

# THE LITERATURE ON PRIVATIZATION

by

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**Abstract**

The privatization literature focuses on three related areas: productive efficiency, the government budget, and privatization techniques. Where competitive product and capital markets exist, privatization is likely to improve productive efficiency. Such improvement makes possible fiscal gains, which may also be derived from reductions in government largess. These conclusions are weakly supported by an empirical literature that is often plagued by ambiguous results. The techniques literature provides policy guidelines for achieving the maximum benefits from privatization under a variety of different economic and political circumstances. Despite speculation that privatization aids capital market development, little has been done to support these claims.

The literature on privatization focuses on three related areas: productive efficiency, the government budget, and privatization techniques. The common conclusion of both theoretical and empirical studies of productive efficiency is that the private sector is superior when competitive product and capital markets exist. The strength of this conclusion weakens, however, as competition is relaxed. The conclusion of the literature regarding the budgetary effect of privatization is even more tenuous. Privatization, like any asset swap, need not affect government wealth. The government gains to the extent that private ownership improves productive efficiency or facilitates a reduction in government largess. At the same time, the government may incur costs stemming from the regulation of privatized natural monopolies and from the transaction itself. The discussion of "how to" privatize, largely created by agencies that assist privatization programs, emphasizes the method of privatization as the key determinate of the value of government receipts and the degree of allocative and productive efficiency achieved by the sale. The technique used can also facilitate inflows of capital and expertise to the benefit of the whole economy.

The effects of privatization on capital markets has also been discussed in the literature, but without a definitive conclusion. Public officials and industry participants have speculated that privatization might aid capital market development by increasing stock values, reducing volatility, promoting liquidity, and improving the allocation of risk within an economy. These claims go beyond what has been shown in the academic literature, however.

## I. Literature on Efficiency

The strength of privatization as an important component of structural reform stems from the perception that state-owned enterprises (SOEs) are poorly run compared to private corporations. The context of this discussion is one of imperfect competition, for if the all assumptions of pure competition were met, all inefficient private firms would be eliminated. Notwithstanding the efficiency problems with oligopolistic and monopolistic markets, the literature argues that the responsiveness of private management to shareholder/owner goals still results in an efficiency advantage for private firms in most circumstances.

### **Arguments in Favor of Private Enterprise**

The theoretical literature traces the origins of performance differential in favor of private enterprise to the moral hazard created by the separation of ownership and control--the so-called principal-agent problem.<sup>1</sup> The principal, or owner, and agent, or manager, each have objectives, but which mutually conflict. The principal's objective is generally to maximize profits, possibility subject to achieving specific social goals. The agent, in his/her self interest, shares many concerns of the principal, but the agent's objectives may also include achieving personal goals, most commonly income, status, and perks. Because the agent is better informed on the business of the firm than the

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<sup>1</sup> For a concise exposition of the principal-agent problem see Arrow (1986).

principal, he/she can exploit this information to pursue his/her own objectives at the expense of those of the principal. The issue of allocative inefficiency arises not because the principal and agent tussle over profits, but because the conflict between the two also results in decisions that waste real resources.

The principal-agent framework provides two reasons why public firms are likely to underperform private firms. First, diffuse ownership of public firms dilutes the incentive of owners to exercise control. Moreover, competing authorities among public principals makes it more likely that they will present complex, poorly defined objectives to their agents. Second, the public firms are often insulated from market forces that, for private firms, can compensate for weak control by the principals. There is no autonomous method for taking over a public firm and, if it has access to government funding, no sure way to render it bankrupt.

#### *Diffusion of Ownership*

The argument that diffuse ownership, public or private, contributes to reduced efficiency of the firm is that, where ownership is diffuse, each shareholder has little personal incentive to work for improved management (Jensen and Meckling, 1976). Any possible gains are diluted among all shareholders and passive owners get a free ride provided by owners who do make the effort to monitor management. The more weakly management is monitored, the greater its opportunity to pursue its own objectives to the detriment of all shareholders.

In the public sector, not only is the market's constraint on management behavior absent, but there are incentives for decisions to be made on non-market grounds. The market constraint is missing because each citizen is an owner of a public firm, and therefore no one citizen feels much proprietary responsibility towards the firm (Alchian and Demsetz, 1972). Groups that do influence management are likely to be special interests such as labor unions, suppliers, and customers. To the extent that they are more aggressive in pursuing their interest than the firm's principals, they may be able to obtain special benefits at a cost to the public at large (Zeckhauser and Horn, 1989).

A variant on this argument is that the set of objectives facing public firms is more easily distorted from the ideal of efficient production. The distortion results from the presence of intermediaries between owners and management. In the case of the owner/manager, there is no chance for distortion. Slippage is possible, however, for the private corporation, where a board of directors represents shareholder preferences, but may insert its own objectives (Holmstrom and Tirole, 1992). The likelihood of distortion is much greater in the public sector, where the political process is at work. The interplay of legislators, ministers, and civil servants, who are each responsible for some of the population's objectives, may result in conflicting goals for state enterprise. For instance, the Ministry of Finance may desire cost minimization, while the Ministry of Labor may mandate maximum employment (Aharoni, 1981). Government officials also

have objectives distinct from those of the population and may use SOEs to their own ends, such as a tool of patronage (Vickers and Yarrow, 1988). In this situation, there are no clear criteria for even the government to measure management's performance. Further, the monitoring costs rise with the number of government objectives (Estrin and Perotin, 1987).

### *Takeover*

The literature maintains that for the private sector, even in cases in which ownership is diffuse, the threat of takeover offsets much of the tendency towards inefficiency. Wide ownership of private firms is possible only for corporations. If management performs poorly, shareholders will demonstrate their dissatisfaction by selling their share of ownership, thereby reducing the price of the firm's stock. The stock price may fall to levels that appear low compared with prices of similar companies. This offers the possibility for profit to be made by purchasing a controlling stake in the firm and replacing the poorly performing incumbents (Manne, 1965). Thus, for private, but not public firms, the market provides an avenue, and incentive, for changing corporate governance and thereby enhancing the operating efficiency of the firm.

The literature espousing the effectiveness of the market for corporate governance is not without its critics. For instance, Grossman and Hart (1980) argue that incumbent shareholders, anticipating new management, would not sell their shares at prices that would make a takeover attractive. Shleifer and Vishny (1989)

argue that management may entrench itself by making investments specific to his/her human capital. In order to punish management for inferior investments, shareholders would have to accept even lower profits. Managers may also seek to maximize the size, rather than the profits, of a firm in order to make a takeover more difficult to finance (Scherer, 1980, pp. 29-41). Finally, some have argued (Franks and Mayer, 1990, for example) that the potential of takeover makes firms less efficient by inhibiting employee investment in firm-specific human capital and reducing the value to management of long-term investments. Franks and Mayer and others cite the infrequency of takeovers in some successful countries like Japan and Germany, as a reason why managers in those countries are often credited for having longer time horizons.

### *Bankruptcy*

The final argument in the literature in favor of the relative efficiency of private firms makes the point that the threat of bankruptcy facing private, but not public, firms constrains the ability of management to waste resources. Jensen (1989) argues that as a private firm becomes highly indebted, the incentives facing a manager become more aligned with those of the shareholder. To maintain his/her employment, the manager must cut costs to keep the firm in business. Were the firm to become insolvent, its creditors would restructure the firm and replace management. Nevertheless, alternative arguments have been constructed. For instance, Vickers and Yarrow (1988) assert that



the expected discounted value of employment for the manager of a firm likely to go bankrupt may fall below the subjective value of taking life easily.

In the case of public firms, access to government funds removes bankruptcy as a constraint on management's pursuit of its own objectives. Moreover, labor unions and suppliers of other inputs can often exploit a soft budget constraint (Kornai, 1980). Being less constrained to reduce costs, the manager of an SOE can create rents by overpaying suppliers. Suppliers then compete for the rent by offering the manager bribes in return for the contract. In Italy, for example, where reported SOEs losses stood at approximately \$1 billion in 1991, over 2,000 public officials and enterprise managers have been investigated for taking kickbacks from contractors.

### **Complementary Reforms**

The arguments given so far in support of the relative efficiency of private firms assume an economic environment conducive to private enterprise. In practice, this is not always the case. The literature points out that the competitive environment, itself, is an important independent factor affecting the performance of both publicly and privately owned firms. Likewise, the regulatory environment may seriously affect the managerial efficiency in PCs thereby reducing the potential gains from privatization.

### *Competition*

Kay and Thompson (1986), Domberger and Piggott (1986), Hemming and Mansoor (1988), Vickers and Yarrow (1988, 1991) have argued that product market competition is more important to efficiency than ownership *per se*. If a state firm buys inputs at market prices, sells its output in a competitive environment, and has a hard budget constraint, then it must be as efficient as a private firm to survive. If these conditions do not apply, then reforms to improve the competitive environment and force the state to operate on a commercial basis would help to improve performance whether or not the state enterprises are eventually privatized.

Promoting a competitive environment is a broad topic that encompasses most policy areas, including macroeconomic policies to encourage price stability and growth. The performance of capital markets is one specific area in which researchers have focused their attention. Where these markets are absent, the goal is to encourage their formation and growth (Commander and Killick, 1988). Where they are ineffective, the remedy is to remove bottlenecks like interest rate and credit controls. The intent is to enable funds to flow to enterprises in which they can best be used and encourage efficiency in the private sector as described above (Domberger and Piggott, 1986).

Another area of concern in the privatization literature is product markets (Beesley and Littlechild, 1983, Vickers and Yarrow, 1988, 1991). In the domestic sphere, the object is to remove price controls and regulatory barriers. In the

international sphere, the goal is to remove tariffs, quotas, and other impediments to trade (Cook and Kirkpatrick, 1988). In both cases, the purpose is to harness the price system to obtain both allocative and productive efficiency.

With respect to state enterprises, commercialization has been discussed either as a precondition for or as an alternative to privatization. The intent here is to have the SOE operate subject to the same constraints as a private firm (Commander and Killick, 1988). Management would be given latitude to make its own operational and marketing decisions; the firm would not be subsidized and would be subject to bankruptcy; and government officials would be precluded in meddling in the affairs of the firm. Social objectives could then be met through formal contracts between management and government (Ramaruti, 1991). The World Bank (1992) provides a cautionary note, observing that political pressures gradually eroded the efficiency gains from commercialization in many reforming countries.

The transformation of centrally planned economies to market economies involves even more thoroughgoing reforms. Such economies require new commercial, banking, and legal codes in order to establish a framework for commerce with private property rights (Sachs and Lipton, 1990). The importance of a competitive environment has been noted in these countries. In the case of Poland, where privatization has been slow but policies to increase competition with foreigners and to reduce subsidies to enterprises have been strong, Pinto, Belka, and Krajewski (1993) have argued

that the force of competition that has brought about substantial efficiency improvements. In China, moreover, Rawski (1992) attributes much of the country's recent and very dynamic growth to increased competition among the country's SOEs.

### *Regulation*

In industries in which privatization is likely to lead to excess market power, regulation is a natural accompaniment to the process. To privatize and not to regulate in such circumstances would risk politically and economically unacceptable behavior from formerly state-owned firms. Vickers and Yarrow (1991) point out, however, that countries with pervasive state ownership have little regulatory experience. Establishing regulatory authorities in such circumstances may require effort to develop a professional corp of regulators and create channels of information on the regulated firms.

Notwithstanding the usefulness of regulation, much of the literature treats regulation as a necessary evil. Laffont and Tirole (1993) see regulators as dependent on the regulated for information and, consequently, prone to impose arbitrary rules that distort incentives facing management and limit the returns to owners from monitoring management. Given the efficiency losses caused by a lack of competition and the additional distortions caused by regulation, Yarrow (1986), Hemming and Mansoor (1988), and Heller and Schiller (1989) have argued that the privatization of natural monopolies are unlikely to yield many efficiency gains.

A more extreme view of regulation originates with Stigler (1971), who emphasizes the "capture" of regulators by the regulated. Regulation is, then, the result of efforts by self-interested groups to obtain rents from the government in the form of monopolies created through regulation. In such cases, deregulation will yield efficiency gains similar to those of privatization.

### **Empirical Studies of Efficiency**

The approximately 100 studies comparing the relative efficiency of SOEs and PCs generally support the conclusions of theory. In competitive environments, public enterprises rarely outperform private enterprises and generally perform worse. In highly regulated industries, the public sector's performance is relatively better, occasionally outperforming the private sector. In developing countries, where the economic environment is less suited to private enterprise, studies likewise show less evidence of superior performance of private firms. The results of the empirical studies are rarely unanimous, however, and often contradictory.

An important critique of many studies is that the gauging of efficiency by profits or costs biases the answer in favor of private firms. This is because SOEs may serve a public interest function like not exploiting a monopoly position or hiring from disadvantaged groups. Borchertding (1982) argues that many studies, by focusing on costs alone, fail to identify the reasons

behind differences in private and public firms. In his view, only pure measures of technical efficiency should be discussed.

The bulk of the literature concerning competitive firms in developed countries supports the contention that the private sector is the relatively more efficient. The largest study done to date by Boardman and Vining (1992) compared factor productivity measures for five hundred internationally competing firms, of which many were state-owned. After controlling for differences in sectors and countries, the study finds that the private sector performance is overwhelmingly superior.

There are exceptions to this rule, however. Caves and Christensen (1982) found that the two competing railroads in Canada, one public and one private, had nearly identical levels of total factor productivity. Caves and Christensen chose the railroad sector because both railroad companies had to conform to strict regulations that limited differences between the firms. In his study of German life insurers, Finsinger (1984) found public insurers had lower costs than their private competitors. Critics of these studies have argued that regulation itself eliminates the value of comparing performance by reducing the degree to which managers can affect outcomes.

An example of a sector in which researchers have found that regulation has shifted the efficiency edge to public firms is the U.S. electric power industry. Yunker (1975), Meyer (1975), and Neuberger (1977) all found that public sector electric power companies had lower costs per unit of output than private sector

utilities. One objection to these studies, that public firms might have lower costs because they can borrow cheaply, was rejected by Pescatrice and Trapani (1980). They adjusted for the cost of capital for each firm and still found lower costs in the public sector. One of the most recent and most technically sophisticated study in this sector was done by Fare, Grosskopf, and Logan (1985). By using a non-linear programming approach, these authors confirm a higher level of technical efficiency in publicly-owned utilities. These conclusions are not unanimous, however, some authors that claim to have shown the opposite (for instance, De Alessi, 1974, 1977, and Peltzman, 1971).

Another class of exceptions is found in some studies of firms in the developing countries. Competition and capital markets are often weak in the less developed world and, correspondingly, the evidence is less certain that privatization increases efficiency. Millward (1988) in his survey of studies on less developed countries found no statistical evidence that SOEs in LDCs have lower technical efficiency than private firms. Millward noted that privatization studies have been plagued by limited and questionable data. Two of the most comprehensive studies, Kim (1981) and Tyler (1979) found no statistical difference in the efficiency of public and private firms.

The studies discussed thus far have compared technical efficiency in different SOEs and PCs while controlling for as many factors as the data allow. A different approach to the efficiency question is to compare the performance of firms before and after

their privatization. In their study, the World Bank (1994) follows the performance of twelve such firms. Among the firms selected were members of both competitive and regulated industries and companies domiciled in developed and developing countries. The study concludes that in nearly every case, performance as measured by a broad range of indicators has improved with privatization. Bishop and Thompson (1993), using this approach, have identified large efficiency gains in formerly state-owned British enterprises. While they associate much of the efficiency gains to privatization itself, many of the improvements were the result of the firms' restructuring prior to sale. Bishop and Thompson also note that efficiency gains were much larger in firms that faced direct competition after privatization. Similarly, Adams, Cavendish, and Mistry (1992) also note efficiency gains at privatized Malaysian firms. The most comprehensive study to date, conducted by Meggison, Nash, and Van Randenborgh (1994) followed the performance of 61 firms from 18 countries and 32 industries and found significant improvement in both profitability and in operational efficiency in the three years after privatization.

## II. Fiscal Issues

The most commonly articulated motive for privatization is to cut budget deficits. In order for privatization to do this, the expected present value of the firm in the private sector-- inclusive of the taxes that the firm will have to pay and exclusive of costs to the government of privatizing--must be



greater than the expected present value of the net revenue that the firm could generate in the public sector. Part of the answer once again involves efficiency: the advantage of private firms in achieving real efficiencies and the effectiveness of private owners in garnering rents that would have accrued to the managers of public firms (Hemming and Mansoor, 1988). These considerations have already been discussed. The literature also makes two other points with regard to the fiscal impact of privatization. One is that risk, and therefore the rate at which anticipated earnings streams are capitalized, differs between public and private owners, but not necessarily in favor of either one. The other is that political considerations associated with privatization may keep SOEs in the public sector even if privatization appeared to be profitable. The empirical work on this issue is weak and only gives partial answers.

### **Risk**

The fiscal gains of privatization will be reduced where capital markets are weak. The government, through its power to tax the entire population, can widely spread risk. If the private sector has difficulty diversifying, it will require a risk premium to accept ownership of risky activities (Sappington and Stiglitz, 1987). The private sector is also more likely to default on debt, further increasing its cost of capital (Rosa, 1988). The reverse situation is also possible, highly diversified multinational firms may be better able to absorb risk than any domestic entity including the government (Adams, Cavendish, and Mistry, 1992).

Another type of risk arises when accounting and reporting mechanisms are poor. In these circumstances, the information available about a firm's balance sheet and prospects may be extremely limited, thereby increasing the *ex ante* risk of ownership to potential private purchasers (Bouin and Michalet, 1991) and thus limiting the amount that the government could receive by privatizing.

A third type of risk stems from the government itself. If investors believe that the possibility of renationalization, excessive regulation, or government interference is high, they will discount on the price offered for the firm (Bates, 1989). The price, then, will depend on the credibility of any guarantees offered by the government in its behalf and that of its successors concerning future policies.

Risk may also tilt the balance in favor of the private sector. Governments with debt problems may find that the private sector has lower funding costs so that privatization is the cheapest method of financing fiscal deficits (Jones, Tandon, and Vogelsang, 1991). This assumes that the government assurances minimize the concern of transfer risk to potential buyers of SOEs. Privatization may also be the preferred method of finance for cases in which the alternative to privatization is money creation, although the costs of accelerated inflation are not so easily measured.

### **Political Considerations**

According to Jones (1985), SOEs have been popular because politicians have found them to be excellent means to distribute rents and to build constituencies. SOEs are effective tools for conferring benefits whose costs are hidden as production subsidies or lower profits. The groups that can benefit from SOEs are its consumers, employees, and suppliers. For instance, most oil producing countries heavily underprice petroleum products, to the detriment of the government's fiscal position. Employees also represent a formidable opponent to privatization, often rioting and demonstrating to prevent reform (Aharoni, 1991). An example of supplier opposition to privatization, given by Fraga (1991), is the resistance of large elements of the Argentine private sector to the loss of easy and lucrative contracts with SOEs. To the extent that the government must buy off interest groups that stand to lose, the fiscal gains from privatization are limited to improvements in real allocational efficiency.

Peltzman (1989) takes this argument one step further. He argues that SOEs and regulations are concentrated in the same areas because they both are means of subsidizing politically powerful groups. For instance, state ownership of railways might be the most efficient way to subsidize unprofitable activities, such as lightly used routes. SOEs exist, then, because they are the most efficient way to satisfy political demands. Attempting to subsidize (or buy off) the beneficiaries of public enterprises

would be more expensive than allowing enterprises to remain state-owned.

Politics also plays a role in reducing the likelihood that privatization programs will yield the maximum fiscal benefit. Bouin and Michalet (1991) argue, for example, that governments, fearing a loss of political control due to a cash shortage, may heavily discount future benefits. To these authors, this explains why many privatization programs occur during economic downturns when asset prices are weak and SOE performance is at its worst, thereby reducing fiscal gains. Another means by which political concerns can reduce privatization receipts involves the government's effort to protect its reputation. Fearing embarrassment should a SOE fail to be sold on schedule, the government may underprice shares to insure their sale (Vernon, 1991).

### **Empirical Studies**

To date, most studies have not addressed the fiscal impact of privatization directly. Only a few attempts have been made to compare post-privatization government's finances to the counterfactual situation of no privatization. Researchers have relied instead on indirect measures that are merely suggestive of fiscal effects.

One method commonly employed is to compare the sale price at privatization with the book value. Using this method, Yatopoulos (1989) notes that the privatizations in Chile which occurred between 1974 and 1978 yielded revenues worth only 60 percent of

the book value of the companies. The author attributes the 40 percent discount in part to the severe recession and excessive speed of the program. Bishop and Kay (1989) find that the privatization of the public housing stock in England in the early 1980s yielded revenues of only 75 percent of the book value of the properties. Their explanation is that the government was distributing rents to a sizable constituency.

Another method has been to measure changes in the fiscal budget of transfers to SOEs. Adams, Cavendish, and Mistry (1992) measure these effects in seven developing countries in the period between 1982 and 1988. The reduction in transfers to SOEs ranged from 10.5 percent of GDP in Trinidad and Tobago to a reduction of 1 percent in Papua New Guinea. Bouin and Michalet (1991) find reductions of similar magnitude in their multicountry study. The World Bank (1992) documented a 50 percent decline in the Mexican government's transfers to SOEs between 1982 and 1988, although much of these gains stem from the 1982 stabilization effort.

There are only a few studies to date that have rigorously followed the revenues of individual firms before and after privatization. The 1992 World Bank study provides a few examples of improved company earnings after privatization. In the study, Argentina and Malaysia significantly increased government revenues after privatization. In one case, however, ENERSIS, the Chilean electricity distributor, the net annual flow of funds to the government declined. A study of the privatization of 22 small textile mills in Bangladesh by Lorsh (1991) also found a net loss

immediately following the privatization. Lorsh attributes this to suspected tax evasion on the part of the privatized firms and to the costs to the government of negotiating the sale.

### III. The "How To" Literature

A literature has grown in recent years on how to prepare for and implement a privatization program. Preparation for the program often requires restructuring SOEs and creating regulatory agencies, while implementing it involves the careful selection of the appropriate sale method so as to maximize allocative and productive efficiency and to increase revenue from the sale. The choice of the optimal sale method depends on the underlying economic conditions in a country.

#### **Preparation**

Because many SOEs, particularly in developing economies, are performing poorly, restructuring the companies before privatization is often desirable to attract buyers and to increase the amount of revenue raised. One problem is inadequate accounting information on the firm. Vuylsteke (1988) suggests that the government audit firms and provide the information to investors. On occasion, the government may have to assume the firm's debt. Another problem may be excessive size. Nankani (1988) finds that breaking up some large and overly diversified SOEs makes them more affordable to the private sector and increases their value. Overstaffing is a third problem frequently of concern. The government may have to remove excess workers in order to attract investors (World Bank, 1992). For example, under

new management, the Argentine oil company, YPF, shed 80 percent of its 50,000 laborers prior to sale.

Privatizing a monopoly also presents problems that can be handled in advance of sale. Leeds (1991) argues that creation of regulatory agencies, a time consuming and politicized process, must precede the privatization of natural monopolies. The desire of governments to maximize revenues from the sale and the lobbying of employees and management against being forced to face competition often result in SOEs being privatized with monopoly power (Kay and Thompson, 1986). Moreover, the World Bank (1992) recommends that, where possible, state monopolies should be separated into competitive and noncompetitive parts. For example, the Argentine gas company, Gas del Estado, was broken up into eight competing firms with only the distribution network remaining a monopoly.

### **Implementation**

Most methods of privatizations are derivatives of either public or private offer. *A priori*, there is no right or wrong answer on which method is best. What matters is what is most appropriate for the conditions at hand.

#### *Public Offer*

Public offer is the most common method of privatization in developed countries. Public offers maximize revenue by drawing from large investment pools which, if shares are offered globally, can include the entire world. Public offers may also aid capital market development by increasing the volume of available equity

and attracting new investors (Vuylsteke, 1988). A large number of shareholders also increases the cost to future governments of renationalization (Bouin and Michalet, 1991).

Public offers have two serious flaws in countries with undeveloped equity markets. First, public offers lead to diffuse ownership, which creates productive inefficiencies in countries without an established market for means of changing corporate governance. Second, large equity issues in small markets cause prices to decline. For example, the 1992 offering of Telefonica, an Argentine telephone company, caused a stock market crash and seriously delayed other sales.

Public offerings can also slow privatization when accounting rules are inadequate. The time required to acquire and dispense information on the investment quality may make public offer undesirable. Further, expensive accounting expertise may be necessary. In Eastern Europe, the lack of information concerning potential profitability has deterred the use of public offers on a mass scale (Blanchard et al, 1991).

#### *Private Sale*

Private sales eliminate some of the problems of public offer. Private sale guarantees concentrated ownership and often requires less gathering of information and restructuring prior to the sale. Private sales can also be used in conjunction with public offers. The government first sells a large portion of a firm to a "core" investor, who, by virtue of his/her leading stake, would have an incentive to monitor management. Later, when the firm's



performance has improved and accounting standards have been met, the government can sell the remaining shares by public offer (Vuylsteke, 1988).

The drawback to private sales is that they are difficult to arrange when there are few acceptable large investors. The initial rationale for many SOEs, which are frequently among a country's largest firms, was the inability or unwillingness of investors to undertake large investments (Van de Walle, 1989). Another problem is that private sales may concentrate ownership in the hands of conglomerates who can wield monopoly power (Berg and Shirley, 1987). Selling to foreigners, who are able to pay more for SOES and are the most able to improve management and infuse modern technology, is frequently the most desirable solution but is often politically impossible.

#### *Hybrid Methods*

Employee/Management buyout is a variant of public and private offer in which a specific group is targeted. Issuing equity to management or the employees allows poorly performing SOEs, which might otherwise not find a buyer, to be sold (Berg and Shirley, 1987). This method also eases the opposition of workers and management to privatization (Leeds, 1991).

Another variant of public and private offer is to raise new capital. This method allows the simultaneous recapitalization and partial privatization of an SOE. The dilution of government ownership may be less politically disruptive than direct sale.

The debt/equity swap is a common method for developing countries in which debt relief is an additional concern. For heavily indebted countries, swaps can improve the financial climate and achieve privatization simultaneously (World Bank, 1992).

Voucher programs are limited primarily to emerging market economies where conditions for other methods of privatization are poor. Vouchers can be used to privatize an economy overnight whatever the status of the capital market and the stock of savings. By distributing wealth to the citizenry, this program can also overcome resistance to privatization. The weakness of this method is that it guarantees diffuse ownership (Frydman et al, 1993). The Czech Republic's experience with vouchers suggests that the spontaneous creation to institutional investors may eliminate this problem, however (PlanEcon, 1993).

Management contracts and leases of state assets are methods that can be used when the government cannot or is unwilling to sell SOEs. This method is common in many African countries with very poor financial markets. By privatizing management, this method can improve efficiency (Vuylsteke, 1988). The continued link between the firm and the government budget may limit gains, however (Bouin and Michalet, 1991). Contracts and leases can also be used to improve SOE performance prior to privatization.

#### *Pricing, Financing, and Timing Issues*

Pricing of an SOE is a politically charged issue. An overpriced firm may not sell, thereby embarrassing the government.

Underpricing risks foregoing revenues. The World Bank (1992) suggests two methods to reduce the risks of pricing. First, SOEs can be sold in small tranches so that prices can be adjusted according to experience. Second, the government can include "clawback" clauses that allow the government to share gains in the resale of undervalued property.

In some countries, financial resources are limited compared to the size of SOEs. One solution is to sell firms on credit. While selling on credit can increase the number of potential buyers, it can lead to reckless behavior and may result in renationalization if buyers default (World Bank, 1992). This happened in Chile in the early 1980s when more than half of previously privatized firms were renationalized (Nankani, 1988).

The problem of financing in Eastern Europe is particularly serious. Lipton and Sachs (1990) have argued that, given the dearth of domestic savings, firms should be given away. Others, such as Bolton and Gerard (1992), argue that the fiscal situation of some East European governments is so poor that SOEs must be sold, either to foreigners for cash or domestic citizens for credit.

The speed of privatization is a particularly contentious issue in the context of Eastern Europe. Lipton and Sachs (1990) and Blanchard et al (1991) argue that delay in privatization allows managers and employees to decapitalize their firms. Further, Murrell and Wang (1993) explain that an enlarged private sector may provide positive externalities that improve the

economic environment. Slow privatization may prevent these externalities from being achieved before political opposition brings an end to reforms. A related argument is given by Burda (1993) who argues that the rapid privatization of at least some portion of the economy is necessary to start the transformation process. Others argue that privatization should proceed at a rate that allows nascent institutions to develop, thereby increasing revenue and improving the efficiency of the economy (Kornai, 1990). Similarly, McKinnon (1991) argues that the privatization of profit-making SOEs should await the creation of an adequate tax system to avoid a fiscal crisis.

#### IV. Capital Market Development

Many governments include the development of capital markets as one of the stated objective of privatization. One hope is that privatization will aid equity market development and thereby increase the efficiency of investment by having more funding allocated by the market. There is limited evidence that privatization has helped in this regard, but no evidence that special government efforts like underpricing or rationing shares in SOEs add to the performance of capital markets. The privatization of state-owned financial firms may also improve the allocation of capital in the economy.

#### **Stock Markets**

The central argument is that privatization attracts new investors to the stock market, thereby reducing volatility so that even more investors are attracted. Without a "jump start," a

highly volatile small market would have perpetuated itself because shares would have been too illiquid for many investors (Pagano, 1989). The government can further promote capital market development through such measures as improving market regulation, providing settlement systems and trading technology, removing restrictions on foreign participation, and educating investors about the market (Leeds, 1991).

The very limited number of empirical studies on the subject does provide some evidence that privatization has increased the depth of equity markets. Rowley (1987) cites Bangladesh as an example of how privatization can expand a stock market. Leeds (1991) reports that privatizations in Jamaica increased the value of the equity market by 15 percent. Adams, Cavendish, and Mistry (1992) find that privatization has led to a decrease in the four firm concentration ratio of the Jamaican stock market from 55 percent to 43 percent.

Privatization has also raising the number of individuals who hold equity. Leeds (1991) finds that the Jamaican privatization program has attracted thousands of new shareholders. Similarly, Seth (1989) showed this in several other countries. According to Glade (1991), the 1985-1988 privatization program expanded the number of Chilean stock owners by 77 percent. The most dramatic example is the Czech Republic, where the distribution of stocks of over one thousand companies to the population has led to the spontaneous creation a stock market (PlanEcon, 1993).

Underpricing shares and rationing them so that they are more widely held has been tried by some governments (for example, Argentina, Jamaica, and the United Kingdom), but the feeling in the literature is that this only attracts investors to the specific issue, not as regular savers through the capital markets (Adams, Cavendish, and Mistry, 1992). Leeds notes this point in his study of the Jamaican experience, but little other empirical work has been done.

### **Privatization of Financial Enterprises**

Another argument is that privately owned financial firms are better able to allocate capital than publicly owned firms. For instance, Zank, Mathieson, Nieder, Vickland, and Ivey (1991) argue that public sector financial firms develop fewer products and are less likely to expend effort at loan collection than private firms. Most important, they argue that state-owned financial firms tend to use political goals rather than creditworthiness as the criteria to make investments.

There is some empirical support for this hypothesis. In his study of Australian banking, Davies (1981) finds that state-owned banks keep a larger portion of their portfolio in low-risk government bonds and have higher operating costs than private banks. In 1981, Chile took a different approach to privatization when it adopted laws that encouraged private pension funds to assume responsibilities formerly handled by the social security system. Santamaria (1992) and Diamond (1993) argue that this

innovation channelled savings directly into Chile's capital markets and improved the markets' efficiency.

#### V. Conclusion

The literature on privatization provides compelling reasons to expect that private ownership of productive assets results in greater output than public ownership. By using the principal-agent framework to model the relationships between owners and managers, the literature identifies those institutions that encourage efficiency, such as competitive product markets, developed capital markets, and competent regulation. While the wide variation in the nature of institutions across countries and industries makes generalization about the benefits of specific privatizations difficult, the literature provides a roadmap to policymakers identifying those institutions that must be buttressed to maximize the gain from privatization.

Empirical studies confirm the tendency for private firms to outperform state firms but with the same caveat that differences in productive efficiency vary across situations. While most studies comparing the efficiency of state and private firms find the private sector to be superior, many have weak or conflicting results or find no differences at all. The vagueness of these studies reinforces the idea that differences in public and private efficiency depend on institutional arrangements. Similarly, many recent studies that document efficiency gains from the privatization of individual enterprises cannot control for the

effects of the other institutional reforms that accompany privatization.

Given the strength of the microeconomic case for privatization, there is a surprising lack of research on the macroeconomic consequences of privatization. For example, the literature has not investigated how privatization affects savings and investment. Another area receiving little attention is how privatization affects labor markets.

The literature's discussion of financial markets and privatization may benefit from further research. The privatization of financial intermediaries could improve the efficiency and volume of investment. By reducing transaction costs, financial intermediaries create information about available investment projects. In addition to reducing resource costs, privatizing banks could increase such information externalities, thereby aiding the development of capital markets.



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