PRIVATIZATION IN COMPETITIVE SECTORS: THE RECORD TO DATE

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This paper reviews recent evidence on the impact of privatization and—on the basis of the evidence—highlights the conditions for success. The paper deals mainly with traditional privatization efforts involving enterprises in competitive markets. It shows that privatization improves firms' financial and operating performance, yields positive fiscal and macroeconomic benefits as proceeds are saved rather than spent and as transfers decline and government starts collecting taxes from privatized firms, and improves overall welfare. The popular view that privatization always leads to layoffs is unfounded. While highly protected enterprises have seen significant declines in net employment, competitive firms generally experienced slight declines if any. The question of privatization's effects on wealth and income distribution is only recently receiving the attention of analysts and research is just getting underway.

The paper highlights the conditions for successful privatization: strong political commitment combined with wider public understanding and support for the process; creation of competitive markets—removal of entry and exit barriers, financial sector reforms that create commercially oriented banking systems, effective regulatory framework—to reinforce the benefits of private ownership; transparency in the privatization process; and measures to mitigate the social and environmental impact.

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PRIVATIZATION IN COMPETITIVE SECTORS: THE RECORD TO DATE

1. INTRODUCTION

1. In the last fifteen years privatization has become a central element of the structural reform agenda in developed and developing countries alike. Indeed, it is now quite difficult to find a country that has not embarked on a program to divest some or all of its state-owned enterprises (SOEs) or to involve the private sector in their management, ownership, and financing.

2. The reasons for the rise of privatization are well-established. In general, SOEs performed, and continue to perform, poorly. They proved wasteful and inefficient, tending to produce goods and services of low quality and high cost. They became seriously overstaffed as governments used them to generate and maintain employment. Sheltered from competition, SOEs often were instructed to keep their prices low, resulting in mounting financial losses that in some cases amounted to as much as 5 to 6 percent of GDP. This led to bailouts and fiscal strains, first on government budgets and latterly on the banking system. Covering SOE losses with fiscal transfers required governments to finance larger fiscal deficits and increase tax revenues or, more commonly, reduce public expenditures in other areas, or both. The financing of SOE losses through the state banking system increased intermediation costs, reduced the private sector's access to credit, and threatened overall financial sector viability. Increasingly constrained governments also became incapable of providing capital to their SOEs, even the profitable ones, for maintenance and repair, much less badly-needed network expansion and re-tooling.

3. Numerous attempts through the 1970s and 80s to reform SOEs by imposing hard budget constraints, exposing them to competition, and introducing institutional changes (e.g., in the selection and qualifications of the Board of Directors, in the training and remuneration of managers, in "contractualizing" the relationship between the government and the firm, etc.) produced meager results. In instances where the initial results of such reform were promising, the achievements proved unsustainable; back-sliding was common. By the end of the 1980s, Government ownership itself increasingly came to be seen as a principal reason for the inability to effect major and enduring SOE reform. The perception arose that the merits of public ownership and management of productive assets had been oversold, and that the potential for introducing private entry and participation had been underestimated. This shift accompanied the early privatization programs in Great Britain and a few other OECD countries, which then served as a powerful demonstration effect for countries worldwide. Privatization thus came to be widely accepted as a tool to improve SOE performance and reduce the budgetary burden caused by their inefficiencies.

4. Despite the extensive adoption of privatization, it has from the outset been highly controversial and politically charged. First, there are those who claim that privatization does not produce financial and operational benefits, or at least not enough to offset the social dislocation it causes. Second, there is an acute and pervasive fear that privatization leads to layoffs, first in the

short-term in the firms divested, and then in the longer-run and in the economy at large. Third, there is a widespread belief that even if privatization enhances efficiency, the bulk of its benefits accrue to a privileged few—shareholders, managers, domestic or foreign business interests, those connected to the political elite—while the costs are borne by the many, particularly workers and consumers. In addition, many are concerned that lack of transparency and corruption in the privatization process itself has minimized the intended gains and led to or deepened broader problems of governance.

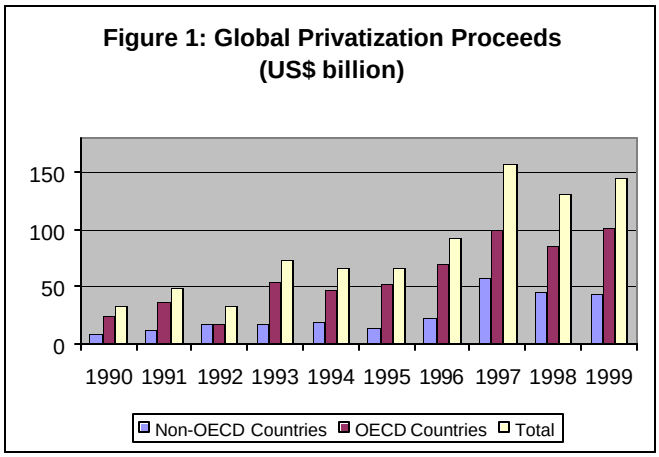
5. This paper takes stock of the empirical evidence on privatization outcomes, and—on the basis of this evidence—highlights the conditions for success. The paper deals mainly with traditional privatization efforts involving enterprises operating in competitive markets; it does not cover infrastructure enterprises (which are the subject of a separate background paper),[1] though a number of general issues arising from infrastructure privatization are mentioned. Section 2 provides a brief review of overall privatization trends over the past ten years. Section 3 reviews the literature on the micro- and macroeconomic impacts of privatization, and also examines the employment and broader distributional impact. Section 4 highlights the key factors for successful privatization.

2. PRIVATIZATION TRENDS[2]

6. Privatization activity has grown in the past ten years, both in terms of number and value of transactions. In the 1980s there were only a few transactions on average per year, but by the late 1990s the annual average rose to about 500. Between 1990 and 1999, total global proceeds amounted to US$850 billion, growing from $30 billion in 1990 to $145 billion in 1999 (Figure 1). Developed countries account for the bulk of the proceeds, mainly from public offerings of large firms in countries of the European Union (Mahboobi, 2000).

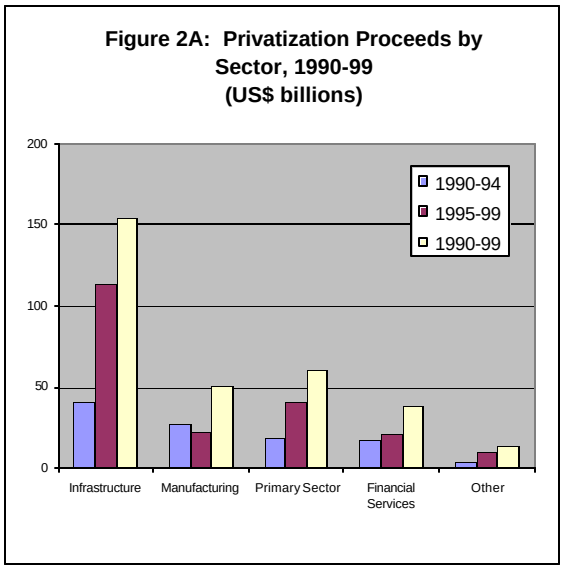
[1] Gray 2001.

[2] Global data on numbers of enterprises privatized are not readily available. Compiling this information from country level data is a difficult task given problems of consistency and comparability; for example, some countries include the privatization of small retail outlets in their figures while others exclude them. Data on global privatization proceeds are available from the World Bank's Global Development Finance, 2001, on which this section is based. The data is on an announcement basis rather than on the basis of actual flows of receipts, which means that privatization commitments do not reflect receipts in a particular year, as transactions may be paid for over several years. Data on privatization revenues should be viewed cautiously as they can be concentrated in a few large public offerings and thus do not reflect the scope or progress of a country's overall program. The discussion here is mainly intended to provide an overview of broad trends rather than comprehensive coverage of privatization activities to date.

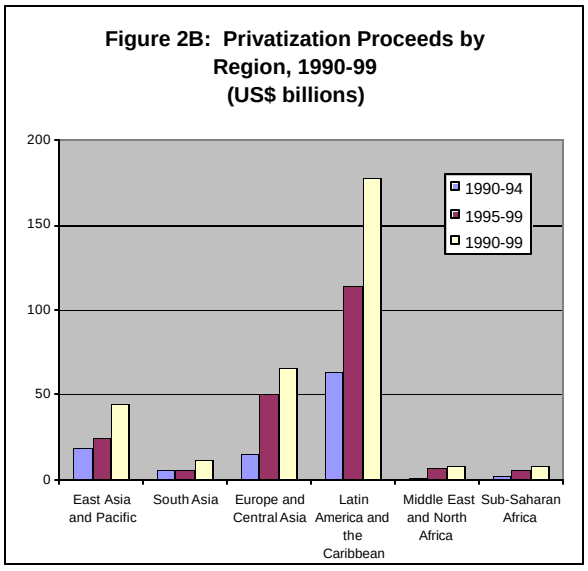


Source: Mahboobi, 2000.

7. Privatization activity in developing countries has been growing. While no accurate account is available, it is safe to say that tens of thousands of enterprises have been sold. A rough estimate is that $250 billion in revenues were raised between 1990-1999. Proceeds increased four-fold since 1990, reaching $44 billion in 1999 after a peak of $66 billion in 1997. The revenues are largely accounted for by infrastructure privatization, mainly telecommunications and power, followed by the primary sector, including petroleum, mining, agriculture, and forestry. Recent large sales have been concentrated in the oil and gas sectors in Argentina, Brazil, India, Poland and Russia. Manufacturing privatizations raised about 16 percent of total developing country proceeds between 1990-99, mainly from sales in Eastern and Central Europe and Latin America (Figure 2A).



Source: Global Development Finance 2001



Source: Global Development Finance 2001

8. In regional terms, Latin America accounted for a large share of non-OECD privatization activity, particularly in terms of revenues (Figure 2B). Countries such as Argentina, Brazil, Bolivia, Chile, and Mexico sold small and medium sized firms at first, but rapidly expanded their

programs to include large infrastructure and energy firms; the largest contributions in recent years came from the sale of infrastructure and/or energy firms in Brazil, Argentina and Mexico.

9. Eastern Europe and Central Asia sold the most number of firms as a result of mass privatization programs which, mainly prior to 1995, divested thousands of enterprises in Russia, the Czech Republic, Kazakhstan, Lithuania, Moldova and Mongolia (among others). But the revenues raised were minimal due to the use of vouchers.[3] Since 1995, however, privatization revenues have been growing as countries such as Estonia, Hungary, Poland, Russia, Slovakia, and others began case-by-case sales, including large firms in banking, transport, oil and gas, and infrastructure. In 1999, the region accounted for 24 percent of developing country privatization proceeds compared to 18 percent in 1994.

10. Prior to the financial crisis of 1997, East Asian countries opted for a different strategy, concentrating on opening up their economies to new private entry, rather than privatizing existing enterprises. This approach was workable, given—outside of China—the region's comparatively smaller reliance on SOEs as agents of economic policy, and the success of China's evolutionary approach to property reform (Box 1). However, the altered circumstances post-crisis, and the need in China to face the burgeoning financial problems of the largest SOEs, led to a renewed emphasis on privatization; some of the larger companies are now being privatized. The region accounted for 12 percent of total proceeds in 1999, with the sale of minority shares in two large enterprises in China accounting for half of all regional activity, followed by Thailand and Indonesia.

11. Privatization revenues in the Middle East and North Africa have been modest, but growing in recent years, largely as a result of Morocco's telecom sale and the privatization of cement and other medium to large sized companies in Egypt. In South Asia, Sri Lanka has had an active program covering virtually all sectors (including infrastructure) but, in terms of revenues, India accounted for the bulk of regional revenues in the past few years as a result of minority share sales in large companies. (The extent to which such minority sales effect efficiency and operating results is questionable, particularly since most of the sales have been to financial institutions that are themselves state-influenced or controlled; see para. 25 below.) The number of sales in Sub-Saharan Africa has risen greatly over the past five years, from 175 in 1990 to over 400 in 1996.[4] By 1998, over 3,000 transactions had been completed, mainly in Mozambique, Angola, Ghana, Zambia, Kenya, Tanzania, and Guinea (Campbell White and Bhatia, 1998). But the relatively small size of the divested firms limited the financial impact: African sales accounted for 3 percent of total developing country proceeds between 1990 and 1999.

[3] In East Germany, which also privatized a large number of firms, revenue generation was decidedly secondary to finding good owners; the seller accepted lower prices in return for investment and employment commitments from the new owners.

[4] This number includes the sale of small retail units and establishments and the sale of minority shares.

Box 1: SOE Reform in China

China launched a major economic reform and liberalization program in the late 1970s that transformed the productivity of the Chinese economy. China's approach to ownership change in industrial firms has evolved slowly and in a piecemeal fashion over the past twenty years; but its reform of ownership in agriculture took place early in the reform process, and was more widespread and swifter in pace. Starting in 1978, government allowed the previously collectivized farmers to retain and sell more and more of their production in increasingly free markets. By the early 1980s, all farmland was "de-collectivized," and allocated to family units, a massive privatization, or re-privatization, process affecting 800 million people. Not all prices were immediately fully freed, the state retained a role in marketing and credit at least until the early 1990s, and one could not freely buy and sell the land allocated. These reforms were revolutionary, affecting the lives of a populous sector, still—in 1978—accounting for 71 percent of employment in China.

SOE productivity in the industrial sector was increased by gradually freeing prices and decentralizing economic decision-making. At the same time, government created forms of industrial ownership, particularly at the sub-national level, that successfully combined elements of collective and private property. Latterly, new private entry and foreign direct investment were permitted. All of this proved efficacious and changed China's economic landscape. In 1998, the non-state sector (including private agriculture) accounted for 62 percent of GDP, while the share of SOEs in industrial output declined from 78 percent in 1978 to 28 percent in 1999.

Since 1987, there have been numerous privatizations of small collectively owned township and village enterprises, and further experimentation with ownership forms at the local level. Small privatizations created management-employee buyouts, known as "joint stock cooperatives". Many of the resulting entities were saddled with heavy debt burdens, excessive employment, and social obligations, and were thus non-viable; in 1995, 72 percent of such firms were in the red. In the mid-1990s, government tried to improve their performance by creating limited liability companies giving managers a larger stake (so as to hold them accountable) and through sales, mergers, and takeovers of SOEs by private firms. Implementation of the Bankruptcy Law also led to some 3,400 SOE bankruptcies since 1996. But few outright sales of medium or large SOEs were allowed.

In the last few years, as long-simmering pressures on the banking system have grown acute, the government has announced its intent to clean up and privatize large SOEs. Many such firms carved out their better assets to set up new companies for initial public offerings on the stock market in which they became the largest controlling shareholder. There has been some dilution of shares over time, but mostly to other state entities with the majority of shares still remaining in state hands. While less concentrated ownership has led to private takeovers in some cases, full privatization continues to move at a slow pace. Most Chinese SOEs being overstaffed and heavily burdened with social welfare responsibilities, authorities are reluctant to take steps that would result in large layoffs, add to unemployment, and perhaps provoke social tension. They do not wish to move in the absence of severance and retirement packages, unemployment insurance schemes and training programs. These take time to build. In the interim, for the largest firms—both in terms of turnover and employees—the Chinese continue to search for mid-way mechanisms that will raise profitability and efficiency without full privatization. Their own experience to date, and the experience of many other countries that followed a similar path, suggests that it will not reap the full benefits from SOE reform unless it limits the state's role in their operations. Economic reforms coupled with privatization would lead to even greater performance improvements.

While China's SOE problems grow increasingly acute (bad loans of SOEs are crippling the commercial banks), many countries in transition or elsewhere would welcome them—if they could be assured that they would be accompanied by the country's impressive growth and production record. The Chinese experience shows the importance and utility of policy pragmatism, and the maintenance of a capacity within the state to formulate and enforce the policies chosen.

Source: Nolan, 1995; International Finance Corporation, 2000; Zhang, 2001.

12. Foreign participation as a share of total developing country proceeds has been increasing over the years, mostly as a result of sales in sectors such as oil and gas, telecommunications, and banking, and largely in Latin America, Eastern Europe, and East Asia. The foreign share reached 76 percent of total proceeds and generated an estimated $32 billion in foreign exchange in 1999. Foreign direct investment accounted for 80 percent, and portfolio investment for the rest.

13. These trends in privatization activity contributed, along with new private entry, to a substantial decline in the relative share of SOE value added in GDP. Sheshinski and Lopez-Calva (1998) show that the share of SOEs in industrialized countries declined from an average of about 6 percent of GDP in 1980 to 5 percent in 1997. The decline for low-income countries is steeper, falling from a high point of 15 percent of GDP in 1980s to 3 percent in 1997, while middle-income countries also experienced significant reductions (Table 1). Since the upper and lower middle-income groups include the transition economies of Central and Eastern Europe, this decline was expected given the high levels of state ownership to begin with and the use of mass and rapid privatization techniques in a number of these countries.

Table 1. Change in SOE's Activity as a Percentage of GDP
(Decrease in percentage points of GDP)

Countries (by Income Groups)	**1980 (%)**	**1997 (%)**	**Change (%)**
Low Income Countries	15	3	-12
Lower Middle Income Countries	11	5	-6
Upper Middle Income Countries	10.5	5	-5.5
High Income Countries	6	5	-1

Source: Sheshinski and Lopez-Calva, 1998.

3. IMPACT OF PRIVATIZATION

14. Sufficient time has elapsed since the start of reforms to allow an initial assessment of the extent to which privatization has met its intended economic and financial benefits. There are to date well over 100 studies that do so, covering privatizations in all sectors through a variety of methods in a large number of developed, developing and transition countries (selected studies are summarized in Annex A). The impacts, and supporting studies, can be grouped into five categories:

- First, most assessments of privatization have looked at financial and operational performance at the enterprise level, comparing productivity and profitability before and after sale, and changes in output, investments, capacity utilization, and the like. These studies provide ample evidence that, when done right, privatization improves performance in many different settings in many different ways.

- Second, there is a limited but growing body of work about the fiscal and macroeconomic effects of privatization showing positive fiscal benefits and a high correlation between privatization and growth.

- Third, the broader welfare and economic consequences of privatization are not as widely studied, though the few rigorous evaluations show that privatization has done well, and that the welfare effects when compared to realistic counterfactuals have been positive, often substantially so.

- Fourth, growing analysis of the employment and broader labor market impacts shows that privatization does not always lead to unemployment, but that the outcomes are mixed, reflecting country and industry differences. When evaluated against the counterfactual, privatization has often led to employment increases at both the enterprise and industry level.

- Fifth, the effects of privatization on income and wealth distribution are the least studied aspects of privatization—though considerable work on these questions is now in progress.

(i) Enterprise performance

15. There is now a wealth of information from a wide range of countries showing that privatization is associated with improvements in the firm's financial and operating performance. Following privatization, profitability usually increases, often substantially, as does efficiency (expressed as real sales per employee), output, and investment. These results are particularly robust for privatized firms operating in sectors where effective competition reigns, such as manufacturing, agro-industry, oil and gas, and mining. As summarized below, these outcomes are seen in cross-cutting studies covering both developed and developing countries, as well as case studies of developing and transition economies.

Cross-cutting studies

16. Megginson and Netter (2001) have carried out the most recent and thorough survey of the studies evaluating empirically the impact of privatization on firm performance. The most comprehensive of these (Megginson, Nash and van Randeborgh, 1994; Boubakri and Cosset, 1998; D'Souza, Nash and Megginson, 2000) use a similar methodology to compare pre- and post-privatization financial and operational performance measures (over three year periods) of large numbers of companies privatized, through public share offerings, in developed and developing countries. As summarized in Megginson and Netter (2001), these studies generate similar results. Weighted averages of the mean values from the studies show that: profitability, defined as net income divided by sales, increases from an average value of 8.6 percent before privatization to 12.6 percent thereafter. Efficiency, defined as real (inflation adjusted) sales per employee, increases from an average of 96.9 percent in the year of privatization to an average level of 123.3 percent in the post-privatization period; between 79 and 86 percent of firms see output-per-worker increases. Most of the studies also conclude that there were economically and statistically significant post-privatization increases in output (real sales), as well as significant decreases in leverage. Capital investment spending slightly increased, while employment changes are ambiguous (see section (iv) below for more on employment). The main factors accounting for the performance improvements are changes in the incentive and management structure coupled with improved corporate governance.

17. Sheshinski and Lopez-Calva's (1998) evaluation of the empirical evidence also supports the view that privatization has positive effects on enterprise profitability and efficiency. They found that: (i) privatized firms improve profitability after sale irrespective of market structure, though competitive firms show higher productivity increases compared to firms in more concentrated markets. In the latter, deregulation policies, which the authors relate to privatization programs, are shown to speed up the convergence process of firms to industry standards; and (ii) fully privatized firms perform better than partially privatized firms. In their older, seminal study, Boardman and Vining (1989) provide evidence to support the latter finding. Analyzing the performance of the 500 largest non-U.S. industrial firms in 1983, they show that state-owned and mixed ownership enterprises are significantly less profitable and productive than are privately owned firms. They conclude that mixed enterprises are no more profitable than SOEs, and suggest that full private control, not just partial ownership, is important for achieving performance improvements.

18. It can be argued that there are difficult methodological problems with cross-cutting studies of the above mentioned type that might lead them to be biased in favor of privatization. First, there is a problem of selection bias. Firms sold by public offering will be the "cream of the crop;" i.e., to meet stock exchange listing requirements they will have been profitable for some time, possess up to date and accurate accounts, and in general will be the largest and among the best performing firms sold in the privatization program. Thus there is the possibility that it is not privatization that causes performance improvements, but rather it is that the highest potential firms are privatized. In addition, because of data limitations, developed countries are over represented in the samples of such studies, leading to further possible selection bias. Second, there are data constraints as well that some argue influence the findings. Comparing accounting information across different countries and at different points in time can be difficult and fraught with problems. Most of the studies do not account for changes in the macroeconomic or business environment over the given time period, both of which influence the outcomes of privatization, and it could be argued that a rising economic tide lifted all firms, and not just the privatized ones. And third, using profitability as an indicator of improved performance is flawed as the private sector by definition is profit maximizing while profit is not likely to be a goal in the public sector.

19. Despite these drawbacks, these studies are the few that directly compare large samples of firms from a range of industries and countries over different time periods, and they consistently suggest that privatization does improve firm performance, not just in terms of profitability changes but also efficiency improvements. Moreover, some of the methodological drawbacks have been addressed in other studies. Boubakri and Cossett (1998), for example, analyzed the performance of 79 newly privatized firms in 21 developing countries that experienced full or partial privatization between 1980 and 1992. The sample was diversified, with wide geographical dispersion and different levels of country development, and firms of different size and in different industries and market structures. They too found significant increases in profitability (up on average by 124 percent after privatization), operating efficiency (real sales per employee up by 25 percent on average and net income per employee up by 63 percent), capital investment spending (up 126 percent), and employment (up 1.3 percent), and a decline in

leverage and an increase in dividends. The changes in both profitability and efficiency were larger for firms in middle-income countries than for those in low-income countries.

20. One of the biggest issues in evaluating privatization, both in the cross-cutting studies as well as the country studies discussed below, lies in comparing the outcome of privatization with the counterfactual, i.e. what would have happened in the absence of privatization. There is the possibility that performance improvements would have happened without a change of ownership—if general economic conditions improved and boosted all firms, or if public sector managers and owners were able to put in place and sustain reform measures. Omran (2001) argues that this was the case in Egypt. He reviewed indicators in privatized and remaining state-owned firms in the 1990s, and found that all firms improved, regardless of ownership type—concluding that general liberalization was more important than privatization in explaining firm behavior. But it could also be argued that previous liberalizing reforms without privatization had accomplished little in Egypt; and that only when privatization was a realistic option and credible threat did remaining SOE managers take seriously the calls for reform. Few studies evaluate the counterfactual in any systematic way, the most notable being that of Galal, Jones, Tandon, and Vogelsang (1994); this study is discussed in further detail in section (iii) below.

21. A final issue is one of timing, again applying to both cross-cutting and country/enterprise level studies. Dewenter and Malatesta (1997) and Hodge (2000), while supportive of the positive effects of privatization, argue that some of the performance improvements occur before privatization due to the "announcement" effect, rather than to privatization per se. True, many of the most difficult reforms have often been made in the run-up to privatization but in most of these cases the announcement was accompanied by: (i) a change of management; (ii) large layoffs and other cost-cutting measures; and (iii) other departures from previous inefficient procedures. And these measures were implemented with the clear threat of privatization. Moreover, the extent to which these improvements could have been sustained in the absence of eventual divestiture is highly questionable, and many have argued and there is evidence to show that privatization was necessary to "lock-in" the gains and prevent backsliding (World Bank, 1995).

Developing countries

22. Most (not all) of the growing body of work assessing the impact of privatization in developing countries shows that privatization has improved enterprise performance. For example, La Porta and Lopez-de-Silanes (1997), in a study of all 218 non-financial firms privatized in Mexico in the period 1983-1991, show that SOEs, in competitive and non-competitive sectors, went from being highly unprofitable before privatization to being profitable thereafter, closing the performance gap with control groups of similar firms in the private sector. Output (inflation adjusted) increased 54.3 percent, sales per employee roughly doubled, and profitability increased by 24 percent. Controlling for changes in the macro environment, they found that improvements were due mainly to productivity gains resulting from better incentives and management associated with private ownership, and partly to lower employment costs resulting from labor reductions.

23. In Brazil, privatization improved SOE efficiency and profitability (Macedo, 2000). Between 1981 and 1994, before the start of the privatization program, SOEs performed poorly. The ratio of profits to net assets during the period was, on average, a negative 2.5 percent, and fell to negative 5.4 percent towards the end. Significant gains were achieved after privatization; for example, the large steel mill (CSN) which had been incurring heavy losses became profitable and investments increased dramatically. Higher profits are bringing more tax revenues to government, and the company began paying dividends to shareholders. In another study, Pinheiro (1996) analyzed the performance of 50 Brazilian SOEs before and after privatization (using a methodology similar to the Megginson studies). He concluded that privatization significantly improves SOE performance, particularly when there is a change of control rather than when only a minority stake is sold. The results are also stronger for companies that have been recently sold, indicating that privatization works better when combined with liberalization measures, including removing barriers to entry and exit, imposing positive interest rates, and reducing access to budget resources (for more on this point, see section 4 (ii) below).

24. Most success stories come from high or middle income countries but privatization has yielded positive benefits in low-income countries faced with difficult market conditions and wary investors. Privatized companies in sub-Saharan Africa increased capacity utilization through new investments, introduced new technology, and expanded their markets (Campbell White and Bhatia, 1998). In Ghana, sales of privatized firms increased by 71 percent; in Tanzania, ten privatized firms made investments that were 2.5 times greater than 17 non-divested companies. A separate study of pre- and post-privatization performance of 16 African firms privatized through public share offering during 1989-96 finds a significant increase in capital spending by privatized firms—but only insignificant changes in profitability, efficiency, output and leverage (Boubakri and Cossett, 1999).

25. Some governments have in the past tried to raise revenues or obtain support by divesting minority stakes through share issues, to state-controlled financial institutions (in India), to workers (in Egypt), or to the public at large (Bangladesh banks). None resulted in major performance changes. In general, government retention of majority shares has not resulted in improved firm performance. The problem is minimal changes in the corporate governance of these firms. However, partial privatizations in Malaysia yielded positive results (Galal et al, 1994), largely because through commercialization managers were made more responsive to market pressures and because private shareholders forced government to shift towards more economically rational decisions. Majority or full sale of shares to strategic investors avoids the incentive and contracting problems associated with minority privatization. Such sales can and have been combined with share sales to employees and the general public in an effort to share the wealth and win popular support for privatization. This approach has worked well in a variety of settings, from Chile to Jamaica to Estonia.

26. To summarize, empirical evidence from non-transition economies suggests strongly that privatization has a beneficial impact on enterprise performance. While there are methodological issues involved in carrying out impact evaluations, there is by now sufficient and compelling evidence from a wide range of countries and sectors that privatization of enterprises in competitive markets leads to significant improvements in efficiency, profitability, output, and capital investment spending.

Transition economies

27. Assessing the impact of privatization on enterprise performance is particularly difficult in transition economies; the concurrent sweeping economic and social changes make it more difficult to separate privatization's effects from other factors. Further, information and analytical shortcomings are particularly acute in the transition economies, and especially those formerly part of the Soviet Union. Several recent assessments are beginning to overcome these difficulties. They generally show that privatization has yielded positive effects—though there is a marked difference between countries in Central and Eastern Europe (CEE), which includes the Baltic states, and those of the former Soviet Union (FSU) (the Baltic states excluded).

28. Djankov and Murrell (2000) have conducted the most comprehensive and rigorous review of 125 empirical studies of transition economies. Based on composite evidence that reflects the results of individual studies, they conclude that there is strong evidence that private ownership produces more restructuring (changes that prepare a firm to survive and thrive in a competitive market economy) than state ownership in just about every transition country. But sub-regional differences are acute: the privatization effect in CEE countries is more than twice the size of that in FSU countries.

29. One explanation for the varying regional results is the type of owners produced by different sales methods. CEE countries (such as Estonia, Hungary, and Poland) that privatized largely through trade sales on a case-by-case basis ended up with concentrated strategic owners, often foreigners, who have been found to be much more productive than diffused domestic owners. FSU countries relying principally on mass privatization through vouchers tended to have less positive results. Such methods led to a large amount of insider ownership by managers and employees, and/or widely diffused shareholding among small, first time equity holders. Yet, even in these cases, there is little evidence that privatization harmed firm performance, with the very important possible exception of one form of privatization in Russia, where firms privatized to workers appear to be doing even worse than SOEs (Box 2). In general, privatized companies run by insiders are least efficient, but even these do better than state-run companies, although commercialized enterprises with changed management and/or an independent board of directors perform somewhat better than SOEs. (Note that everywhere in transition the best performers of all are new private entrants; i.e., those setting up "greenfields" operations that were never in state hands.) Method of sale is not the whole of the story; another important part of the explanation for the varying regional results are differences in levels of institutional development and policy approaches with respect to new entry and hard budget constraints (see section 4 (ii) below).

30. Another survey of outcomes of privatization in transition was conducted by Havrylyshyn and McGettigan (1999). They dispute the notion that ownership change is not central for restructuring and improved firm performance, and that exposure of firms to competition and hard budget constraints is more important. Their key findings are: (i) private enterprises almost invariably outperform state enterprises; i.e. any privatization is better than none (note again the possible and important exception of one form of insider privatization in Russia to this finding), but the form of privatization matters as do pressures of competition and hard budget constraints;

and (ii) new private companies are the best performers, followed by newly privatized firms run by outsiders (local or foreign).

Box 2: Russian Privatization

In Russia, over 70 percent of enterprises became insider owned following voucher privatization in 1992-94. The hope and expectation was that these inside owners would open their firms to outsiders endowed with money and expertise. Newly formed investment funds were expected to assist in this process. But insiders proved reluctant to give up control, and outside investors were in any case highly wary in the deeply unsettled and often lawless circumstances. As a result, neither new investors nor Russian investment funds succeeded in changing and concentrating ownership in the secondary market. The upshot was limited restructuring. Subsequent and non-transparent cash sales of the larger enterprises in Russia—the notorious "loans-for-shares" program—assisted or actually created a "kleptocracy," meaning many high potential firms were transferred to a small group of investors at low prices (Black, Kraakman and Tarassova, 2000). Some analysts (Barberis, Boycko, Shleifer, and Tsukanova, 1996; Earle, 1998; Earle and Estrin, 1998) nonetheless conclude that privatization led to performance improvements in Russia, at least in firms where outsiders succeeded against odds in securing control, though they too acknowledge that many of these new owners did not pay anything near a reasonable price for the firms obtained; and the sales methods were non-transparent..

What can one say with certainty about the difficult and complex Russian case? It is clear that privatization, competition and hardening of budget constraints all improve efficiency in Russia. Increases in private share ownership raises real sales per employee, while subsidies reduce the pace of restructuring (Djankov, 1999a). Significant foreign ownership (greater than 30 percent), is positively related to restructuring. Managerial ownership is positively related to restructuring at low levels (less than 10 percent) and high levels of ownership. Had Russia been able to auction off transparently more of its high potential assets to core, preferably foreign investors, the economy would have been better off today, would probably have returned to positive growth earlier than it did, and might have avoided some of the acute pain suffered by large elements of the population. Whether or not that course of action was possible is hard to determine even in retrospect

Two questions ultimately arise: (i) did privatization lead to increased efficiency? and (ii) did it lead to increased equity and/or welfare? All observers agree that Russian methods of privatization dramatically increased inequity. But what was the reasonable alternative? Continued state ownership? One can make a case that the very corrupt and unfair "loans-for shares" privatizations in Russia eventually resulted in increased efficiency in the firms taken over. How so? The managers put in place by the "oligarchs" are showing themselves to be better managers than those provided previously by the state. The owners and managers of these firms have now become—after their initial and unjust acquisition of assets and some years of "wild east" behavior— more interested in profits and protecting the long-run health of the assets through orderly and legally regulated market behavior. Recent evidence suggests that almost all the firms privatized through loans for shares are now running profits and are much healthier than they were as SOEs. True, the present owners paid very little for these very high potential assets, meaning that the state—and the taxpayers—obtained very little in the transfer. Moreover, the experience soured the Russian public on reform, privatization, and the honesty and competence of both officials and the private sector in general.

The overall point is that Russian privatization should ideally have been better managed, and that the manner in which much of it was carried out entailed high social and political costs, the ramifications of which are still being worked out. Nonetheless, to conclude that Russia should not have privatized, that it should have retained a mass of firms in state hands while it tried to reform slowly and create an institutional setting more conducive to decent transactions, may well have been an unrealistic alternative, as evidenced by the poor and unsustainable records of Belarus and Uzbekistan—countries that tried the "go slow" approach.

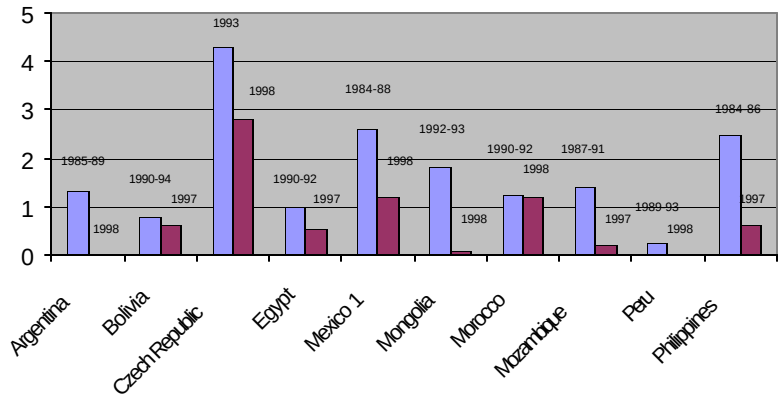
Source: Nellis, forthcoming

31. In the main, the economic and financial effects of privatization in transition have been positive. As elsewhere, private owners in transition are more efficient and effective than the state. There are some caveats to this conclusion, but on average, the finding is robust. One need only look at those transition countries that have delayed or avoided privatization (and other reform) to see the limits of the alternative approach. However, the vast scope and rapid pace of privatization in transition—much of it taking place in countries with ineffective public administrations, weak legal systems, and embryonic regulatory capacities, particularly concerning financial and capital markets—led to much corruption, injustice, asset-grabbing, insider trading, and defrauding of minority shareholders, particularly those who had obtained their shares in give-away, voucher schemes. This has proven costly socially and politically. In sum, the shift to private ownership was necessary, but it should ideally have been better managed.

(ii) Macroeconomic and fiscal effects

32. Recent work on the fiscal and macroeconomic effects of privatization (Davis, Ossowski, Richardson, and Barnett, 2000) indicates large, significant and positive benefits from privatization. Governments tend to be financially better off after privatization than before. Proceeds from privatization have been substantial, amounting to 2 percent of GDP in a sample of 18 countries reviewed. The fiscal situation tends to improve over time, as receipts of privatization are saved rather than spent.[5] Privatization produces positive impacts upon government revenue by means other than sales proceeds. Transfers decline substantially following privatization (Figure 3) and broader indicators of consolidated SOE accounts for some countries indicate a large decline in deficits.

Figure 3: Gross Budgetary Transfers and Subsidies to Public Enterprises for Selected Countries (in percent GDP)



[1] Excludes Petróleos Mexicanos. Includes some decentralized government agencies.

Source: Davis, Ossowski, Richardson and Barnett, 2000.

[5] Most of the countries covered in the study had an IMF program in place, and consequent limitations on the deficit may have influenced this finding.

33. In terms of growth, private firms are found to be more efficient than state enterprises, especially in competitive industries. A range of policy variables—fiscal discipline, price and trade liberalization, deregulation, privatization, clarification of property rights—are important for determining growth. Taken individually, they may have only a limited effect on growth, but together they are strongly associated with rapid expansion. The data for the developing and transition case study countries in the IMF study support these findings, showing a strong correlation between growth and privatization. While privatization alone is not the cause of the increases in growth rates in the study, it is likely that privatization serves as a proxy for the range of structural reform measures. The study also shows that privatization is viewed by investors and markets as the principal signal of reform credibility and seriousness, a less tangible but important macroeconomic effect.

34. Sheshinski and Lopez-Calva (1998) also find that privatization improves the public sector's financial health. Budget deficits decline during the reform period. Low-income countries which are less aggressive privatizers have a more significant deficit on average. In high-income and middle-income countries, privatization reduces the net transfers to SOEs, and the transfers become positive when the government starts collecting taxes from privatized firms—another contributor to positive macro effects. In most cases, the post-sale taxes are far more than the pre-sale dividends, if indeed any dividends were ever paid. Despite concerns about the difficulties of tax collection, there is evidence of increased downstream revenues to governments through higher taxes, in, for example Africa (Campbell White and Bhatia, 1988), Brazil (Macedo, 2000), Argentina (Shaikh, 1996), and Mexico (La Porta and Lopez-de-Silanes, 1997).

35. An important macroeconomic/fiscal issue in privatization is the use of proceeds. The more the net proceeds (that is, gross proceeds minus the costs of sales, which include financial clean-up, severance costs, advisory costs) are devoted to retiring debt, both domestic and foreign, the better, as it stimulates widespread economic benefits. If the proceeds are large and the amount of debt retired significant, this application helps lower interest rates, reduces borrowing and inflation, and boosts overall growth. Four countries covered in the IMF study—Argentina, Egypt, Hungary and Mexico—had an initial stock of registered public debt ranging from 40 percent to 130 percent of GDP. The use of privatization proceeds, along with other factors, led to a sharp decline in the debt between the year before the period of most active privatization and the last year of active privatization, and contributed to the strengthening and stabilization of the economy. The problem is that there are many other claimants to the proceeds, and governments are sometimes obliged to balance the economic ideal with the politically feasible. Many governments (Bolivia, Estonia, Hungary) have devoted a portion of the proceeds for covering pension costs (though they are a form of debt retirement since they are obligations of the state), or—a risky one—to the restructuring of some key SOEs prior to or even instead of privatization (Czech Republic). Experience cautions against the use of proceeds to finance current expenditures given the temporary and one-time nature of proceeds and the risk that spending may become entrenched at unsustainable levels.

(iii) Welfare consequences

36. Studies that examine the impact of privatization on enterprise performance contain limited, if any, discussion of the effects of the sale on actors other than owners, or those outside the firm, in particular consumers. Since most of the evidence indicates improved internal efficiency and higher returns to owners following privatization, there is an implicit assumption that the economic welfare of society in general has been made better off by the privatizations.

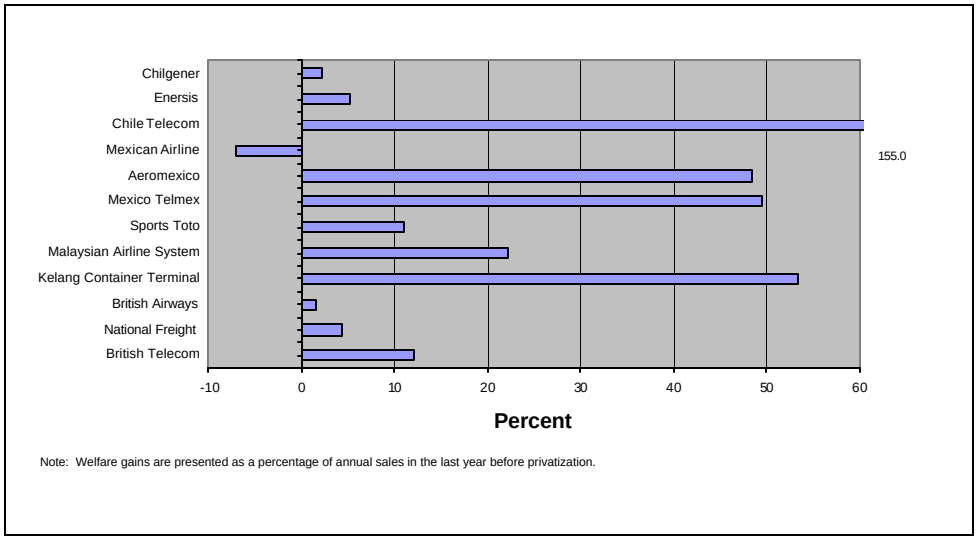
37. But the welfare improvements are implied only, and not proven, even in countries where numerous privatizations have consistently yielded better firm performance and increased benefits to the shareholders. It is possible for a transaction to benefit a firm and its owners while not affecting or, worse, decreasing the total amount of benefits available to all affected actors, and the society at large. The standard example is the privatization of an inefficient public sector monopoly to a private and unregulated owner. The result could and almost certainly would be increased firm profitability, higher returns to the new shareholders, even perhaps higher salaries for workers and expanded job opportunities, and greater returns to government. However, these gains could be outweighed by the "welfare losses" that might be imposed on consumers and the economy as a whole due to inadequate access or sub-optimal supply of products and services and/or their excessively high price. In such cases, the overall welfare consequences could be negative.

38. Determining the broader welfare gains and losses among all affected actors—consumers, government, buyers, workers, competitors—is a complex and exacting exercise, requiring the comparison not simply of what happened before and after the sale, but also the comparison of what happened after the sale to a "counterfactual" case—that is, an estimate of what would have happened had the firm stayed in state hands. This approach demands an enormous amount of information about firm performance before and after the privatization, requires highly skilled analysts, and is subject to considerable debate as to the realism of the counterfactual. It has thus successfully and rigorously been carried out in only a few cases, mostly, though not exclusively, involving infrastructure firms.

39. Most notable is the seminal study by Galal, Jones, Tandon, and Vogelsang (1994). Their study of the welfare consequences of privatization in 12 mostly infrastructure enterprises in four developed and middle-income countries provides evidence of privatization's effects on enterprise efficiency, on subsequent investment, and on consumer welfare. They examine the impact on all actors and compare performance before and after privatization, as well as the "after" performance to a hypothetical scenario of continued, and reformed, state ownership. Unlike many other analyses, they also isolate the effects of privatization from other broader economic and sectoral changes. They found that divestiture substantially improved economic welfare in 11 of the 12 cases (the exception being Aeromexico), mainly due to a dramatic increase in investment, improved productivity, more rational pricing policies, and, importantly, increased

competition and effective regulation (Figure 4).[6] Despite assuming that public managers would adopt new technology and more rational procedures they also concluded that privatized firm performance was superior to the alternative of continued state ownership.

Figure 4: Welfare Effects of Selling State-owned Enterprises



Source: Galal, Jones, Tandon and Vogelsang, 1994.

40. Perhaps due to the complexity of the approach, and the lack of reliable data and skilled analysts, there has been but a single application of the welfare methodology in low-income countries. One of the originators of the method, Jones, along with Jammal and Gokur (1998), applied it to 81 privatizations in Côte d'Ivoire, covering not just infrastructure firms but a range of firms already operating in competitive markets (in agriculture, agro-industries, tradable and non-tradable sectors). For the entire privatized sector, they concluded that there were substantial benefits: (i) the firms performed better after privatization; (ii) they performed better than they would have had they remained under public ownership; and (iii) the set of transactions as a whole contributed positively to economic welfare, with annual net welfare benefits equivalent to about 25 percent of pre-divestiture sales. These results stemmed from a number of effects, including increases in output, investment, labor productivity, and intermediate-input productivity.

41. All in all, the broader welfare consequences of privatization, and how "fair" a privatization transaction or program is perceived to be by the most affected segments or indeed the general population of a country, is critical to its acceptance and success. More studies of the welfare consequences type are needed.

[6] Aeromexico was sold to a buyer who made a number of unwise decisions, and lost a lot of money before the company was sold and eventually turned around. This illustrates the point that private managers make mistakes just as public ones do, but under private ownership losses are limited by bankruptcy and restructuring, whereas under public ownership such losses are tolerated indefinitely. This point is discussed in greater detail in Jones, Jammal and Gogkur, 1998.

(iv) Employment effects

42. State enterprises tend to be overstaffed, sometimes severely so as governments used them for purposes of employment generation and maintenance. Some examples: in Sri Lanka, average redundancy in eight of the largest firms (electricity, railways, shipping, sugar, cement and petroleum) was 53 per cent (Salih, 2000); state-owned Air Afrique has 4,200 employees and eight aircraft, while industry leader, and privately owned, Ryan Air maintains a staff of 1,400 for 21 planes; prior to privatization, Argentine railways employed over 90,000 people and had a wage bill equivalent to 160% of the firm's total revenues. Many similar examples could be given. These levels of overstaffing contributed to the financial weakness of SOEs. Excess labor is one of the first cost areas addressed either by reforming governments or new private owners. The saliency of the issue has led to widespread concern that privatization inevitably leads to unemployment and loss of benefits; this in turn has sparked opposition to privatization from trade unions, workers, and academics.

43. The view that privatization always leads to layoffs is unfounded. True, highly protected and deeply politicized enterprises have seen significant declines in net employment, usually before but also after privatization: 80, 72, and 50 percent respectively in Argentina's railways, petroleum, and electricity enterprises; 82 percent in Brazil railroads; 42 percent in Manila water; 50 percent in a study of Mexican firms. Moreover, while D'Souza and Megginson's 2000 study of 78 privatized firms in 25 countries found insignificant employment declines for the group as a whole, there were significant reductions in a sub-group of non-competitive firms. The bulk of these reductions occurred largely in the run up to privatization as governments prepared enterprises for sale; in a few cases they were accompanied by further reductions by the new owners/concessionaires. But much of this shedding was due to the need for restructuring irrespective of privatization and to general economic conditions rather than privatization per se (Box 3).

Box 3: Privatization and Employment in Côte d'Ivoire

Jones, Jamal and Gogkur (1998), in their study of Côte d'Ivoire, analyzed the effects of privatization on labor. They found that the privatized sector as a whole indeed shed labor prior to privatization. But it shed less than the economy as a whole, suggesting that layoffs were a response to weak economic conditions rather than to divestiture itself. In fact, they argue that privatization may have reduced labor shedding, possibly to minimize labor opposition to privatization. Moreover, the privatized sector maintained Ivorian employment unchanged through 1994, and in this regard did significantly better than enterprises as a whole. In privatized firms, total employment increased by an average of 3.9 percent per year after privatization while falling by 1.9 percent per year before privatization, which meant that the firms added an average of 741 jobs per year after privatization while shedding 456 jobs per year prior to it. The authors believe that it would have risen still more without privatization, because, as profitability returned after the recession, the public sector would have reverted to its previous habit of over-employment. Looking at employee compensation, real wages per worker and total employee compensation per worker grew at an annual rate of 8.5 percent and 6.8 percent respectively after privatization while falling in the years before; and there was wage convergence between the lowest paid and highest paid workers.

Source: Jones, Jamal, and Gogkur, 1998.

44. In contrast, competitive firms with relatively efficient pre-privatization staffing levels, as well as firms in high growth sectors such as telecommunications, have frequently experienced slight if any decline in employment. Often they have been sold with their labor force intact to private buyers who judged that they could employ all previously existing workers, or they were willing to take on surplus labor that they estimated could be absorbed by new investments and expansion. New investments and growth post-sale in fact increased employment in a good number of privatized firms (Galal, Jones, Tandon, and Vogelsang, 1994; Megginson, Nash, and van Randenborgh, 1994; Boubakri and Cosset, 1998; Kikeri, 1998). In a study of East European countries, the overall level of employment declined prior to and at privatization, but increased over time (Estrin and Svejnar, 1998). In a review of 17 privatizations, Van der Hoeven and Sziracki (1997) found job increases in four (averaging 23 percent) and no change in six; job losses occurred in seven cases (averaging a substantial 44 percent of the pre-sale workforce), though these involved highly overstaffed enterprises in protected sectors such as tobacco, water supply, and electricity.

45. Moreover, in many instances, and contrary to popular perception, those who retain their jobs in privatized firms receive higher wages, sometimes substantially so. In Brazil, employment reductions were sizable in large firms privatized in the 1990s (48 percent on average); but resulting productivity improvements from restructuring meant higher wages and performance-based incentives for workers who remain (Macedo, 2000). Similar evidence is also seen in Mexico (La Porta and Lopez-de-Silanes, 1997), Argentina (Ramamurti, 1997), and Malaysia (Galal et al, 1994).

46. Critical perceptions notwithstanding, privatization does not appear to be a main cause of perceived overall increases in unemployment and wage differentials. Data from Argentina, for example, suggests that privatization was not a major contributor to the rise in unemployment between 1993 and 1995, but the "Tequila Effect"—the interest rate shock—was (Chisari, Estache, Romero, 1999). In the early 1990s in Poland and Hungary, despite the slow pace of privatization, official unemployment grew rapidly, reaching 16.7 percent in Poland in 1993-94 (down to 9.6 percent in 1998), and 14.1 in Hungary—another cautious privatizer at the outset—in 1993 (down to 10.8 in 1996); lack of rapid and mass privatization thus did not prevent large unemployment increases (Nellis, 1999). Most persuasively, Behrman, Birdsall and Szekely (2000), in an econometric study of the impact of liberalizing economic reforms on wage differentials in Latin America, concluded that privatization was *negatively* correlated with such increases. That is, privatization per se did not contribute to the growing wage inequality seen in reforming Latin American economies. Rather, privatization actually was mitigating the "disequalizing effects" of liberalizing reform in the financial sector, the tax regime, and capital markets. (This paper also indicates that the largest relative job losses due to privatization are found in the middle management ranks, and not in the classic blue collar positions, a finding encountered in other regions.)

47. The overall point is that the success or failure of a privatization program cannot be measured simply on the basis of whether the post-sale employment levels in the affected firms match those of the pre-sale period. Much of the shedding is due to the need for restructuring irrespective of privatization and to general economic conditions. Privatization must also be viewed as part of an overall reform program that stimulates competition, growth and productivity

in the economy, including in parts of the economy that were never under state control and ownership. When properly carried out, privatization and the accompanying reforms lead to employment gains elsewhere in the economy as unproductive labor is released for more productive activities. This can and should far outweigh the losses suffered in the privatized firms. Continued government support for state enterprises and their employees benefits a small number of citizens and comes at the expense of society as a whole. Rapid privatization and a focus on creating productive jobs through the private sector—rather than on preserving jobs in less efficient areas—are important for securing economy wide growth.

(v) Wealth and income distribution

48. The question of privatization's effects on wealth and income distribution, a subject of intense public debate and many assertions and claims, is only recently receiving the concerted attention of analysts. Knowledge of this issue is evolving, and the initial findings are as follows.

49. First, studies (cited above) that have measured the welfare consequences conclude that privatization generally increases the total resources available in the economy. Second, the same studies conclude that while a few privatizations result in welfare gains for all the relevant and interested actors and stakeholders (sellers, buyers, consumers, workers and competitors), many produce gains for some and losses for others, depending on how the transaction is structured, and the level of institutional development and competence in the economy. For example, government sellers often underprice shares of SOEs in order to ensure that the sale proceeds swiftly and successfully, and that lower income first-time shareholders are not priced out of the market. This results in gains for the shareholders, new or otherwise, but often constitutes a loss for the seller—and the taxpayers. Third, the income distribution effects of the privatization of infrastructure firms have been shown to depend crucially on the fairness and capacity of the regulatory system put in place prior to or at the time of the transaction (Chisari, Estache, Romero, 1999).

50. The most salient aspects of the distribution issue are employment, access, price and ownership effects. The effects of privatization on employment, both in the privatized firms and in the economy at large, are discussed in section (iv) above. Regarding access, recent work in infrastructure (covered in detail in the separate background paper on infrastructure, see Gray 2001) points to a highly positive impact from privatization, as increased investment leads to expansion, and as sales contracts often require that this expansion be aimed at least partly at previously unfavored groups or regions. Prices, as noted, often rise following privatization to offset below cost tariffs, but the effects on distribution are often muted or skewed by regulatory frameworks aimed at protecting the less favored (for example, the Government of Chile subsidized telephone costs in rural regions). Determining whether the gains from access are more or less than the losses from price increases is a primary objective of current research (see for example, Torero and Pasco-Font, 2001).

51. Finally, despite innovations aimed at spreading equity holdings—such as voucher schemes in transition economies, "capitalization" in Bolivia, and the awarding or selling of shares to workers in privatized firms—there is a widespread perception, even among observers sympathetic to divestiture, that the effects of privatization on wealth and ownership may prove to

be negative in distribution terms, at least in the short run, in the sense that the upper income categories will gain far more in equity shares than those in the lower income deciles. However, almost no rigorous analysis of this question has yet been completed, and one must await the conclusion of some research efforts presently underway.[7]

4. FACTORS FOR SUCCESSFUL PRIVATIZATION

52. Privatization is neither a simple nor a uniform process. Starting points differ; countries have varying objectives, face a wide and shifting range of problems and obstacles, and thus need to adopt different strategies and tactics to achieve their privatization objectives. There is no universally applicable approach to privatization, and the attempt to apply a "one size fits all" approach has proven ineffective and counterproductive. Nonetheless, worldwide experience does provide some guidance on the factors critical to the success of privatization.

(i) Commitment and ownership

53. Privatization requires strong political commitment. Privatization is almost never painless. Most transactions produce winners as well as losers (though "win-win" situations occur frequently). Privatized firms sometimes fail and go out of business. Significant redundancies have been involved. And often, assets must be sold at less than book value which, though economically justified, leads to allegations of giveaways. The fact that the gains are usually diffused and in the longer-term while the costs are short-term and borne, or appear to be borne, by organized and vocal groups, such as labor, leads to an intense politicization of the issue. This requires careful handling from the political and administrative leadership to explain alternatives, build coalitions for change, and deal with the disaffected. All this in turn requires high-level decisions on to whom to sell assets, at what prices, under what terms and conditions, and with what arrangements to bring the general citizenry and the directly affected parties on board. As the experience of countries such as Argentina, Bolivia, the Czech Republic, Mexico and others shows, resolving these questions necessitates good technicians and dealmakers, fully backed by sustained and dedicated commitment from the top in tackling the numerous vested interests that threaten to slow or derail the process.

54. While necessary, top-level political commitment alone is not however sufficient either for privatization to take place, or for it to be successful. The building of widespread public understanding, if not active support, for this intensely political process among a larger group of stakeholders is also essential. In this regard, the availability of information is key. Many countries have found public information campaigns to be helpful, as they can explain: (i) the very large and usually hidden financial and economic costs of unreformed SOEs; (ii) the direct and indirect benefits of privatization; and (iii) address the principal fears and concerns of the citizenry regarding privatization. Such campaigns are particularly effective when combined with

[7] At least three research projects are presently underway to look at various aspects of the distribution effects of privatization: the first at the Inter-American Development Bank, focusing on Latin America; the second at the Center for Global Development in Washington D.C., looking at the question in a wide range of developing and transition economies; and the third at WIDER in the United Nations University. All expect to provide results in 2002.

mechanisms to ensure broad-based participation and mitigate political and social costs (e.g. procedures for transparency, labor programs, share ownership programs in firms being sold; see below). Explaining the objectives and strategy of the privatization program itself also helps create greater acceptance and ownership among key stakeholders.

55. The experience of countries such as Russia—where, at the outset, far too much was promised of privatization, making the subsequent disappointments even less tolerable—show that such campaigns are not always easy to implement and that successful efforts require a clear and well-thought out strategy, flexibility in implementation, sufficient attention to local conditions, and the importance of building-in genuine feedback mechanisms. Most important, the promises usually made in these campaigns—that good assets will be sold in an open, competitive, transparent manner—have to be kept. The key is to have a public information program, not just a public relations campaign.

(ii) Ownership and competition

56. After 20 years of privatization experience, there is still vigorous debate concerning the extent to which ownership matters. Economic theory is somewhat agnostic on the effects of ownership; it regards market structure and the degree to which a firm is subject to competition of equal or greater importance. In terms of empirical evidence, since privatization is normally one component in a larger set of liberalizing, competition-enhancing reforms, some think that it may be the increased exposure to competition that accounts for most of the positive changes seen in privatized firms.[8] Indeed, some cases indicate that competition is more important than ownership change in bringing about efficiency gains.[9]

57. At the same time, if competition and market restructuring are so efficacious on their own, the question is why they so rarely occur in the absence of ownership change. Indeed, the poor experience with SOE reform in the 1980s and before shows the difficulties and limited results of reforms short of ownership change. Despite concerted and varied efforts to introduce competitive and other reforms, SOEs proved stubbornly resistant to change.[10] This was not because the solutions to SOE problems were not known. Rather it was because of governments' inability or unwillingness to apply fully the needed package of reforms (e.g., expose SOEs to competition, require them to access private capital markets for investment funds, create a market for managers, etc.), or to leave the package in place for sufficient time to change incentives and behaviors. Even in cases where performance may have improved (China being a rare case, see Box 1), reforms did not endure and backsliding occurred, usually due to renewed political interference (World Bank, 1995; Majumdar, 1996; Shirley and Xu, 2000). In particular, governments could almost never bring themselves to allow insolvent and even bankrupt SOEs to

[8] Tandon (1995) argues: "...there are, of course, many cases where privatization appears to have 'resulted' in efficiency improvement; in most of these cases, however, the privatization appears to have been contemporaneous with deregulation or other types of competition-enhancing measures."

[9] In reviewing the liberalization and privatization of the British electricity sector, Newberry (1999) argues that "…competition rather than privatization improved performance…." He shows that in those parts of the sector that were privatized but not liberalized, or as liberalized as other parts of the system, the efficiency gains were considerably less.

[10] The range of reforms short of ownership change are summarized by Shirley, 1983 and in Nellis and Shirley, 1991.

fail and go out of business. Instead, soft budgets continued. Where direct transfers were reduced, they were often replaced by government guarantees and concessionary credits from the banking sector. Indirect support through deferment of tax payments, dividends, and custom duties was the norm. In the absence of exit options, there were few meaningful pressures and incentives on government officials, managers, and workers to reform.

58. Shirley and Walsh (2000) analyze and sum up the ownership debate based on a review of some 50 empirical studies covering a variety of countries and sectors (competitive and noncompetitive). They found greater ambiguity about ownership in theory than in the empirical literature, the latter being skeptical of SOEs as a tool to address market failures for the reasons outlined above. The majority of empirical studies conclude that privatized—and private—firms perform better than SOEs, a finding that is robust across all sectors and market structures. Better private performance is evident in both developed and developing countries; while a few studies show better public performance in developed countries in infrastructure sectors, in developing countries there are no studies where SOEs do better in any sector or market situation. Private firms do better in fully competitive markets. This advantage persists but is less pronounced in monopolistic markets where the evidence is less conclusive; however, no studies in developing countries find that public ownership does better in potentially competitive industries.

59. The difficulties of SOE reform and the substantial empirical evidence on privatization strongly supports the importance of ownership. Ownership change is needed to make competition effective. But competitive markets are also important if privatized—and private—firms are to perform well. Privatization realizes its full potential when competition is promoted. Competition means free entry and the freedom to fail. Privatization allows inefficient firms that cannot compete—and that would otherwise have been kept alive—to fail. Removing these barriers to exit also means removing barriers to entry. Private firms will not enter if inefficient firms are not allowed to fail and if there is no level playing field. Subsidizing such firms and keeping them in operation also makes it harder for private firms to access credit and to enter markets. The issue is thus not one of privatization vs. competition. Privatization and pro-competition policies are in fact complements that are mutually reinforcing.

60. Thus, alongside privatization of existing assets, removing entry barriers is key for the development of dynamic and competitive private sectors. In tradable sectors, this involves simplifying procedures and licenses required to start and register a business, eliminating import restrictions, and deregulating pricing. In infrastructure, maximum economic benefits are realized when privatization is combined with new entry, the break up of large entities, and price deregulation with development of regulatory frameworks. Galal et al (1994) show that, while ownership matters, competitive markets reinforce the benefits of private ownership. Divesting into competitive markets may reduce the revenues from sale, but efficiency, not revenues, should be the primary objective of privatization.

61. Removal of entry barriers is particularly important in transition economies where state enterprises dominated all markets and where legal and other restrictions on private participation and entry were powerful (Box 4). For example, in Poland, privatization of large SOEs initially proceeded slowly (though most small firms were quickly sold off). However, entry was permitted and vigorously encouraged, and harder budgets were imposed on most SOEs that

remained. Competition increased in all sectors of the economy, and asset stripping was minimized. Thus, when it was finally decided to privatize the larger enterprises, there was something left to sell, and market conditions were generally competitive—all of which led to positive outcomes. China's success is also in good part due to opening entry to domestic quasi-private enterprises and to foreign investors. In changing the public-private mix, privatization was for long less important than the emergence of new private businesses.

Box 4: Is Ownership Change Enough?

Sachs, Zinnes, and Eilat (2000) examine the empirical evidence across 24 transition economies and conclude that ownership alone is not enough to generate economic performance improvements. It is when ownership change is combined with institutional reforms—aimed at removal of barriers to entry and exit, improving prudential regulation and corporate governance, hardening budget constraints, and developing capital markets—that one sees large and enduring progress.

Maximum impact is produced when market competitiveness, hardened budget constraints, and improved regulatory frameworks coincide with privatization. The higher the level of institutional reforms, the more positive the economic performance impact from a change of ownership. In fact, the study finds a threshold level of reforms in order for privatization to have positive economic outcomes. At the same time, institutional reforms do not guarantee performance improvements unless there is a minimum level of ownership change. The authors insist that economies must have private ownership *and* pro-competition policies to progress; they go hand in hand with one another. While ownership matters, policies and institutions matter just as much.

Source: Sachs, Zinnes, and Eilat, 2000

62. Ultimately, competition means freedom to fail. As allowing closure and exit is clear evidence of mismanagement, governments the world over have proved reluctant to allow even obviously non-viable firms to fail. Instead, they continue to subsidize and support them, even when they are candidates for privatization. In some countries (Turkey's initial privatization efforts, for example), loss-making and unviable enterprises in the privatization portfolio continue to be subsidized and kept alive, leading to continued inefficiencies and financial drain. Funds that could be used to pay for items facilitating privatization, e.g. severance pay, are diverted to meeting current operational costs of firms on the sale bloc, such as salaries of workers and managers. This delays sales; and assets deteriorate further, reducing their value and making them even harder to sell. By contrast, effective exit mechanisms and hard budget constraints were another and important factor explaining the (eventual) success of privatization in Poland (Pinto, 1993).

63. Privatization has sometimes led to the liquidation or exit of nonviable firms. In a number of cases, purchasers have incorrectly estimated the market or their ability to restructure firms. Closures and liquidations have resulted, and private owners were able to do what public owners could not. Critics have seized on such cases (in places as different as Armenia and Guinea) to claim that privatization is a failure. But closures do not indicate that privatization was necessarily misguided, or that the policy failed. Had these firms been retained by the state it is a near certainty that they would have continued to receive a flow of non-productive and unsustainable subsidies, using scarce resources with high opportunity costs. Given the political difficulties associated with closure of SOEs, privatization is a key mechanism allowing the liberation and transfer of assets from problematic management in the public sector to better

management and more productive use in the private sector. While the closure of SOEs can be painful and costly (for the government, employees, creditors), it nonetheless produces benefits for the economy and society at large as employees and other assets are better used after restructuring.

64. Privatization can lead to poor outcomes when there is slow and halting progress on hard budget constraints from the financial sector. This problem is acute and most evident in transition economies, for example, in the Czech Republic, Slovakia and countries of the former Soviet Union, particularly in the mid-1990s. It is often argued that in these countries insider or diffused ownership resulting from the voucher method of privatization led to poor results, while transition economies such as Hungary and Poland that by contrast sold enterprises to concentrated owners did much better. Performance thus became linked to whether ownership was concentrated or diffused.

65. While there is indeed a close correlation between the use of voucher privatization methods and poor privatization outcomes (in the short term, at least), the underlying issue is that of the quality, pace and scope of financial sector reforms. Poor performance in the FSU countries and others such as the Czech Republic and Slovakia resulted partly because inadequate managers/owners were handed the assets, but mainly because financial sector reforms were lacking that would have forced even bad managers to take the right steps—or leave the way clear for other owners. The Czech Republic is an illustrative case in point: through the 1990s, the state dominated commercial banking, with a majority interest in half of the sector and essentially a controlling interest in all of it. Explicit and implicit pressure from government allowed bank borrowing by weak firms, led by sometimes corrupt firm managers, to continue at a rapid and unsustainable rate. Much of the debt proved to be non-performing, and a fair percentage was stolen (Cull, Matesova, and Shirley, 2001). The credit did not restructure the firms, weakened the commercial banks, and made the eventual bail-out one of the biggest ever in the region.

66. By contrast, Estonia, Hungary and Poland were far more successful in privatization precisely because they: (i) implemented their bank restructuring/privatization programs early in the transition; (ii) dealt with the bad debt problems faster than other countries; (iii) tackled difficult legal and institutional reforms, such as bankruptcy and protection of minority shareholders, before the others;[11] and (iv) received more inflows of FDI in the 1990s than the other countries. These factors, along with their favoring of core, concentrated owners, are what produced positive privatization outcomes.

67. In short, financial sector reform and the creation of a competitive and commercially oriented banking system is important for successful privatization. Privatization of banks is itself part of the solution. The recent World Bank research report on finance and growth (World Bank, 2001) shows that the lower the income of a country, the higher the proportion of its bank assets that will be state-owned. The argument is that state owned banks will better distribute capital to more productive investments, provide greater access to credit for deserving sections of society, and be less prone to crises. In practice, these objectives are almost never achieved. It has proven difficult to design incentives that will guide even private sector bankers towards efficient

[11] In Poland, where voucher privatization was limited, there was far more stringent initial regulation of securities and there have been many fewer reports of investor dissatisfaction.

resource allocation; when—as in state-owned banks—these incentives are weakened or absent, for political and other reasons, the results are far worse. Thus, although poorly regulated private banks have incurred large losses, some of the largest losses of recent times have been incurred by state banks. Evidence shows that state ownership tends to reduce competition through higher spreads on interest rates, leads to less stock exchange activity and non-bank credit, and results in greater concentration of credit allocation, usually to the largest 20 firms, often inefficient SOEs.

68. Persistent poor performance of state-owned banks has led governments to turn to privatization. The experience of countries such as Argentina, Chile, Mexico and others demonstrates the special case of bank privatization—and the need to phase and coordinate such efforts with the development of regulatory frameworks (Box 5).

Box 5: Privatization of Banks

Bank privatization has produced substantial savings and gains for a number of governments—though their experience generally reveals the complexity and difficulty of such reforms and reveals lessons on how it might be better conducted. Argentina reduced state ownership of banking assets from 50 percent in 1990 to half that by 2000, motivated mainly by the high costs of maintaining state ownership. The savings from privatizing the provincial banks are impressive, amounting to one-third of a typical province's public expenditure. Prior to privatization the banks had a high percentage of non-performing loans (50 percent in 1991), which were removed from the balance sheet as part of a clean-up prior to sale. Following divestiture, the share of non-performing loans then rose again, but this time to levels comparable with the better private banks in Argentina. Moreover, costs to revenue ratios and the terms of credit extended to SOEs by these newly privatized entities more closely reflected that of other, better-performing, private banks.

Banks are very special cases, in that their problems can broadly affect other firms and portions of the economy. In weak regulatory environments, poorly designed and implemented bank privatization have provoked crises (e.g. Chile in the late 1970s, and Mexico in the early 1990s). While these rapid and insufficiently thought-out privatizations were undesirable, extended state ownership can have an equally detrimental impact, as the Czech case, noted above, illustrates. The dilemma is that although hasty privatization in weak environments can lead to problems, excessive delays can undermine real sector reforms and lead to high costs.

Privatization of banks remains the preferred strategy, but it requires far more care, caution and preparation than for the normal commercial firm. The Argentine case, and that of Hungary, shows the need for sequencing the phasing out of state ownership over time with improvements in the regulatory environment. One mechanism aimed at maintaining value in the run-up to sale is to link manager compensation to the post privatization value of the bank (e.g. through stock options as happened in Poland). Involving reputable and experienced foreign owners is very often part of a successful strategy. They can bring the necessary skills, products and training to the host country and provide better allocation decisions.

Source: World Bank 2001

(iii) Transparency

69. Lack of transparency leads to allegations of corruption and provides ammunition to political and other opponents, creates backlash from investors and the public at large, and threatens to halt privatization and liberalizing reform in general. In Argentina, and Latin America

in general, a recent survey shows a substantial recent decline in support of privatization, mainly due to weak economic conditions but also as a result of the ways in which the process has been operating in practice and increases in corruption.[12] In Russia, the mass privatization program permitted insiders to engage in extensive "self-dealing", while the subsequent privatization "auctions" were a massive giveaway of the most important assets at bargain prices to a handful of well-connected oligarchs, who, in the absence of adequate legal and institutional arrangements, continued to act that way (Black, Kraakman, and Tarassova, 2000). As a result, the public came to oppose privatization, associating it with corruption and wealth for a chosen few.

70. Putting transparency into place requires a host of measures. Speed and full transfer of assets, without special privileges and concessions for insiders, is crucial, particularly in the case of competitive enterprises. Evidence from Mexico, Bulgaria, South Africa and elsewhere indicates that, once a firm is slated for privatization, delays in completing the transaction lead to a decline in operations, asset stripping, and a lower sales price.[13] Ultimately, few buyers may come forth and, rather than liquidating such firms which is the right technical approach but politically unpalatable, special deals may need to be negotiated, increasing the chances for intransparencies. On the other hand, selling firms, particularly infrastructure firms, in the absence of efforts to enhance competition and regulation, and thus enhance transparency and protection of consumers against the abuse of remaining monopoly power, can prove extremely costly. The general rule should be to move swiftly on the privatization of firms operating in competitive or potentially competitive markets, but get the market structure right in privatizing infrastructure firms.

71. An effective institutional framework is needed, though calling for it has proven easier than putting it into effect.[14] This involves creating some sort of focal point for privatization with minimal bureaucracy, direct access to and support of the highest political authorities, and adequate resources and flexibility to hire the many—and expensive—private resources needed to prepare and complete the sale. (Independent financial advisors and qualified experts play an important role in the process, particularly in carrying out independent, market-based asset valuations to ensure that prices are realistic, fair—and politically defensible.) Leaving privatization to sector ministries can work where there is a high degree of political commitment and adequate administrative capacity (for a time Bulgarian sector ministries privatized as well or better than the national Privatization Agency), but such conditions are typically lacking in most countries. Having a variety of sale points causes concerns about consistency and transparency, and raises the issue of how to find and reward the scarce resources required in one privatization agency, much less many.

72. Promoting competition in the transaction process itself is perhaps the most effective way to obtain transparency; as well, it yields the maximum economic and financial benefits. Clearly defined competitive bidding procedures for calling, evaluating, and awarding offers are important, including the public opening of bids (in Bolivia, this was done on national television).

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[12] The Economist, July 28-August 3, p. 38.

[13] In his study of Mexican SOEs, Lopez de Silanes (1997) found that net revenues for government dropped 24 percent for each additional year that privatization was delayed.

[14] The full range of institutional options and the tradeoffs involved are discussed in detail in Guislain, 1997.

In some cases, negotiated sales may be the only option, but in general, the greater the openness and competition in the selection process the greater the likelihood that transparency will be achieved—and the higher the price paid. In his study of Mexico, La Porta and Lopez-de-Silanes (1997) found that an additional bidder participating in a tender increases the net revenues to government by 12 percent. Public offerings or share issue privatizations are widely regarded as the most transparent and lucrative to the seller, but again, many client countries do not possess the capital markets, quality firms, or business environments to apply (very often) this method.

73. While there has been much concern about corruption in privatization, Kaufman and Siegelbaum (1996), in their work on transition economies, argue that although there has been an increase in corruption as privatization has progressed, it does not necessarily follow that privatization is the cause of that corruption. Different privatization approaches have affected the incidence of corruption, depending on the scope of control rights over economic activity retained by politicians and bureaucrats (Box 6). While privatization itself is a way to address corruption, the development of a legal and institutional framework is needed to limit the ability of insiders to self-deal.

Box 6. Privatization and Corruption in Transition Economies

Privatization—with all its inadequacies—is preferable to its absence. Kaufmann and Siegelbaum show that the incidence of corruption is, or would be, larger without privatization, and that corruption is more prevalent in non-privatized sectors. Furthermore, there is evidence to suggest that extralegal and unofficial activities are more prevalent in countries that privatized less. And there is incipient evidence pointing to a positive association between privatization and some hardening of the budget constraint (i.e. less discretionary handouts or tax exemptions), as well as between privatization and market liberalization (i.e. less discretionary licenses in the hands of politicians and bureaucrats). Finally, in some countries, corruption has been fueled by the lack of privatization in agriculture in parts of the energy sector. In these areas, the study advocates faster privatization.

Source: Kaufmann and Siegelbaum, 1997.

(iv) Mitigating the social impact of privatization

74. Where restructuring requires sizable labor force reductions, the process will always be contentious—but problems can be reduced if government, and sometimes the private buyers, dialogue with labor early in the process, and jointly work out an acceptable approach. Sometimes, this dialogue can go to extraordinary lengths. For example, in China, a Norwegian private firm entered into a joint venture with a Chinese SOE producing steel. The Norwegian investors worked closely with SOE officials and municipal authorities to determine not simply how many workers would be required in the remodeled firm, but also to ensure that the effects of layoffs were spread equitably among the workforce. Wherever possible, they made sure that when someone was dismissed, another family member was retained. Not surprisingly, the workers and the locality strongly supported this approach. In Morocco the purchaser of an SOE cement company agreed to retain all employees, even though there was an estimated 8 percent surplus. The new Managing Director indicated that he hoped that expanding business would soon make these extra people useful, and that even if business remained steady the firm would absorb the extra cost to maintain social peace and stay in good grace with the government. However, the

Director insisted that if demand declined greatly, the firm would renegotiate their deal with the seller.

75. The most common method to deal with workforce reductions is the provision of retirement and severance benefits to encourage voluntary departures and compensate for layoffs; governments generally greatly prefer the former to the latter (Box 7). Such programs appear quite costly in the short run. For example, Indian labor leaders are asking for five years severance pay for dismissed employees over 40 and with 20 years or more of service; and packages near this size have been awarded in Sri Lanka and Pakistan. But such programs are politically and socially acceptable, and the financial and economic returns can be high; in recent World Bank projects that financed severance, the returns ranged from 22 to 44 percent in countries as diverse as Brazil, Croatia, India, Mozambique, Tunisia, and Togo. Yet, care must be taken to avoid overly generous packages that result in unsustainable costs, lead to problems of adverse selection, and, in the case of early retirement payments, create undue burden on the social security system (Kikeri, 1998; Rama, 1999). Selling or awarding shares to employees (and sometimes retirees) in the newly privatized firm is another way of compensating workers and allowing them to share in the gains of privatization.

Box 7: Dealing with Labor Redundancies in Brazil Railways

Addressing overstaffing was a critical issue in the privatization of Brazil Railways. The government started labor restructuring prior to privatization in order to attract investors and mitigate the social impact. Nearly 40 percent of the original workforce of 42,000 left on a first-come first-served basis through a combination of early retirement and voluntary and involuntary separations. Close to 12,000 employees opted for early retirement, while about 6,000 chose voluntary separation. The number of early retirees was much higher than the estimated number of 5,000. During the program, social security reform was passed which implied that entitlement to retirement would no longer be based on the number of years worked but on age mostly, providing an incentive for the average worker with 18 years of experience who would otherwise have stayed on to retire. Involuntary separation, based on performance, was applied to 400 employees at 80 percent of the voluntary separation package. On average, the financial package equaled 22 months of salary as compared to the legal requirement of 10 months. The total retrenchment cost, financed by the government and international institutions, amounted to US$365 million as of February 1998, with a 40 percent economic rate of return. The concessionaires subsequently retrenched an additional 17,000 people through involuntary separation of which 70 percent were retrenched within one year of operation. The concessionaires were required for a period of one year after they assumed operations to pay the same financial packages as paid by the government. By May 2000 more than 80% of the initial work force had been retrenched since the start of the privatization.

In addition to severance packages, retraining support and outplacement services were provided. Actual participation in training and outplacement programs was significantly lower than initial estimates. The low attendance was mainly caused by delays in finalizing implementation arrangements with the various service providers. The cost of training and outplacement was approximately US$12 million.

Source: Estache, Sydenstricker, and Schmitt de Azevedo, October 2000.

76. Compensation packages have often been combined with retraining to help workers reintegrate into the labor market. While popular with governments and donors alike, evaluations question their cost effectiveness. Targeted, demand-driven support on a pilot basis with competition and performance-based arrangements for service delivery have a better chance of succeeding, while counseling and job search assistance are found to be more cost effective.

Contracting arrangements are another option; in Argentina, 5000 surplus YPF workers started 200 private businesses providing YPF with various contract services; this approach has been tried in Egypt and Algeria as well. In an electronics SOE in Alexandria, carpentry and maintenance services were contracted out, with those previously employed in these tasks given, free, the tool and workspace to do the job as private suppliers. They were also given, without bidding, one or two year contracts to provide the service, before the contracts would be re-bid competitively. This gave the former workers a chance to learn the business and compete with more experienced bidders.

77. In countries with rapidly growing economies and a well-developed private sector, measures such as severance pay and employee share ownership schemes might be all that are needed. By contrast, in low-income and transition economies where state enterprises dominate the labor market and where alternative employment is hard to find, the key is to improve the overall investment climate, including labor market reforms, so as to generate growth and private sector job creation, thereby facilitating the needed adjustments and the movement of redundant workers to other jobs.

(v) Environmental implications

78. Wasteful resource use and the poor financial situation of SOEs has meant higher abatement costs, less investment in both modern technology and pollution control, and higher pollution intensity. Recent research indicates that SOEs pollute more than private firms (Wang and Wheeler, 1996; Dasgupta, Huq, and Wheeler, 1997). A four-country survey of pulp mills in Thailand, Bangladesh, India, and Indonesia shows that state-owned plants make far less effort to abate pollution than their private counterparts (Hartman, Huq, and Wheeler, 1997).

79. Efforts to improve the environmental performance of state enterprises have been made, but, as in most other SOE reforms, back-sliding is common. Cash-strapped SOEs keep using older and dirtier equipment. Moreover, SOEs escape environmental regulation and enforcement to a greater extent than private firms. For example, in Indonesia's Program for Pollution Control, Evaluation and Rating (PROPER) program, SOEs were more compliant than private firms when the program began, but after 18 months the record of the two types of enterprises did not differ significantly. As SOEs are less susceptible to outside pressure, public information exerts less influence on their behavior. State-owned enterprises can thus be expected to lag behind other firms participating in PROPER in the coming years (Hartman, Huq, and Wheeler, 1997).

80. Recent research shows that privatization offers an opportunity for environmental improvements (Box 8). Private firms tend to invest in new technology to improve efficiency, comply with regulations, and respond to pressures from various stakeholder groups. To realize the full environmental benefits of privatization, governments need to incorporate environmental considerations into privatization transactions and develop policy and regulatory systems that ensure compliance and continued improvements (Lovei, 1999). Concerns about subsequent delays in the privatization process must be weighed against the fact that such efforts clarify the risks and potential future costs and treatment of any liabilities, particularly in sectors such as mining, chemicals, and petroleum refining. Privatization and environmental agencies generally lack experience in this regard. As much as possible, the work should be outsourced to consultants and mechanisms for including regulatory authorities established.

Box 8: Improved Environmental Performance in Mexico

Altos Hornos de Mexico (EHMSA), an integrated steel mill, was sold to a consortium of international and domestic investors in 1991. The Mexican government had expected a higher sale price if environmental requirements were clearly expressed at the time of the sale. Therefore, an environmental audit was carried out, and its results were used to agree on a three-year environmental compliance plan. Between 1991 and 1995 the company decreased its dust emissions by more than 70 percent and total water discharges by more than 60 percent, reduced the amount of solid waste generated per unit of production, and introduced programs to improve the surrounding environment. The improvements came from process changes and upgrades, environmental investments, and changes in plant management.

Source: Lovei, 1999

Annex A: Studies on Privatization

Authors	Methodology	Main Findings
A. General		
Barnett, Steven. 2000. "Evidence on the Fiscal and Macroeconomic Impact of Privatization." *IMF Working Paper WP/00/130*. Washington D.C.: International Monetary Fund. http://www.imf.org/external/pubs/ft/wp/2000/wp00130.pdf	The study investigates the impact of privatization on fiscal and macroeconomic performance.	Privatization proceeds transferred to the budget are largely used to reduce domestic financing, with little evidence that they are used to finance a larger deficit. The privatization process is strongly correlated with an improvement in macroeconomic performance in the form of higher real GDP growth and lower unemployment rates. The estimates suggest that a one percent of GDP privatization corresponds to 0.5 percentage point increase in contemporaneous real GDP growth and a further 0.4 percentage point increase in the following year. The point estimates also suggest that a one percent of GDP privatization is associated with a decline in the unemployment rate of just less than ¼ of a percentage point in the year of privatization and a further ½ percentage point in the following year, resulting in a total impact of around ¾ of a percentage point.
Boardman, Anthony E., and Aidan R. Vining. 1989. "Ownership and Performance in Competitive Environments: A Comparison of the Performance of Private, Mixed, and State-Owned Enterprises." *Journal of Law and Economics.* 32: 1-33.	Contains a comparison of the performance of the 500 largest non-US industrial firms in 1983. Results are compared for private corporations, mixed enterprises and state-owned enterprises. The comparison is on the basis of four measures of profitability: return on equity, return on assets, return on sales and net income. Also includes two measures of X-efficiency: sales per employee and sales per asset.	The authors find that state-owned and mixed ownership firms are significantly less profitable and productive than privately-owned companies. To gain efficiency full privatization is needed because mixed ownerships firms are no more profitable than those owned wholly by the state.
Boubakri, Narjess, and Jean-Claude Cosset. 1998. "The Financial and Operating Performance of Newly Privatized Firms: Evidence From Developing Countries." *Journal of Finance*. 53: 1081-1110.	The study examines post-privatization financial and operating performance of 79 companies in 21 developing countries and 32 industries between 1980-1992.	The study concludes that there are economically and statistically significant post-privatization increases in output (real sales), operating efficiency, profitability, capital investment spending, dividend payments, and employment as well as significant decreases in leverage. About 60 percent of sample firms showed an increase in employment of 5-10 percent after privatization. Real sales per employee increased by 27 percent. Unadjusted net income per employee increased on average by 63 percent.
Davis, Jeffrey, Rolando Ossowski, Thomas Richardson and Steven Barnett. 2000. "Fiscal and Macroeconomic Aspects of Privatization." *IMF Occasional Paper No. 194.* Washington D.C.: International Monetary Fund.	This paper separates the possible fiscal and other macroeconomic impacts of privatization.	The study finds that receipts of privatization are saved rather than spent. Over time the fiscal situation is improved by privatization with positive impacts upon revenue and for some countries a large decline in deficits. In terms of growth private firms are found to be more efficient than those run by the state, especially in competitive industries. The strong correlation that exists between growth and privatization may be because privatization is a proxy for the more general factor of 'favorable regime change'. The authors also find that unemployment falls after privatization, but that it may have detrimental impacts on particular groups of workers. Overall the positive effects of privatization on growth and employment hold for all countries examined, although to a lesser extent in transition economies.

Authors	Methodology	Main Findings
Dewenter, Kathryn, and Paul H. Malatesta. 1997. "Public Offerings of State-Owned and Privately-Owned Enterprises: An International Comparison." *Journal of Finance.* 52: 1659-1679.	Uses data from 8 countries (Canada, France, Hungary, Japan, Malaysia, Poland, Thailand and UK) to compare initial returns for 109 companies with national average returns. Also tests whether PIPOs are more or less under priced than private sector IPOs.	Results vary according to country: the UK shows significantly higher initial returns on PIPOs than private sector IPOs, while Canada and Malaysia point to the opposite case. Also PIPOs in unregulated industries tend to be less than those for regulated industries. There is therefore no evidence that governments systematically underprice PIPOs. Relatively primitive capital markets (in this case Hungary, Malaysia, Poland and Thailand) leads to a tendency for higher initial returns than offers in countries with more developed capital markets. The authors suggest that this is due to an increased uncertainty that about the value of privatization offers leading to lower offer prices. Another suggestion is that those countries with relatively primitive capital markets may try to broaden private share ownership by decreasing the initial offer price.
Dewenter, Kathryn, and Paul H. Malatesta. Forthcoming. "State-Owned and Privately-Owned Firms: An Empirical Analysis of Profitability, Leverage, and Labour Intensity." *American Economic Review.*	This study tests whether profitability, labor intensity and debt levels of SOEs varies from that of privately owned firms. The authors use a sample of the 500 largest non-US firms in 1975, 1985 and 1995.	After taking into account the effect of business cycles it is found that private firms are significantly more profitable than SOEs, and have lower levels of debt and less labor intensive production.
D'Souza, Juliet, and William L. Megginson. 1999. "The Financial and Operating Performance of Newly Privatized Firms in the 1990s." *Journal of Finance.* 54: 1397.	The paper documents offering terms, method of sale, and ownership structure resulting from privatization of 78 companies (mostly from telecommunications and other regulated industries) from 10 developing and 15 developed countries over the period 1990-1994.	The study compares three-year average post-privatization financial and operating performance ratios to the three-year pre-privatization values for a sub-sample of 26 firms. It concludes that there were economically and statistically significant post-privatization increases in output (real sales), operating efficiency, and profitability, as well as significant decreases in leverage. Capital investment spending slightly increased, while employment declined significantly.
D'Souza, Juliet, Robert Nash, and William L. Megginson. 2000. "Determinants of Performance Improvement in Newly-Privatized Firms: Does Restructuring and Corporate Governance Matter?" Working Paper. Norman, OK: University of Oklahoma. Http://faculty-staff.ou.edu/M/William.L.Megginson-1/prvsources.pdf	Using a sample of 118 firms (from 29 countries and 28 industries) that were privatized through public chare offering between 1961 and 1995 the authors look at operating performance of the enterprises.	They find that there are significant increases in profitability, efficiency, output, and capital expenditure, while leverage also decreases significantly. Looking at the determinants of these improvements they find that stronger profitability gains come from firms with lower employee ownership and higher state ownership. Output gains are stronger in competitive markets and where the economy is growing faster and efficiency gains are higher when foreign ownership is high.
Galal, Ahmed, Leroy Jones, Pankaj Tandoon, and Ingo Vogelsang. 1994. *Welfare Consequences of Selling Public Enterprises: An Empirical Analysis.* Washington D.C.: World Bank.	The study measures the effects of divestiture by comparing actual post-privatization performance of 12 large firms (in aviation, energy, telecommunications, transportation and shipping) in Chile, Malaysia, Mexico, and U.K. with their performance prior to divestiture.	The authors find that divestiture substantially improved economic welfare in 11 of the 12 cases. The gains were mainly due to a dramatic increase in investment, improved productivity, more rational pricing policies, and increased competition and effective regulation. Despite assuring that public managers would adopt new technology and more rational procedures they also concluded that privatized firm performance was superior to the alternative of state ownership.
Jones, Steven L., William L. Megginson, Robert C. Nash, and Jeffry M. Netter. 1999. "Share Issue Privatizations as Financial Means to Political and Economic Ends."	The study focuses on how political and economic factors influence initial returns of SIPs using a sample of 630 SIPs from 59 countries between 1977-1997.	The mean level of initial returns are found to be 34.1 percent for SIPs and 9.4 percent for seasoned SIPS. The authors do not compare SIPs with private sector IPOs because of their belief that any underpricing is caused by different factors (political considerations

Authors	Methodology	Main Findings
Journal of Financial Economics. 53: 217-253.		and asymmetric information respectively) and therefore does not lead to any meaningful insights. The study also finds that initial returns on SIPs are: (i) positively related to the fraction of the SOE on offer, (ii) positively related to the income inequality in the country, and (iii) not inversely related to the market value of the former SOE.
Megginson, William, Robert Nash, and Matthias van Randenborgh. 1994. "The Financial and Operating Performance of Newly Privatized Firms: An International Empirical Analysis." *Journal of Finance*. 49: 403-452.	Compares both pre and post-privatization 3-year average performance ratios for 61 firms in 18 countries over the period 1961-1989.	Significant increases in output, operating efficiency, profitability, capital investment spending and dividend payments are found along with significant decreases in leverage. The changes in employment after privatization are found to be insignificant.
Megginson, William, Robert Nash, Jeffry Netter, and Adam Schwartz. 2000. "The Long Term Return to Investors in Share Issue Privatizations." *Financial Management*. 29: 67-77.	Over the period 1981-1997 this study examines the performance of 158 PIPOs form 33 countries. The authors compute 1, 3 and 5-year returns in both local currency and US dollars and compare results to international and national indices as well as matching firm types.	First year mean holding-period returns for the SIPs are found to be 25.1 percent, which compares favorably to the mean local currency home market returns (13.2%), FT world Index (13.1%) and S&P 500 Index (17.6%). The HPR for industry matching firms is also less than that for the SIPs (15%). This result is statistically significant for all of the indices used. Similar results are found after 3 and 5 years, with excess returns exceeding 80 percent for most indices.
Megginson, William L., and Jeffrey M. Netter. 2001. "From State to Market: A Survey of Empirical Studies of Privatization." *Mimeo*. Forthcoming in Journal of Economic Literature. http://www.aei.brookings.org/pulications/related/privatization.pdf	The paper surveys the rapidly growing literature on privatization, attempts to frame and answer the key questions this stream of research has addressed, and then describes some of its lessons on the promise and perils of state-owned assets.	The paper identifies the following main lessons from the literature on privatization: The privatization programs of the last 20 years have reduced the role of SOEs in the economic life of most countries. Most of this reduction in developing countries has taken place only in the 1990s. The SOE share of "global GDP" has declined from more than 10 percent in 1979 to less than 6 percent today. Privately owned firms are more efficient and more profitable than comparable state-owned firms. There is limited empirical evidence, especially from China, that suggests that non-privatizing reform measures - such as price deregulation, market liberalization, and increased use of incentives - can improve the efficiency of SOEs, but it also seems likely that these reforms would be even more effective if coupled with privatization.
Nellis, John. 1994. "Is Privatization Necessary?" *Public Policy for the Private Sector Note 17*. Washington D.C.: World Bank.	In this study the author argues that privatization is necessary. He argues that there are several reasons why private firms perform better than SOEs. There is a market for managers that leads to higher quality management; capital markets subject private firms to greater scrutiny; they are much more subject to exit than SOEs; politicians interfere less with their running; and private firms are owned by self-interested shareholders rather than "disinterested bureaucrats".	There are a number of reforms that could help to combat these problems that do not involve changing the ownership of the firm, and there is some empirical evidence to suggest that they can be successful. However the author argues that ownership is still the best way to improve performance. While it is seen that there may be some overlap in the performance of private firms and SOEs, in general private firms outperform SOEs. Empirical evidence also back this up with the majority of pre and post-privatization studies showing significant improvements in various factors after privatization. Lastly, the author argues that partial reforms implemented by governments often amount to no more than a compromise and that they are often prone to reversing policy decisions or relaxing them. This is something that can be avoided if privatization is conducted.

Authors	Methodology	Main Findings
Sheshinski, Eytan and Luis Felipe Lopez-Calva. 1999. "Privatization and its Benefits: Theory and Evidence." *Development Discussion Paper 698.* Cambridge, MA:Harvard Institute for International Development. http://www.hiid.harvard.edu/projects/caer/papers/paper35.pdf	The paper reviews the micro and macroeconomic effects of privatization based on a survey of the empirical literature.	The evidence shows that privatized firms improve their profitability after the sale, even controlling for macroeconomic and industry specific factors. This result holds for different market structures. Deregulation policies speed up the convergence process of firms to industry standards. Partial privatization has a lower effect on profitability when compared with full privatization. Microeconomic evidence confirms that the introduction of competition enhances productivity gains. Firms in more concentrated and regulated markets, though they also go through an important restructuring after the sale, show lower increases in productivity as compared to those that are under market discipline. Eliminating restrictions to foreign direct investment and trade barriers, and government controls on prices and quantities fuels the catch-up of firms to competitive standards. The budget deficit shows a positive trend, i.e., it declines during the reform period.
Shirley, Mary, and Patrick Walsh. 2000. "Public vs. Private Ownership: The Current State of the Debate." *World Bank Policy Research Working Paper 2420*. Washington, D.C.: World Bank. http://econ.worldbank.org/files/1175wps2420.pdf	The paper reviews the debate over state ownership by searching theoretical and empirical studies for answers to the following questions: (i) Does competition matter more than ownership? (ii) Are SOEs more subject to welfare reducing interventions by government than private firms? (iii) Do SOEs suffer more from corporate governance problems than private firms?	Theoretical studies are ambiguous about the effects of ownership. Empirical literature, however, suggests that while market structure has a positive impact on performance, this impact fails to dominate the ownership effect. The arguments that market-structure dominates rests on cases in which public and private firms in competitive environments perform equally well, and these cases are rare. Both the theoretical and empirical literature are ambiguous about the effects of ownership in monopoly markets. Theories that assume a welfare maximizing government suggest that SOEs can correct market failures, but public choice theories are skeptical of these type government models. Corporate governance theories suggest that even well intentioned governments may not be able to assure that SOE managers do their bidding. The empirical literature favors the latter view of SOEs. In studies of industrialized countries, where we might expect more developed political markets to motivate greater government concern with welfare maximization or better information and incentives to overcome corporate governance problems, private firms still have an advantage. Theoretical critiques of privatization suggest that distorted objectives, market failures and poor institutions will lead to costly failures. Some of these studies suffer from the absence of a realistic SOE counterfactual or are extrapolating from a few, prominent cases, such as Russia. The 21 empirical studies cited in this paper suggest that most firms do better and all firms at least as well after privatization. None of the studies find that performance would be better had they not been privatized.
B. Developing Countries		
Bernal, Richard L., and Winsome J. Leslie. 1999. "Privatization in the English-Speaking Caribbean: An Assessment." *CSIS Policy Papers on the Americas*. X(7). http://www.csis.org/americas/pubs/ppPrivAssessment.pdf	This study analyzes privatization initiatives in the English-speaking Caribbean. It examines the various modalities which countries have utilized for private sector involvement in the state sector and examines the impact on employment, economic efficiency, and the availability of goods and services	Overall, privatization has had positive effects in the Caribbean. There have been net gains in terms of employment. Initial divestment of agricultural lands in Jamaica, for example, resulted in employment increases of 150 percent. As a result, the trade unions have been generally supportive of the government's efforts.

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	the availability of goods and services.	Efficiency and company performance have improved. In the hotel sector in Jamaica, for example, occupancy levels in privatized hotels are now over 85 percent, as a result of aggressive marketing strategies, tighter management, and physical refurbishing. Privatization has contributed significantly to the reduction in fiscal deficits, not only because of the initial injection of funds after sale, but also due to the elimination of government financing for unprofitable enterprises. Privatization has also brought foreign exchange from foreign as well as local investors.
Boubakri, Narjess, and Jean-Claude Cosset. 1998. "The Financial and Operating Performance of Newly Privatized Firms: Evidence From Developing Countries." *Journal of Finance*. 53: 1081-1110.	The study compares three-year average post-privatization financial and operating performance ratios to the three-year pre-privatization values for 79 companies from 21 developing countries and 32 industries over the period 1980-1992.	The study concludes that there are economically and statistically significant post-privatization increases in output (real sales), operating efficiency, profitability, capital investment spending, dividend payments, and employment as well as significant decreases in leverage.
Boubakri, Narjess, and Jean-Claude Cosset. 1999. "Does Privatization Meet the Expectations? Evidence From African Countries." Working Paper. Montreal: Ecole des HEC.	The study examines pre- versus post-privatization performance of 16 African firms privatized through public share offering during the period 1989-1996.	It finds a significant increase in capital spending by privatized firms, but only insignificant changes in profitability, efficiency, output and leverage.
Jones, Leroy, Yahya Jammal, and Nilgun Gokur. 1999. "Impact of Privatization in Côte D'Ivoire." *Mimeo*. Boston Institute for Developing Economies.	The study covers the welfare consequences of 81 privatizations in Côte d'Ivoire, covering not just infrastructure firms but a range of firms already operating in competitive markets (in agriculture, agro-industries, tradable and non-tradable sectors).	For the entire privatized sector, they concluded that there were substantial benefits: (i) the firms performed better after privatization; (ii) they performed better than they would have had they remained under public ownership; and (iii) the set of transactions as a whole contributed positively to economic welfare, with annual net welfare benefits equivalent to about 25 percent of pre-divestiture sales. These results stemmed from a number of effects, including increases in output, investment, labor productivity, and intermediate-input productivity.
La Porta, Rafael, and Florencio Lopez-de-Silanes. 1997. "The Benefits of Privatization: Evidence from Mexico." *NBER Working Paper 6215*. Cambridge, MA: National Bureau of Economic Research. http://papers.nber.org/papers/W6215.pdf	Criticisms of privatization have centered around the possibility that the observed higher profitability of privatized companies comes at the expense of the rest of society. In this paper, the authors focus on two of the most likely channels for social losses: a) increased prices as firms capitalize on the market power; and b) layoffs and lower wages as firms seek to roll back generous labor contracts. This study uses data for all 218 non-financial privatizations that took place in Mexico between 1983 and 1991.	The authors find that privatized firms quickly bridge the pre-privatization performance gap with industry-matched control groups. For example, privatization is followed by a 24 percentage point increase in the ratio of operating income to sales. Those gains in profitability are roughly decomposed as follows: 10 percent of the increase is due to higher product prices; 33 percent of the increase represents a transfer from laid-off workers; and productivity gains account for the residual 57 percent. Transfers from society to the firm are partially offset by taxes which absorb slightly over half the gains in operating income. Finally, they also find evidence indicating that deregulation is associated with faster convergence to industry benchmarks.
Macedo, Robert. 2000. "Privatization and the Distribution of Assets and Income in Brazil." Working Paper. Carnegie Endowment for International Peace.	This paper focuses on the Brazilian privation program undertaken in the 1990s.	The paper concludes that privatization contributed to softening both the fiscal and the external constraints, by allowing an enlarged public debt and aggravating foreign imbalances. Because of macroeconomic mismanagement, the objectives of reducing the public debt was not achieved. In spite of the size of the program, the government ended up with increased liabilities. With respect to income distribution, the paper concludes that it was also aggravated, since the poorest groups did not have access to the assets and the gains of privatization,

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		and will in the end share in the payment of an increased public debt and of a larger interest bill. The better off, on the contrary, reaped the benefits of privatization, and of the larger interest rates practiced by the government. Some correction of these distortions might occur depending on how the government spends the higher tax receipts it is collecting from the former SOEs, as they become more efficient and profitable, a performance also supported by the evidence presented in the paper.
Majumdar, Sumit K. 1996. "Assessing Comparative Efficiency of the State-Owned, Mixed, and Private Sectors in Indian Industry." *Public Choice*. 96: 1-24.	The study looks into the performance of Indian SOEs, mixed ownership enterprises and private firms during 1973-1989.	Industry-level survey data reveals efficiency scores averaging 0.975 for privately-owned firms, which is significantly higher than both mixed ownership firms (0.912) and SOEs (0.638). Any state sector improvement is caused by concerted "efficiency drives," but quickly declines afterwards.
Shirley, Mary M. 1998. "Why Performance Contracts for State-Owned Enterprises Haven't Worked." *Public Policy for the Private Sector Note 150*. Washington D.C.: The World Bank. http://www.worldbank.org/html/fpd/notes/150/150shirl.pdf	A study of performance contracts, looking at 12 enterprises in 6 developing countries	This study shows that only a few cases actually improved performance (in terms of labor productivity and total factor productivity) after signing performance contracts. On the whole performance was unchanged, with a few enterprises actually showing declining performance. The contracts are found to have many flaws in that they assign soft or inappropriate measures of economic performance (e.g. output – which takes no account for productivity and can therefore lead to inefficiency in achieving the goal). To combat these problems contracts must reduce the information advantage of managers over owners, and thus lead to appropriate targets being set. Incentives provided to managers must also motivate them. Many contracts in the study do not include either bonuses or punishments for under-achievement. Lastly, the bonuses that are included must be enforceable. Contracts in the study that included bonuses did not allow the managers to take the state to court if they failed to pay. Once these three items are included in a contract it has been shown that performance improves.
USAID. 2000. "The Post Privatization Development of Former Law 203 Companies: 15 Case Studies." Special Study for USAID by CARANA Corporation. Washington D.C.: United States Agency for International Development.	This study evaluates the post privatization performance of 15 former SOEs in Egypt, examining the degree to which the firms are independent of the state after privatization.	Three of the 12 companies were noticeably reformed after privatization as control was passed to the private sector and corporate governance was improved. Six firms are in a transitional phase with new shareholders having implemented changes in business strategies, though the essential management structure and corporate culture remained fundamentally unchanged. The remaining six remained under state control despite privatization. The main reason for the mixed performance of the 12 companies is that while 51 percent of more equity was sold, the state still remained as the largest single shareholder in the enterprise, giving it a disproportionately large voice in decision-making.
C. Transition Economies		
Barberis, Nicholas, Maxim Boycko, Andrei Shleifer, and Natalia Tsukanova. 1996. "How Does Privatization Work? Evidence From the Russian Shops." *Journal of Political Economy*. 104: 764-790.	The study surveys 452 Russian firms that were sound at the beginning of the 1990s and attempts to measure the relative importance of the channels through which privatization can promote restructuring.	The authors find that new owners and managers increase the chance of restructuring that increases value. They emphasize the importance of new human capital in the restructuring process and find that equity incentives do not improve performance.

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Political Economy. 104: 764-790.		
Black, Bernard, Reinier Kraakman, and Anna Tarassova. Forthcoming. "Russian Privatization and Corporate Governance: What Went Wrong?" *Stanford Law Review.*	A descriptive survey of the history of privatization in Russia. Several specific cases are analyzed in more detail.	The authors find that privatization has created a "kleptocracy" and has failed. They emphasize the importance of decreasing incentives for self-dealing when programs of privatization are designed.
Brada, Josef C. 1996. "Privatization is Transition--Or is it?" *Journal of Economic Perspectives.* 10: 67-86.	This study sets out the different methods of privatization.	Privatization can occur in a number of ways, through restitution, sale of state property, mass or voucher privatization and privatization from below. The author finds that there are two key lessons when looking at privatization in transition economies. Firstly the method of privatization must vary according to the specific SOE and no "grand design" can be drawn up for privatizing a host of enterprises. In some cases the majority of SOEs can only be realistically privatized by giving them away. The second lesson is that it is difficult to achieve ownership by outsiders.
Claessens, Stijn, and Simeon Djankov. 1999a. "Enterprise Performance and Management Turnover in the Czech Republic." *European Economic Review.* 43: 1115-1124.	The study uses a sample of 706 privatized Czech firms during 1992-1997 to examine the effect of management turnover on changes in profitability and labor productivity.	When new managers are appointed by private sector owners there is a significant improvement in profit margins and labor productivity. New managers that are appointed by the National Property fund also improve performance but not by as much.
Claessens, Stijn, and Simeon Djankov. 1999b. "Ownership Concentration and Corporate Performance in the Czech Republic." *Journal of Comparative Economics*. 27: 498-513.	Using the same sample data as above this study looks at the relationship between ownership concentration and profitability and labor productivity.	Concentrated ownership is found to be linked with higher profitability and labor productivity. The authors also find that non-bank-sponsored investment funds improve performance more than bank-sponsored funds.
Djankov, Simeon. 1999a. "Ownership Structure and Enterprise Restructuring in Six Newly Independent States." *Comparative Economic Studies*. 41(1): 75-95.	The author examines the relationship between ownership structure and firm restructuring for Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russia and Ukraine. The sample contains 960 firms privatized between 1995 and 1997 in these countries.	It is found that when foreign ownership is significant (greater than 30 percent), it is positively related to restructuring. Managerial ownership is positively related to restructuring at low levels (less than 10 percent) and high levels of ownership, but is negative in between. Employee ownership is found to be insignificant except at low levels of ownership where it has a positive effect.
Djankov, Simeon. 1999b. "The Restructuring of Insider-Dominated Firms: A Comparative Analysis." *Economic Transition*. 7(2): 467-479.	Using the same survey data as above this study looks at the effects of different privatization patterns on the process of restructuring. Georgia (92 firms) used voucher privatization, while most Moldovan firms (149 firms) were either purchased by investment funds or sold for cash to managers.	Management buy-outs are positively correlated with enterprise restructuring. Firms that are privatized through vouchers do not restructure any more rapidly than state owned firms. This implies that incentives to restructure are weaker when manages are given firms for free, since their income is not wholly based on the success of the firm.
Djankov, Simeon, and Peter Murrell. 2000. *The Determinants of Enterprise Restructuring in Transition: An Assessment of the Evidence*. Washington D.C.: The World Bank (see also Djankov, Simeon, and Peter Murrell. 2000. "Enterprise Restructuring in Transition: A Quantitative Survey." Washington D.C.: The World Bank).	The authors identified more than 125 empirical studies that examine the determinants of enterprise restructuring. The paper provides a comprehensive review of the empirical results of privatization in transition economies using the data generated by these studies.	Private ownership produces more restructuring than state-ownership in Central and Eastern Europe. In contrast, evidence is mixed for the Commonwealth of Independent Sates (CIS) countries. The privatization effect in the non-CIS countries is more than twice the size of that in the CIS countries. Privatization to foreign owners is ten times as productive as privatization to diffuse individual owners. State ownership within traditional state firms is the least effective type of ownership. State ownership in commercialized enterprises, however, is quite effective. Product market competition has been a major force behind improvements in enterprise

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		productivity in transition economies. Privatization, hardened budget constraints, and product market competition all appear to be important determinants of enterprise restructuring in non-CIS countries, while they are less obviously so in the CIS. The evidence suggests that the difference in impact is due to the varying degree of institutional development between the regions.
Djankov, Simeon, and Gerhard Pohl. 1997. "Restructuring of large Firms in Slovakia." The William Davidson Institute Working Paper No. 73. The University of Michigan Business School.	This paper records the restructuring actions and ownership changes of firms in Slovakia. The case studies were selected to give a wide range of initial conditions, and privatization techniques.	The authors find that the majority of large Slovak firms have successfully restructured without the need for foreign investors and government-led restructuring programs. Also they find that privatization to insiders did not hamper restructuring as the managers invested heavily in new technology, laid off large numbers of workers, looked for foreign partners and were prepared to sell controlling stakes to outsiders in return for new financial resources. These findings support the view that privatization programs should aim to speedily transform ownership and not be overly concerned with the selection of perfect owners.
Earle, John. 1998. "Post-Privatization Ownership and Productivity in Russian Industrial Enterprises." *SITE Working Paper 127*. Stockholm, Sweden: Stockholm Institute of Transition Economics.	Looks into the ownership structure and its impact upon labor productivity in Russian industrial firms. The survey sample includes 86 firms that were 100% state-owned, 299 that were partially privatized and 45 that were newly created. The 1994 survey data examines the impacts of insider, outsider or state ownership upon the performance of the firm.	The authors use ordinary least squares regression to show a positive effect of increased private ownership upon labor productivity. However only outsider ownership is significantly related with such changes. The authors conclude that placing insiders in control of a firm has negative long-run implications for restructuring.
Earle, John S., and Saul Estrin. 1998. "Privatization, Competition, and Budget Constraints: Disciplining Enterprises in Russia." *SITE Working Paper 128*. Stockholm, Sweden: Stockholm Institute of Transition Economics.	The authors used a 1994 survey data to examine whether privatization, competition and hardening of budget constraints play efficiency-enhancing roles in Russia.	They find that 10 percentage point increase in private share ownership raises real sales per employee by 3-5 percentage points. Subsidies (soft budget constraints) reduce the pace of restructuring in state-owned firms.
Dyck, I.J. Alexander. 1997. "Privatization in Eastern Germany: Management Selection and Economic Transition." *American Economic Review.* 87: 565-597.	This study looks into the Treuhand's role in restructuring and privatizing eastern Germany's SOEs. The Treuhand is unique in that it privatized more than 13,800 firms and parts of firms and had the resources to pay for the restructuring itself, but never actually did so. Instead it sold quickly to existing western firms rather than giving the SOEs away or selling them to capital funds.	The author attempts to rationalize this approach and finds that those firms owned by western firms were much more likely to bring in western managers into key position than SOEs. Treuhand is also found to have attempted to open sales to all buyers rather than favoring eastern Germans. In conclusion privatization plans that are open to western buyers and allow management change are more likely to exhibit improved performance in the firm.
Fischer, Stanley, and Ratna Sahay. 2000. "The Transition Economies After Ten Years." *IMF Working Paper WP/00/30*. Washington D.C.: International Monetary Fund.	The paper summarizes the macro-economic performance of the transition economies, accounting for the widely differing outcomes in the 25 countries covered in the study.	The most successful transition economies are those that have both stabilized and undertaken com-prehensive reforms, and the more and faster reform is better than less and slower reform. The study concludes that both stabilization policies and structural reforms, in particular privatization, contribute to growth.
Frydman, Roman, Cheryl Gray, Marek Hessel, and Andrej Rapaczynski. 1998. "The Limits of Discipline: Ownership and Hard	A sample of medium sized manufacturing firms in the Czech Republic, Hungary and Poland is used in order to discover the impact of financial	SOEs are found to represent significantly higher credit risks than private or privatized firms due to inferior revenue performance and the softer budget constraints they face. Since both of these factors act

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Budget Constraints in the Transition Economies." *Mimeo*. http://www.ihs.ac.at/publications/tec/te-5.pdf	discipline on governance related deficiencies. The authors argue that although financial discipline restrict waste and force better cost management, there is a limit to what it can achieve. Instead they put forward that the firm's ultimate success is due to the level of inventiveness, creativity and readiness to accept risk.	in tandem it is not simply enough to impose harder budget constraints while the SOE is still not able to generate enough revenue to repay obligations. The authors therefore recommend that budget constraints should only be hardened if accompanied by speedy privatization.
Frydman, Roman, Cheryl Gray, Marek Hessel, and Andrej Rapaczynski. 1999. "When Does Privatization Work? The Impact of Private Ownership on Corporate Performance in Transition Economies." *Quarterly Journal of Economics*. 114(4): 1153-1191.	Compares the performance of privatized and state firms in the Czech Republic, Hungary and Poland using a sample of 218 mid-sized manufacturing firms. 90 of these firms were under state control and 128 had been privatized. The report focuses on four aspects of performance: sales revenue, employment, labor productivity, and labor and material costs. The authors employ panel data regression in order to single out ownership effects.	The evidence in the report suggests that firms that are privatized and controlled by outside owners experience enhanced revenue and productivity, while those controlled by insiders do not see any significant difference. Domestic financial companies and foreign owners add 18 and 12 percentage points respectively to the annual growth rate of the firm. Outside owners also add 9 percentage points to productivity growth. Other findings conclude that these gains do not come at the expense of increased unemployment and that insider controlled firms are much less likely to restructure.
Frydman, Roman, Marek Hessel, and Andrzej Rapaczynski. 2000. "Why Ownership Matters? Entrepreneurship and the Restructuring of Enterprises in Central Europe." *The Center for Law and Economic Studies Working Paper 172*. New York: Colombia University School of Law.	The study looks at survey data from 506 manufacturing firms in the Czech Republic, Hungary and Poland. Compares outsider, insider, and state ownership effects on entrepreneurship by looking at ability to increase revenues in privatized firms.	The authors find that all state and privatized firms conduct similar types of restructuring. Firms owned by outside investors have significantly better results when conducting product restructuring. The authors conclude that outsider owned firms are more entrepreneurial due to incentive, rather than human capita, effects that are brought about by privatization.
Frydman, Roman, Cheryl W. Gray, Marek Hessel, and Andrzej Rapaczynski. 1997. "Private Ownership and Corporate Performance: Some Lessons From Transition Economies." *Policy Research Working Paper 1830*. Washington D.C.: World Bank. http://econ.worldbank.org/docs/628.pdf	The study is based on a large sample of mid-sized firms in the Czech Republic, Hungary and Poland. It compares the performance of privatized and state firms.	There is strong evidence that private ownership—except worker ownership—dramatically improves corporate performance. Privatization is associated with employment increases.
Groves, Theodore, Yongmiao Hong, John McMillan, and Barry Naughton. 1994. "Autonomy and Incentives in Chinese State Enterprises." *Quarterly Journal of Economics*. 109: 183-209.	This study looks at changes that occurred in Chinese firms when output decisions were shifted from the government to the firm, and when firms were allowed to retain more of their profits.	They find that this led to managers paying more in bonuses and hiring more workers on fixed-term contracts. These incentives led to an increase in productivity. The greater autonomy therefore raised workers' wages and investment in the firm.
Havrylyshyn, Oleh, and Donald McGettigan. 1999. "Privatization in Transition Countries: A Sampling of the Literature." *IMF Working Paper WP/99/6*. Washington D.C.: International Monetary Fund. http://www.imf.org/external/pubs/ft/wp/1999/wp9906.pdf	The paper reviews a selection of studies on privatization experiences in transition countries. As transition has continued and as more empirical studies have been undertaken, it appears that the view that privatization was not central for restructuring and firm performance has been largely discredited.	Two clear lessons emerge from the literature: Private enterprises almost invariably outperform state-run companies. In other words, any privatization is better than none, regardless of whether a stable, competitive environment has been established first or not; Private companies that started from scratch rank as the best performers, followed by newly privatized firms run by outsiders, either local or foreign. Privatized companies dominated by insiders are least efficient and productive, but even these regularly do

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		better than state enterprises. It is tempting to conclude that the general market and competitive environment is more important than the method of privatization. Eventually, evidence may support this, but the research so far does not permit such a conclusion. Two findings argue in favor of it: (I) start-up firms outperform others no matter what privatization method is used; and (ii) the success of Central European private sector development relative to the former Soviet Union countries partly reflects a better property rights business environment. Perhaps the most important lesson after a decade of transition in the centrally planned economies to market-oriented systems is that private sector development can surely be rated a success. Despite a handful of reversals as well as slowdown in 1998, most transition countries are now recording positive growth in output—the bottom line indicator of trends in efficiency.
Kornai, János. 2000. "Ten Years after 'The Road to a Free Economy': The Author's Self-Evaluation." *Working Paper*. Cambridge, MA: Harvard University. http://www.worldbank.org/research/abcde/washington_12/pdf_files/10years.pdf	Looks at the privatization process in Hungary.	The author suggests that hard budget constraints are just as important as privatization, liberalization and stabilization. He argues that harder budgets constraints act as a selection process. Those that are profitable can be sold, while those that are not must be allowed to go bankrupt rather than be given away.
Lizal, Lubomir, Miroslav Singer, and Jan Svejnar, 2001, "Enterprise Break-ups and Performance During the Transition from Plan to Market," *Review of Economics and Statistics*. 83(1): 92-99.	This study looks at the effect on performance effects that the break up of Czechoslovak SOEs had including both the master firm and the spin offs. The sample contains 635 firms from 1991 and 1992.	In 1991 it is found that the break-ups had positive effects straight away for both master and spin off if the firm was either medium or small in size. Larger firms suffered negative effects. There are similar results for the break-ups that occurred in 1992 but they are not statistically significant.
Nellis, John. 1999. "Time to Rethink Privatization in Transition Economies?" *IFC Discussion Paper 38*. Washington D.C.: International Finance Corporation. http://www.ifc.org/economics/pubs/dp38/dp38.pdf	The paper reviews the accomplishments and shortcomings of privatization in transition economies.	Countries in Central and Eastern Europe and the Baltic states - closer geographically, historically and culturally to Western commercial traditions and markets - have generally privatized more swiftly and with much better results than their more Eastern counterparts. Too much was expected and promised of privatization in institutionally weak transition economies where the speedy, massive, insider-oriented forms of privatization have generally not, so far, led to the restructuring required to allow firms to survive and thrive in competitive market operations. Re-nationalization would be a desperate measure, with a high likelihood of failure because the forces and conditions that lead governments to fail in privatization are the same that prevent effective and efficient SOE management.
Pinto, Brian, Marek Belka, and Stefan Krajewski. 1993. "Transforming State Enterprises in Poland: Evidence on Adjustment by Manufacturing Firms." *Brookings Papers on Economic Activity*. 1: 213-270.	This study surveys 75 SOEs from Poland from 5 different manufacturing sectors covering the period 1989-1992. This period looks at the 6 months prior to the reform program and two and a half years into it. At the start of the survey all of the firms were SOEs. By 1992, 3 had been privatized and 24 commercialized.	The experiences of Poland show that rapid change of ownership can have valuable effects by giving unambiguous signals changing relative prices and indicating a commitment to hard budgets. The study also shows that restructuring before privatization can have an impact that is just as great.
Pivovarsky, Alexander. 2001. "How Does Privatization Work?	This paper uses data from 376 medium and large Ukrainian enterprises to	The authors find that ownership concentration is positively correlated with enterprise performance in

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Ownership Concentration and Enterprise Performance in Ukraine." IMF Working Paper WP/01/42. Washington D.C.: International Monetary Fund.	investigate the relationship between ownership concentration and enterprise performance.	Ukraine, and that ownership by foreign companies and banks is associated with better performance over domestic owners.
Pohl, Gerhard, Robert E. Anderson, Stijn Claessens, and Simeon Djankov. 1997. "Privatization and Restructuring in Central and Eastern Europe: Evidence and Policy Options." *World Bank Technical Paper 368*. Washington D.C.: World Bank. http://www.worldbank.org/ecspf/final/html/papers/entr509.htm	The study analyzes the financial and operating data (1992-1995) for more than 6,300 industrial firms in seven countries: Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovak Republic, and Slovenia. An econometric analysis measuring changes in total factor productivity is used to identify the government policies that most encouraged firms to restructure.	Privatization has a large impact on restructuring. On average, a firm that has been privatized for four years will increase productivity 3-5 times more than a similar firm that is still in state ownership.
Sachs, Jeffrey, Clifford Zinnes, and Yair Eilat. 2000. "The Gains from Privatization in Transition Economies: Is Change of Ownership Enough?" *CAER Discussion Paper 63*. Cambridge, MA: Harvard Institute for International Development. http://www.hiid.harvard.edu/caer2/htm/content/papers/confpubs/paper63/paper63.pdf	The authors examine the empirical evidence across 24 countries to determine whether change-of-title alone has been sufficient to achieve economic performance gains or whether other factors (e.g. institutions to address agency issues, hardening budget constraints, market competitiveness, and depolitisization of firm objectives as well as the implementation challenge of developing institutions and a regulatory framework to address them) are important.	Privatization involving change-of-title alone is not enough to generate economic performance improvements. While reforms directed at prudential regulation, corporate governance, hardening of enterprise budget constraints, management objectives, and developing capital markets contribute to economic performance on their own, the real gains to privatization come from complementing the above with change-of-title reforms. The higher the level of prerequisite reforms, the more positive is the economic performance impact from an increase in change-of-title privatization. In fact the study finds a threshold level of reforms in order for change-of-title privatization to have a positive economic performance response. The conclusion is that while ownership matters, institutions matter as much.
Shirley, Mary M., and Lixin Colin Xu. 2000. "Empirical Effects of Performance Contracts: Evidence from China." Paper presented at a Senior Experts' meeting on *Corporate Governance of State-owned Enterprises in China* in Beijing, on January 18-19, 2000.	This study examines the performance contracts issued in China and their effects on productivity.	The large sample of manufacturing firms shows that on average these contracts do not improve performance. However improvements did occur in 38 percent of the firms in the study, and these occurred where the performance contract provided sensible targets, stronger incentives, longer terms and were based in more competitive industries.
Smith, Stephen C., Beon-Cheol Cin, and Milan Vodopivec. 1997. "Privatization Incidence, Ownership Forms, and Firm performance: Evidence From Slovenia." *Journal of Comparative Economics*. 25: 158-179.	This study examines the impact of foreign and employee ownership on firm performance using a sample of 22,735 firm-years of data from Slovenia (1989-1992).	The authors find that a one percentage point increase in foreign ownership brings about a 3.9 percent increase in value-added, while employee ownership adds 1.4 percent to value-added. Firms with higher revenues, profits and exports are also found to be more likely to have foreign and employee ownership.
D. Developed Countries		
Allen, Franklin, and Douglas Gale. 1999. "Corporate Governance and Competition." Working Paper. Philadelphia, PA: Wharton School, The University of Pennsylvania. http://fic.wharton.upenn.edu/fic/wfic/papers/99/9928.pdf	An overview of the effectiveness of different corporate governance strategies and competition.	The corporate governance systems operating in different countries are distinct. In the U.S. and U.K. it is often argued that the threat of takeover ensures managers act in the shareholders' interests. In countries such as Germany, Japan, and France it is suggested banks and other institutions act as monitors. There is some evidence that neither system is particularly effective. The authors argue that competition among firms may be more effective than either of these mechanisms in ensuring that resources are used efficiently.

Authors	Methodology	Main Findings
Boardman, Anthony E., Claude Laurin, and Aidan Vining. 2000. "Privatization in Canada: Operating, Financial and Stock Price Performance With International Comparisons." *Working Paper*. University of British Columbia, Vancouver.	This study looks at the performance of nine Canadian firms privatized between 1988 and 1995. A variety of 3-year post privatization ratios are compared to 5 year pre privatization values. Long-run stock returns are also calculated for the divested firms.	Return on sales or assets more than double after privatization and efficiency, sales and capital spending also increase significantly. Leverage and employment decline significantly as well. Over long-term periods the privatized firms outperform the Canadian stock market.
Davidson, Richard. 1998. "Market Analysis: Underperformance Over?" *Privatisation International Yearbook*. London: IFR Publishing.	The author examines SIPs from Austria, France, Italy, Spain and the UK, looking particularly at 1, 3, 5, and 10 year market adjusted returns. The study focuses on the period up until March 1997.	The results show a long period of market underperformance (1-1.5% p.a.) until the last 12 months of the study where SIPs outperform European market averages.
Kay, J.A., and D.J. Thompson. 1986. "Privatisation: A Policy in Search of a Rationale." *Economic Journal*. 96: 18-32.	An overview of privatization in Britain.	This report concludes that while privatization in Britain has been the most popular way in which to boost the performance of previously state-owned enterprises, the promotion of competition can have effects that are just as beneficial. This is particularly true if a natural monopoly exists within a particular industry. Franchising in particular is an effective way of introducing competition. The main difficulty in achieving this is resistance from the incumbent management which, the authors argue, is why privatization has become such a widespread means of improving SOE performance.

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