Journal of Law and Economics*, Vol. 17(2), pp. 357-376.

Ehrlich, Isaac, Georges Gallais-Hamonno and Randall Lutter, 1994. "Productivity Growth and Firm Ownership: An Analytical and Empirical Investigation," *Journal of Political Economy*, Vol. 102(5) pp. 1006-1038.

Friedman, Milton, 1962. *Capitalism and Freedom*, Chicago: University of Chicago Press.

Frydman, Roman, Cheryl Gray, Mark Hessel and Andrzej Rapaczynski, 1998. "Private Ownership and Corporate Performance: Evidence from Transition Economies," Mimeo.

Fuchs, Victor R., ed., 1996. *Individual and Social Responsibility: Child Care, Education, Medical Care, and Long Term Care in America*. Chicago: University Press of Chicago.

Glaeser, Edward and Andrei Shleifer, 1998. "Not-for-Profit Entrepreneurs," Mimeo.

Grossman, Sanford, and Oliver Hart, 1986. "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration," *Journal of Political Economy*, Vol. 94(4), pp. 691-719.

Hansmann, Henry, 1996. "The Changing roles of Public, Private, and Nonprofit Enterprise in Education, Health Care and Other Human Services" in Victor R. Fuchs ed., *Individual and Social Responsibility: Child Care, Education, Medical Care, and Long Term Care in America*. Chicago: University Press of Chicago.

Hanushek, Eric A., 1996. "Rationalizing School Spending: Efficiency, Externalities, and Equity, and Their Connection to Rising Costs" in Victor R. Fuchs ed., *Individual and Social Responsibility: Child Care, Education, Medical Care, and Long Term Care in America*. Chicago: University Press of Chicago.

Hart, Oliver, 1995. *Firms, Contacts, and Financial Structure*, Oxford: Oxford University Press.

Hart, Oliver and John Moore, 1990. "Property Rights and the Nature of the Firm," *Journal of Political Economy*, Vol. 98(6), pp. 1119-1158.

Hart, Oliver, Andrei Shleifer and Robert W. Vishny, 1997. "The Proper Scope of Government: Theory and an Application to Prisons," *Quarterly Journal of Economics*, Vol 112(4), pp. 1127-1161.

Hayek, Friedrich, 1944. *The Road to Serfdom*, Chicago: University of Chicago Press.

Holmstrom, Bengt and Paul Milgrom, 1991. "Multi-task Principal-Agent Analyses: Incentive Contracts, Asset Ownership and Job Design," *Journal of Law, Economics and Organization*, Vol. 7, pp. 24-52.

Holmstrom, Bengt and Paul Milgrom, 1994. "The Firm as an Incentive System," *American Economic Review*, Vol. 84, pp. 972-91.

Hoxby, Caroline Minter, 1995. "Does Competition Among Public Schools Benefit Students and Taxpayers?" National Bureau of Economic Research Working Paper 4979.

Hoxby, Caroline Minter, 1996. "Are Efficiency and Equity in School Finance Substitutes or Compliments?" *Journal of Economic Perspectives,* Vol. 10(4), pp. 51-72.

Jewkes, John, 1948. *Ordeal by Planning*. London: MacMillan and Co.

Kaufmann, Daniel and Paul Siegelbaum, 1997. "Privatization and Corruption in Transition Economies," *Journal of International Affairs* Vol. 50 (2), pp. 419-464.

Kremer, Michael and Andrei Sarychev, 1998, "Why do Governments Operate Schools?" MIT Mimeo.

Lange, Oscar, 1936. "On the Economic Theory of Socialism: Part One/ Part Two," *Review of Economic Studies* Vol. 4(1), pp. 53-71 and (2), pp. 123-142.

Lerner, Abba, 1944. *The Economics of Control*, London: MacMillan.

La Porta, Rafael and Florencio Lopez-de-Silanes, 1997. "The Benefits of Privatization: Evidence from Mexico," NBER Working Paper No. 6215.

Lewis, W. Arthur, 1949. *The Principles of Economic Planning*, London: George Allen & Unwin Ltd.

Logan, Charles, 1990. *Private Prisons: Cons and Pros*, New York: Oxford University Press.

Lopez-de-Silanes, Florencio, 1997. "Determinants of Privatization Prices," *Quarterly Journal of Economics* 112(4), pp. 965-1026.

Lopez-de-Silanes, Florencio, Andrei Shleifer, and Robert W. Vishny, 1997. "Privatization in the United States," *Rand Journal of Economics*, Vol. 28(3), pp. 447-471.

Lott, John R., 1990. "An Explanation for Public Provision of Schooling: The Importance of Indoctrination," *Journal of Law and Economics*, Vol. 33(1), pp. 199-232.

Low, Patrick, undated. “Preshipment Inspection Services,” World Bank Mimeo.

Marshall, Alfred, 1907. “The Social Possibilities of Economic Chivalry,” *Economic Journal* Vol. 17, pp. 7-29. Reprinted in A.C. Pigou, ed., 1925, *Memorials of Alfred Marshall*, London: Macmillan, pp. 323-346.

Meade, James Edward, 1948. *Planning and the Price Mechanism: the Liberal Socialist Solution*, London: George Allen & Unwin Ltd.

Megginson, William L., Robert C. Nash, and Matthias van Randenborgh, 1994. “The Financial and Operating Performance of Newly Privatized Firms: an International Empirical Analysis,” *Journal of Finance*, Vol. 49(2), pp.403-452.

Moe, Terry M., 1995. *Private Vouchers*, Stanford: Hoover Institution Press.

Peltzman, Sam, 1993. "The Political Economy of the Decline of American Public Education," *Journal of Law and Economics*, Vol. 36(1:2), pp. 331-370.

Peltzman, Sam, 1996. "Political Economy of Public Education: Non-College Bound Students," *Journal of Law and Economics*, Vol. 39(1), pp. 73-120.

Pigou, Alfred C., 1938. *The Economics of Welfare*, 4th ed., London: Macmillan.

Poterba, James M., 1996. "Government Intervention in the Markets for Education and Health Care: How and Why?" in Victor R. Fuchs ed., *Individual and Social Responsibility: Child Care, Education, Medical Care, and Long Term Care in America*. Chicago: University Press of Chicago.

Robbins, Lionel, 1947. *The Economic Problem in War and Peace*, London: MacMillan.

Rouse, Cecilia, 1998. "Private School Vouchers and Student Achievement: An Evaluation of Milwaukee Parental Choice Program," *Quarterly Journal of Economics*, vol. 113(2), pp. 553-602.

Samuelson, Paul A., 1948. *Economics*. New York: McGraw-Hill, Inc.

Savas, E. S., 1982. *Privatizing the Public Sector: How to Shrink Government*, Chatham, NJ: Chatham House Publishers.

Schumpeter, Joseph, 1942. *Capitalism, Socialism, and Democracy*, New York: Harper and Row.

Shleifer, Andrei and Robert W. Vishny 1993. "Corruption," *Quarterly Journal of Economics,* Vol. 108(3), pp. 599-618.

Shleifer, Andrei and Robert W. Vishny, 1994. "Politicians and Firms," *Quarterly Journal of Economics*, Vol. 109(4), pp. 995-1025.

Shleifer, Andrei and Robert W. Vishny, 1998, *The Grabbing Hand: Government Pathologies and their Cures*, Cambridge, MA: Harvard University Press.

Simons, Henry C., 1934, "A Positive Program for Laissez-Faire," in *Economic Policy for a Free Society*, 1948, Chicago: University Press of Chicago.

Stiglitz, Joseph E., 1989. "On the Economic Role of the State." Reprinted in Heertje, A., *The Economic Role of the State.* Oxford: Blackwell.

Stiglitz, Joseph E., 1994. *Whither Socialism*. Cambridge: MIT Press.

Tierney, John, 1988. *The U.S. Postal Service*, New York: Auburn House.

Tirole, Jean, 1994. "The Internal Organization of Government," *Oxford Economic Papers*, Vol. 46, pp. 1-29.

Weisbrod, Burton, 1988. *Non Profit Economy*, Cambridge, MA: Harvard University Press.

Williamson, Oliver, 1994. "Public and Private Bureaucracies," Mimeo.

Wilson, James Q., 1989. *Bureaucracy*: *What Government Agencies Do and Why They Do It*, New York: Basic Books.

Winston, Clifford, 1998. "U.S. Industry Adjustment to Economic Deregulation," *Journal of Economic Perspectives*, Vol. 12(2), pp. 175-196.

World Bank, 1995. *Bureaucrats in Business*, London: Oxford University Press.