

PRIVATIZATION

Successes and Failures

EDITED BY GÉRARD ROLAND

Foreword by Joseph E. Stiglitz



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**THE INITIATIVE FOR POLICY
DIALOGUE AT COLUMBIA**

**JOSE ANTONIO OCAMPO, JOSEPH E. STIGLITZ,
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The Initiative for Policy Dialogue (IPD) at Columbia University brings together academics, policy makers, and practitioners from developed and developing countries to address the most pressing issues in economic policy today. IPD is an important part of Columbia's broad program on development and globalization. The Initiative for Policy Dialogue at Columbia: Challenges in Development and Globalization presents the latest academic thinking on a wide range of development topics and lays out alternative policy options and trade-offs. Written in a language accessible to policy makers and students alike, this series is unique in that it both shapes the academic research agenda and furthers the economic policy debate, facilitating a more democratic discussion of development policies.

Privatization—the conversion of state-owned enterprises into privately managed assets—has been one of the most radical and controversial economic policies of the last quarter century. Set in motion in the 1980s as a response to the disappointing performance of publicly owned companies, the privatization wave that began in the West became part of policy prescriptions for developing countries in Asia, Latin America, and Africa and the transition economies in Central and Eastern Europe. But while there have been some successful cases of privatization, it has often turned out to be more disappointing than some of its advocates originally expected, and in some places it has generated great social unrest.

This volume brings together some of the world's foremost experts on the subject of privatization, presenting a comprehensive overview of the issues as well as coverage of specific privatization projects undertaken in different continents, with a sophisticated analysis of the trade-offs involved. It is written not just for academics but also for a far wider audience of policy makers and for all those who want to understand all sides of the privatization debate and want to participate in the search for ways to manage the

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privatization process to maximize the likelihood of success and enhance sustainable economic growth in developing countries.

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FOREWORD

Joseph E. Stiglitz

This book brings together a set of essays on recent experiences and current thinking in the debate over privatization, the conversion of state-owned assets into privately managed assets. Especially after Ronald Reagan and Margaret Thatcher assumed office in the United States and the United Kingdom, a conventional wisdom developed that private management and ownership was better, in some sense, than public ownership and management: enterprises would be run more efficiently and there would be less opportunity for corruption. The World Bank and the International Monetary Fund (IMF) pushed countries to privatize as much as they could and as fast as they could. Privatization became not only one of the pillars of the “Washington Consensus” but also a condition imposed on countries seeking assistance.

The experiences of the last 15 years have cast a pallor over this unbridled enthusiasm for privatization. As these essays illustrate, a new, more pragmatic consensus is developing—more consistent with economists’ normal two-handed stance, “it depends.” Privatization has had some successes, but it has also been marked by dramatic failures and disappointments. There are dramatic successes, and failures, in state ownership. The questions being posed today are: When will privatization be successful? And how can the privatization process be managed to maximize the likelihood of success?

Perhaps no subject in development arouses more passions—on both sides—than privatization. The privatization process has been marked by enormous abuses: in many countries a few individuals managed to grab hold of previously state-owned resources for a pittance and become millionaires—or billionaires. In a few years, Russia became a country marked by great inequality, with a Gini coefficient as bad as many in Latin

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America. By some estimates, \$1.5 trillion in assets were stolen. While Russian became a language commonly spoken in the most fashionable resorts around the world, Russia's pensioners were becoming increasingly impoverished, its educational system, once one of the finest in the world, was decaying, and the Russian economy was declining. Life expectancy was decreasing, while elsewhere (outside of those African countries afflicted with AIDS) it was on the rise.¹

Elsewhere, I have explained why these results should not have been unexpected.² Critics of state-owned enterprises (SOEs) argued that they were subject to corruption; that is, that government officials responsible for managing them often did not act in the interests of those they were supposed to be serving (i.e., the public). This is an example of a classic principal-agent problem. But there is an even more serious principal-agent problem in the privatization process itself. What is at stake is not just the current flow of profits (rents), but the present discounted value of these rents, which is much larger. It follows that incentives for abuse are all the greater. Moreover, there are a variety of ways by which the extent of abuse in the running of SOEs can be monitored and controlled (e.g., by benchmarking), but experience suggests that it may be more difficult to control abuses within the privatization process. Standard remedies have focused on the use of auction processes, but in Russia and elsewhere it became clear that there is ample scope for auctions to be rigged by setting the rules (including "qualifying" bidders).

Other failures of privatization arose when monopolies (especially natural monopolies) were privatized before regulatory and antitrust systems were put into place. The private sector was better at exploiting monopoly power than the government: overall economic efficiency was not enhanced. Monopoly in Mexico's telecommunications sector, the result of a poorly designed privatization, has helped create one of the richest men in the world. High telephone prices, however—a multiple of those in India—have not helped Mexico's development.

But while privatization has deservedly had its critics, so have SOEs. Many have not been run efficiently, and many have created losses that have been a burden on the state—money that could have been used for education or to pursue other developmental objectives. There are instances of corruption. Even advocates of state ownership, like Greece's socialist prime minister, Andrea Papandreou, talked of the challenges of "socializing" the SOEs,³ making them act in ways that were consistent with social objectives, not just the interests of their managers and workers.

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CHAPTER 6

Privatization in South Asia

Nandini Gupta

In the last decade, governments worldwide have raised over US\$1 trillion from the sale of state-owned enterprises (SOEs) (Megginson and Netter, 2001). However, the South Asian economies of Bangladesh, India, Pakistan, and Sri Lanka have been slow to divest from government-owned firms. Revenues raised from privatization between 1991 and 1999 totaled just US\$11.9 billion in South Asia (World Bank, 2001b). In contrast, Latin America raised over US\$177 billion over the same period (World Bank, 2001b). In this chapter we discuss the privatization process in South Asia with a focus on India, the largest economy in the region.

State-owned enterprises in the region are extremely inefficient due to rent seeking by politicians and workers, protection from competitive forces, and the absence of market-based incentives for workers. As a result, they are a significant drain on government resources throughout the region. For example, between 1991 and 1999, the Government of India invested Rs.612 billion in SOEs and earned dividends of Rs.179 billion,¹ an average return of 3.4% (Department of Disinvestment, 2001). Almost all this investment was financed by the government by issuing debt at interest rates above 10%, which is considerably higher than the rate of return. The auditory body of the Indian government reports that between 2003 and 2004 only 156 SOEs earned profits while 116 companies suffered losses. Moreover, among the firms reporting profits, just 42 companies from the oil, power, telecommunications, coal, and steel sectors contributed 80% of the overall profits earned (Comptroller and Auditor General, 2003–2004).

Despite the inefficiency of SOEs, public support for privatization remains low. Reluctance to privatize is in part due to the historical context of state ownership, which we describe in the first section.

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appears to influence the process, as the evidence suggests that politicians are unwilling to give up control of certain firms.

We discuss evidence that partial privatization has led to an improvement in the operating performance of Indian firms in the fifth section. According to agency theory, state-owned firms have difficulty monitoring managers because there is neither an individual owner with strong incentives to monitor managers nor a public share price to provide information on manager actions as judged by stock market participants. Results from Gupta (2005) suggest that selling minority equity stakes without the transfer of management control leads to a significant increase in the level and growth rates of profitability, labor productivity, and investment spending. Investment spending on research and development and expenditures on fixed capital also rise significantly following an increase in private ownership share.

The role of competition is an important factor in the privatization process as it may help improve the performance of SOEs. In the sixth section, we discuss evidence suggesting that competitive forces and private ownership have a complementary impact on firm performance. We also discuss evidence suggesting that the presence of SOEs in a sector may in fact inhibit competition in that sector. In particular, the government is much less likely to remove barriers to foreign investment in industries with profitable and capital intensive SOEs.

In the seventh section, we describe the privatization process in other South Asian economies. Some of these economies have made more progress than India. For example, the Government of Pakistan has privatized several financial institutions, a key infrastructure sector. We discuss strong evidence from the privatization of Bangladeshi jute mills that SOEs are used by politicians to dole out jobs. In particular, there is more surplus employment of white-collar workers than of low-wage workers in these firms.

In the eighth section, we discuss evidence suggesting that privatization has not led to massive layoffs in India. Moreover, the number of workers employed by Indian federal government-owned enterprises who may be affected by privatization amounts to less than 1% of India's total workforce (Department of Disinvestment, 2001). However, SOE employee unions have a lot of political clout. For example, voluntary retirement programs appear to have significantly overcompensated workers throughout the region. Evidence also suggests that SOE workers may have successfully delayed privatization in India. The chapter concludes with a

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discussion about privatization in infrastructure. In India, infrastructure investment is a tenth of China's annual investment. One way in which investment can be increased is by picking up the pace of privatization and using the revenues to invest in these sectors. However, past experience suggests that prior to privatization the government will need to design a regulatory framework in certain infrastructure sectors such as electricity.

INSTITUTIONAL BACKGROUND

GOVERNMENT OWNERSHIP AND STATE-LED INDUSTRIALIZATION

Prior to independence from the United Kingdom, South Asian economies were overwhelmingly agrarian with little or no investment in industry. In 1913, for example, 76% of British India's exports were foodstuffs and raw materials, while manufactured goods accounted for 79% of imports (Chandra, 1992). Although a small manufacturing sector developed in the early 1900s, it did not compensate for the collapse of the traditional hand-crafts industries following the Industrial Revolution in Britain in the nineteenth century. At the time of independence, between 2% and 3% of the labor force was employed in nonagricultural sectors, and manufacturing primarily consisted of labor-intensive industries. The financial sector was similarly underdeveloped, with one bank per 1.7 million inhabitants in 1914 (Chandra, 1992). The partition of British India into India, West Pakistan, and East Pakistan (which became Bangladesh in 1971) created further imbalances in the industrial structure of these economies. Most industry was located in modern India, while raw materials were produced in Pakistan and Bangladesh. For instance, in 1947 just 5% of the large-scale industrial facilities in British India were located in what is now Pakistan.

Following independence, these countries focused on an inward-oriented development strategy that emphasized import-substituting industrialization and gave the state a dominant role in implementing this strategy. This is not surprising because the leaders of the time identified the colonial regime with *laissez-faire* capitalism and viewed its liberal trade policies as a means of ensuring access for manufactured goods. South Asian economies relied on their governments to operate virtually all infrastructure and financial services and many industrial units. Public sector-led industrialization was intended to make up for inadequate supply

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of capital in the private sector and to pursue redistributive policies. Srinivasan (2003) argues that an entrepreneurial class did exist at the time of independence, but distrust of markets and foreign trade led the government to adopt a dominant role. In subsequent decades, many of these economies significantly expanded the scope of the public sector by nationalizing many privately owned companies. Following its own independence from West Pakistan in 1971, the government of Bangladesh seized the plants formerly owned by West Pakistanis. These represented nearly 90% of industrial assets in the new nation (Bhaskar and Khan, 1995).

In the aftermath of independence, the Industrial Policy Resolution of 1948 outlined India's industrialization strategy by categorizing industries by end use (capital, intermediate, and consumer goods), ownership (public, private, cooperative, or joint), and size (organized, small scale, cottage, and village) (Srinivasan, 2003). What set the stage for the next 50 years was the reservation of particular industrial sectors exclusively for government-owned firms. These included not just infrastructure sectors such as electricity, railways, and telecommunications, but also industries producing key capital goods and raw materials such as steel, petroleum, and heavy machinery. The motivating idea was that by controlling key raw materials, the government could direct industrial development. However, there were other objectives as well. Revenues from the surplus generated by SOEs were supposed to provide an alternative to taxation revenues to finance government programs. These revenues were to be generated through fixed pricing schemes for their products. State-owned enterprises were also intended to promote economic development in backward areas and to set an example of worker welfare that the private sector could emulate.

The scope of the government expanded well beyond infrastructure and heavy industries. For example, the Indian government owns luxury hotels and bakeries. The Indian public sector consists of departmental enterprises that are run directly by government ministries, such as the railways, the postal service, telecommunications, irrigation, and power, as well as enterprises that have separate boards of directors.

The First and Second Five-Year Plans outlined the development strategy pursued in India until the last decade. These plans emphasized investment in heavy industries, import substitution, and a large expansion in the public sector. Moreover, government interference was not just restricted to particular sectors of the economy. In order to finance the investments proposed in the Second Five-Year Plan, elaborate restrictions on investment and production across all industrial sectors were necessary.

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These included industrial licensing, where one needed government permission regarding the scale, location, and technology of any investment project, and exchange controls, where exporters had to remit all foreign exchange earnings to the central bank at the fixed exchange rate; the earnings were redistributed in turn through import licensing. In addition, there were restrictions on issuing capital in domestic markets, price controls on both consumption goods and raw materials, extensive trade barriers, and agricultural subsidies and price controls. Further, most nationalized banks were required to lend more than 50% of their loanable funds to the government (and SOEs) through various reserve requirements (Srinivasan, 2003).

This development strategy did not produce spectacular economic performance. From the 1950s until the 1980s, real GDP growth in India averaged about 3.75% (Srinivasan, 2003). Table 6.1 provides GDP, stock market capitalization, and industrial growth rates in recent decades for all the economies in the region.

As in the rest of the developing world, SOEs in this region are characterized by huge losses, surplus employment, overcapacity, and underutilization of assets, and are subject to political interference. More than half of the firms owned by the Indian federal government were loss-making in the 1990s. According to the government of India's own numbers, between 1990 and 1998 the average ratio of profit after tax to sales was -4.4%, and the average ratio of wages to sales was 18.9% among manufacturing SOEs (Department of Disinvestment, 2001). In contrast, among private manufacturing firms the return on sales averaged 6.7%, while the average wages to sales ratio was only half as high as that of SOEs over the same period (Department of Disinvestment, 2001). Moreover, SOEs moreover account for a large share of investment. In 1993, the public sector in India absorbed 42% of gross fixed capital formation while producing 29% of GDP (Joshi and Little, 1996).

THE ECONOMIC REFORMS AND PRIVATIZATION POLICY

ECONOMIC REFORMS (1991-2004)

Limited liberalization and fiscal expansion in the 1980s led to higher growth rates in India, which were accompanied by large fiscal and current account deficits financed by internal and external borrowing at non-concessional rates. In 1991, the current account deficit was about US\$10

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TABLE 6.1 Key Economic Characteristics of South Asia

Country	Year*	Federal Government Debt (% of GDP)	GDP Growth (annual %)	GDP Per Capita (constant 1995 US\$)	Industry, Value Added (annual % growth)	Market Capitalization (% of GDP)
Bangladesh	1991–1994	0	4.5957748	291.5607	6.8962422	1.47996964
	1995–1999	8.019602	5.006274	336.59334	7.1744196	4.5155396
	2000–2003		5.23999625	391.4013	6.8499135	2.6435775
India	1991–1994	51.15583	4.864195	335.73754	5.30943462	26.43449
	1995–1999	49.973048	6.5269376	415.7512	6.305769	33.13592
	2000–2003	56.67633	5.4220345	490.158325	5.4962175	31.90472
Pakistan	1991–1994	61.89656	4.5442434	472.35544	5.489095	17.1769306
	1995–1999	15.816938	3.4067906	504.24332	3.9284193	14.0026306
	2000–2003	90.00384	3.86855075	523.646975	3.64099	15.12906225
Sri Lanka	1991–1994	96.415152	5.58	665.43572	7.254278	19.307054
	1995–1999	91.480482	4.940877	808.67358	6.2718838	12.686304
	2000–2003	99.993005	3.47721675	903.371475	2.983635	9.9455465

*The variables are averaged over the years indicated.

Source: World Bank, *World Development Indicators*, various years.

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billion, or 3% of GDP; the budget deficit was at 10% of GDP; the inflation rate was between 12% and 13%; and foreign exchange reserves had fallen to US\$1 billion, enough to finance about two weeks of imports (Joshi and Little, 1996). The 1991 crisis was a result of these macroeconomic factors, which along with political uncertainty and rising oil prices following the first Gulf War led to a sharp downgrade in India's credit rating and put a stop to foreign private lending. The time was ripe for India to institute changes in its development strategy. In particular, the fall of the Soviet Union and the increasingly visible success of China's economic reforms had led to a gradual recognition of the failure of the central planning model. The crisis allowed the reformers to step in.

In 1991, India instituted an economic reforms package, which involved a dismantling of the licensing system, stock market liberalization, entry liberalization in industries previously reserved for the public sector, decrease in restrictions on foreign direct investment, and trade liberalization. The Industrial Policy Resolution of 1991 argued for a shift in the state-led industrialization and import substitution policies of the past and stated that SOEs "have become a burden rather than being an asset to the government" (paragraph 31). The policy resolution further stated that the government should withdraw from sectors that are inefficient and non-strategic, and in which the private sector has developed expertise. It also argued for partial divestiture in SOEs "in order to provide further market discipline to the performance of public enterprises" (paragraph 34).

However, successive governments between 1991 and 1999 did not make much progress in privatization. The Committee on Disinvestment of Shares in Public Sector Units was created in 1992 to provide recommendations regarding the method of sale, the percentage of equity to be sold in particular companies, and the valuation procedure. This committee recommended that, rather than having annual targets set out in the budget, the government should have a longer-term plan, and it also recommended that a regulatory commission be set up to oversee the sales, that employees be given stock options, and that part of the proceeds be reinvested in the enterprises. None of the major recommendations of this committee were implemented by the government. The absence of a coherent policy led to allegations of inaccurate valuation of companies and also limited the participation of foreign investors.

In 1996, the government set up the Disinvestment Commission, which was to oversee the entire privatization process and revive the languishing privatization program. While the commission published 13 reports, it

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lacked the political clout to undertake this mission, which would involve challenging the politicians and bureaucrats in charge of the companies. This fact was finally recognized by the Bharatiya Janata Party-led government elected in 1999, which led to the creation of a separate Department of Disinvestment and a cabinet-level position for the minister of disinvestment in 1999.

Since 1991, nearly every government's annual budget has declared that the privatization goal is to reduce government ownership to 26% of equity, the minimum equity holding necessary for certain voting powers, in all state-owned firms not in the defense, atomic energy, and railway sectors. However, until 2000 the government sold only minority equity stakes, sometimes as little as 0.1%, without transferring management control. Euphemistically referred to as "disinvestment," privatization proved to be very difficult to implement.

One of the frequent refrains in the media about the privatization program is the existence of multiple, confounding objectives. The official reasons for privatizing SOEs in India have been stated as improving governance and efficiency, freeing up resources for social programs, and developing financial markets (Department of Disinvestment, 2001). Between 1991 and 2000, successive governments sold minority stakes without transferring management control because doing so proved to be a lucrative source of revenues without the accompanying political controversy of transferring control of state-owned assets to private owners. A number of different coalition governments were formed between 1996 and 1999, none of which stayed in power for long, and the political uncertainty of this period was probably the main reason why a coherent policy on privatization did not emerge.

After the elections of 1999, the new government continued the practice of minority equity sales on financial markets, but it also sold majority stakes and transferred management control in 14 firms between 2000 and 2004. While this represents a major shift in policy from previous governments, progress was still slow. Until 2004, the government retained ownership of an average of 82% of equity in all SOEs (Gupta, 2005).

PRIVATIZATION POLICY (2004-PRESENT)

Following the elections of 2004, the new government has outlined its privatization policy under the National Common Minimum Programme. The policy can be summarized as follows: (1) Profitable enterprises will

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not be privatized. (2) Loss-making firms will be restructured or shut down. (3) Sales of minority equity stakes in financial markets will continue. (4) A National Investment Fund will be set up for the revenues from privatization to be used for investments in health, education, and employment, and for capital investments in ailing SOEs.

Profitable SOEs include companies in the oil and gas sectors, financial services, telecommunications, and energy. For example, the Life Insurance Corporation of India is the country's largest life insurance company, and Bharat Sanchar Nigam is the country's largest telecommunications company. The main issue is whether keeping these companies under government control will erode their competitiveness. Given that many of these companies are in key infrastructure sectors, the decision to keep them state-owned has implications for the global competitiveness of the entire economy.

The policy of restructuring loss-making companies is a goal that has also been embraced by previous governments, but without much success. In fact, the literature suggests that the adverse selection associated with certain types of labor restructuring in SOEs, such as voluntary retirement, may not be beneficial and can even reduce the sale price of the firm (Haltiwanger and Singh, 1999; López-de-Silanes and Chong, 2002). However, setting up a separate fund for privatization revenues, if actually implemented, will be an improvement over the previous system, where the revenues were used to reduce government budget deficits rather than being earmarked for a specific purpose. The transparent use of privatization revenues would help in building political support for privatization.

PROGRESS IN PRIVATIZATION

According to the *Global Development Finance Report* (World Bank, 2001a), the total privatization revenues raised in South Asia in 1999 were US\$11.9 billion, the second lowest amount raised among six developing/transition economy regions, and just above sub-Saharan Africa. India has been the slowest reformer in the region; however, the region as a whole lags behind most of the developing world in privatization. From 1991 to 2004, the total amount collected through privatization is Rs.476.5 billion over 14 years—an annual average of 0.2% of GDP. Table 6.2 provides an annual breakdown of the number of companies sold, the method of sale, and the revenues raised from privatization between 1991 and 2004.

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TABLE 6.2 Progress in Privatization in India, 1991–2004

Year	Number of Transactions in Which Equity Sold	Target Receipts (million Rupees)	Actual Receipts (million Rupees)
1991–1992	47	25,000	30,377
1992–1993	29	25,000	19,120
1993–1994	—	35,000	0
1994–1995	17	4,000	48,431
1995–1996	5	70,000	1,685
1996–1997	1	50,000	3,797
1997–1998	1	48,000	9,100
1998–1999	5	5,000	53,711
1999–2000	5	100,000	18,601
2000–2001	5	10,000	1,871
2001–2002	8	120,000	56,323
2002–2003	8	12,000	3,348
2003–2004	2	145,000	155,474
2004–2005	3	4,000	2,765
Total		968,000	476,464

Source: Department of Disinvestment, Government of India.

While enterprises owned by the federal government of India account for about 85% of the asset base of state-owned firms, there are also 1,036 firms owned by individual state governments. The total investment in these 1,036 regional-government-owned companies was estimated at Rs.2.5 billion in 2003; of these 209 are not operational, while over half of them are loss-making (Department of Disinvestment, “Disinvestment in States”). Until 2004, 36 of these firms had been privatized and another 111 shut down, with the state of Andhra Pradesh leading the way. In table 6.3 we list the progress made in each state.

PARTIAL PRIVATIZATION

Between 1991 and 1999, successive Indian governments sold minority equity stakes through a variety of methods, including auctions and public offerings in domestic markets, and through global depository receipts in international markets. The majority of these partial privatizations were undertaken by the government led by the Congress Party between 1991 and 1996. Until 1999, the government had sold an average of 19.2% of equity in 41 industrial, financial, and service sector firms (Gupta, 2005). Starting in 2000, the government led by the Bharatiya Janata Party has sold majority stakes and transferred management control in 14 SOEs. Although the privatization program seems to have stalled since the elections of 2004, the new government’s policies state that the practice of

TABLE 6.3 Privatization in Indian States

Name of the State	Number of State Government-Owned Firms	Investment (million Rupees)	Net Accumulated Loss (million Rupees)	Number of Loss-Making Firms	Number of Non-working Firms	Number of Privatized Firms
Andhra Pradesh	128	487,940	29,190	62	9	13
Arunachal Pradesh	7	140	140	3	2	
Assam	42	37,320	28,850	36	10	
Bihar	54	81,690	50,600	12	28	
Delhi	15	109,640	69,950	3		1
Gujarat	50	257,580	67,740	24	10	3
Haryana	45	4,430	3,840	10	4	1
Himachal Pradesh	21	47,310	6,050	13	2	3
Jammu and Kashmir	20	19,480	5,870	16	1	
Karnataka	85	278,130	18,880	30	7	2
Kerala	111	164,290	35,100	52	13	
Madhya Pradesh	26	79,230	6,000	8	15	1
Maharashtra	66	208,550	17,750	44	18	
Manipur	14	810		10	N/A	
Mizoram	5	620	150	4		
Orissa	72	72,970	23,720	22	24	9
Punjab	53	133,840	14,350	25	28	1
Rajasthan	28	115,760	3,150	11	8	1
Sikkim	12	1,210	290	6	3	
Tamil Nadu	59	61,920		33		
Uttar Pradesh	41	177,730	53,270	21	19	1
West Bengal	82	181,830	70,620	62	8	
Total	1,036	2,522,420	505,510	507	209	36

selling minority equity stakes without transferring control will continue.

In the first group of privatizations undertaken in 1991, the government sold bundles of shares combining shares from higher- and lower-value firms. This may have lowered the average price across company shares. In the first such sales between 1991 and 1992, the average price received per share was about Rs.34.83. In subsequent privatizations between 1992 and 1997, the average share price was Rs.109.61 (Chandrashekhar and Ghosh, 1999). The practice of bundling shares was only used once; subsequent partial privatizations involved the sale of shares of individual companies.

Partial privatization, where the government retains majority ownership and management control, has on average led to an improvement in the operating performance of SOEs in India (Gupta, 2005). However, this method of privatization can pose some risks for minority shareholders. In recent years, the government has sometimes undertaken actions that may be detrimental to the interests of minority shareholders. As an example, consider the case of the profitable partially privatized oil company the Oil and Natural Gas Corporation (ONGC). In 2002, the government proposed that ONGC should make a special dividend payment that would benefit the government to the tune of Rs.50 billion. The company had posted unusually high profits in the previous quarter due to an increase in world oil prices. Unfortunately, the company had also planned capital expenditures of Rs.47 billion, which it would not be able to undertake if it made the dividend payment. The government's actions in this instance were interpreted in the media as inconsistent with that of shareholder value maximization (Vaidya Nathan, 2002). In 2003, the strategic sales of two other oil companies was stalled because the government was unwilling to reduce gas subsidies prior to the elections. These subsidies on cooking gas and kerosene, the primary energy sources in India's rural areas, amounted to about US\$2.53 billion in additional costs for the companies.

From the policy statements issued by the new government, it appears that it intends to continue with minority equity sales on domestic and foreign stock markets. Given the risk to investors of government expropriation, the companies may have to significantly underprice their offerings in order to be attractive to investors, which in turn would reduce the revenues received from privatization. However, underpricing is common in privatizations around the world, as documented by Jones et al. (1999).

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Evidence suggests that privatizations through share issues promote the development of financial markets. Privatized firms are the most valuable companies in the stock markets of both developed and developing countries, and the largest share offerings in history have been privatizations (Megginson and Netter, 2001). This appears to be the case in India as well. Among the top 10 companies with the highest market capitalization on the Bombay Stock Exchange in 2005, five are partially privatized companies, and the company with the highest market capitalization is a partially privatized oil company.

Using an auction framework, Gupta and Harbaugh (2001) show that partial privatization may increase sale revenues. In the case of most privatizing economies, before a firm is privatized there is limited public information about the firm's likely profitability, implying that buyers will have differing opinions about the value of the firm. Because competition between buyers is reduced, the winning bidder will pay less than the expected value of the firm on average. This is consistent with the evidence of underpricing of shares in privatization that occurred in India and elsewhere (Jones et al., 1999). Once the firm is under new management, the market will have a much clearer idea of the firm's future profitability. For instance, post-privatization share prices may be a more accurate signal of the firm's long-term profitability compared to pre-privatization earnings statements. This more accurate public information about profitability will lower buyers' information rents on average, increasing revenues from selling the firm. Given this information problem, the state faces a dilemma. Only by selling the firm will information about future profitability be revealed, but only by holding on to the firm can the state avoid giving away information rents to buyers. Gupta and Harbaugh (2001) show that partial privatization and gradual privatization are appealing compromises that trade off the advantages to revealing information and to recapturing the rents from information revelation. When selling one firm, the government's optimal strategy will always be to sell a fraction of the firm first. In the case of several firms, the government's optimal strategy will be to sell a few firms completely and others partially or not at all.

STRATEGIC SALES AND TRANSFER OF MAJORITY CONTROL

Starting in 2000, the Indian government undertook strategic sales whereby majority stakes were sold and management control in 14 companies was transferred to private owners. Privatization revenues from strategic sales

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were about Rs.103 billion, which is less than the amount raised through partial privatizations since 1991 (Department of Disinvestment, “Disinvestment till Now”).

In the strategic sale process, the government hired investment banks to value the companies, bids were invited, and the highest bidder won. The valuation of the assets and earnings potential of SOEs has been the most contentious aspect of this process. While firms that are listed on stock exchange can be assessed based on share price, most SOEs are not listed. Also, current earnings may not reflect the future earnings potential of these companies because they are subject to government interference and may not be maximizing profit.

One difficulty that has arisen is in the valuation of nonindustrial assets such as real estate and utilities owned by these firms. For example, a Morgan Stanley study from 2005 estimates the total market value of government companies at between US\$150 and US\$175 billion (Ahya and Sheth, 2005). These estimates are based on secondary market prices and do not include assets in the form of infrastructure facilities and other operations that are not corporatized, such as real estate. Another issue is that of bad market timing, where the government has sold firms during market downturns. For example, the sale of the mining company Hindustan Zinc to the Indian business group Sterlite Industries may have coincided with a slump in world zinc prices and the stock market. The government sold 26% of equity at a per share price of Rs.40.50 in November 2002, when data from the Bombay Stock Exchange indicates that the stock was trading at an average price of Rs.16 per share (the exchange rate was Rs.48.36 to US\$1 in November 2002). In a year's time, the company's stock was trading at Rs.84.99 per share, a 110% appreciation in the value of the shares over the purchase price, and an increase of 440% in the traded price at the time of the sale the previous year. The price of Hindustan Zinc averaged about Rs.135 per share in 2004. This increase in the market value of the company may reflect market factors as well as actions taken by the new owners, but it has led to persistent allegations of underpricing of state-owned company shares.

However, underpricing in privatization may be politically beneficial for the government. For example, Biais and Perotti (2002) argue that underpricing shares of SOEs encourages public participation in privatization, thereby building support for the reform.

Underpricing may also be beneficial from a revenue maximization perspective. The sharply increasing market price of Hindustan Zinc de-

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scribed above also benefits the government because it retains a considerable equity stake in the company and will presumably be able to get a better price for the company in subsequent equity sales. Perotti (1995) argues that by retaining an ownership stake in the firm, the government can signal to investors that it will not implement policies that are detrimental to the finances of the firm. While this may have been a factor in the gradual approach to privatization, a more likely explanation for the government's reluctance to privatize is political opposition from organized labor unions and from opposition parties. Institutional barriers, particularly in financial markets, may have also played a role. Below we discuss political economy factors that may have played a role in delaying privatization.

THE POLITICAL ECONOMY OF PRIVATIZATION

One of the institutional barriers to rapid privatization is the relatively underdeveloped financial sector. In particular, capital markets may not be able to absorb share issue privatizations of large SOEs. For example, between 1987 and 1991, the ratio of stock market capitalization to GDP in the high-income OECD economies averaged about 61% (World Bank, *World Development Indicators*). In contrast, the ratio of market capitalization to GDP in India over the same period averaged about 12%. However, privatizations through public offerings in domestic capital markets can help develop these markets (Megginson and Netter, 2001). In 2003, the ratio of market capitalization to GDP in India was about 47% (World Bank, *World Development Indicators*).

Privatization has been one of the mostly politically contested reforms. It is opposed by labor unions, state governments that do not want a company located in their state privatized, bureaucrats who run the companies, political parties, and government ministers who do not want to lose control of the firms. Addressing the feasibility of implementing politically contentious reforms before elections, Prime Minister Atal Behari Vajpayee (1999–2004) said: “Well, if political effects are there, we will not reform. We’ll not reform if there [is] a political cost to pay” (Mohan, 2003).

There is now a growing literature on the role of political and economic institutions in privatization. Biais and Perotti (2002) offer an explanation for why conservative governments are more likely to privatize: to induce median class voters to buy enough shares to shift political preferences away from left-wing parties. This may be relevant for India. A prominent

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political commentator said about the sale of minority shares in 2004 by the right-wing BJP government, “So, the disinvestment has little economic significance. Mainly, it is a political ploy to sell shares cheaply to a large number of voters, hoping to reap electoral dividends” (Swaminathan and Aiyar, 2004). Bortolotti and Pinotti (2003) find evidence in support of Biais and Perotti (2002) and show that right-wing governments are more likely to use privatization methods that maximize share ownership among the electorate.

While the potential benefits from privatization, such as capital market development and lower budget deficits, are dispersed across the population, the costs tend to be concentrated among a small group, those who obtain private benefits from SOEs. Using a unique firm-level data set from India, Dinc and Gupta (2006) study the role of political patronage and electoral competition in the decision to privatize. They investigate one particular determinant of political patronage: the location of a firm. Retaining control over a firm may be a greater priority for a politician if the firm is located in the politician’s home state. For example, politicians may use SOEs to provide jobs for political supporters, which may affect their ability to win a seat. Dinc and Gupta (2006) identify the cabinet minister in charge of every firm in each year and match the home state of the minister with the state in which the main operations of the firm are located. They find that none of the firms located in the same state as the politician in charge are privatized.

The potentially adverse effects of privatization, such as layoffs, are likely to be concentrated in the region where the firm is located. As a result, the ruling party may lose support in that region if labor unions and political opponents organize in opposition. This consideration may influence the government’s decision to privatize in regions where the ruling party faces strong opposition from other political parties and is therefore vulnerable to the effects of voter backlash. Dinc and Gupta (2006) find evidence in support of this hypothesis. Specifically, they find that the rate of privatization is significantly faster if a firm is located in a state where the ruling party and its allies won a large proportion of the seats in the elections to the federal parliament. Privatization is significantly delayed if a firm is located in a state where the ruling and opposition parties are in a close and competitive race. For example, their results suggest that the pace of privatization is likely to be more than four times higher for a firm located in the state of Tamil Nadu, where the ruling party won 100% of the seats to the federal parliament, compared to a firm located in the state

of Himachal Pradesh, where the ruling and opposition parties each won 50% of the seats.

Dinc and Gupta's (2006) results also suggest that labor has played a role in the privatization decision. In India, the largest labor unions have opposed privatization and have organized massive protests and strikes. Quoting from a BBC News article from May 2003 ("Millions Strike Against Privatization"):

The strike was called by trade unions including the All India Trade Union Congress (AITUC), Centre for Indian Trade Unions (CITU) and the Hind Mazdoor Sabha, who claimed about 40 million workers were participating in the walk-out. They are calling for a halt to the government's ongoing privatisation and plans to change labour laws.

The authors find that privatization is significantly delayed if a firm has a large workforce and a high wage bill. Taken together, the results from this study provide evidence of the role played by entrenched interests, such as the politicians in charge of SOEs and organized labor, in delaying the privatization process in India.

EFFICIENCY EFFECTS OF PRIVATIZATION

In comparison to the large literature on privatization in the transition economies, there have been relatively few studies of the effects of privatization in India and other South Asian economies. The findings of existing studies suggest that privatization has improved the performance and efficiency of SOEs. Below we discuss a study by Gupta (2005), which suggests that the most commonly used privatization method in India, partial privatization, has had a positive impact on the operating performance of firms.

PARTIAL PRIVATIZATION

Across the world, most governments have adopted a partial privatization approach where they sell small equity stakes in SOEs on domestic and international stock markets. For example, Boubakri, Cosset, and Guedhami (2005) show that the government remains the controlling shareholder in about 40% of their cross-country sample of 209 firms immediately after

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privatization. Similarly, La Porta, López-de-Silanes, and Shleifer (2002) show that despite the wave of bank privatizations in the 1980s, the average share of banking assets controlled by the government remained at 48% in banks from 92 countries.

Partial privatization is also of theoretical interest because of the insight it offers into the long-standing debate over why state-owned firms perform poorly. The political view argues that governments pursue objectives in addition to and in conflict with profit maximization and that this political interference can distort the objectives and constraints faced by managers. Hence, only the transfer of management control to private owners is likely to address inefficiency in SOEs. The managerial view, based on agency theory, is that state-owned firms have difficulty monitoring managers because there is neither an individual owner with strong incentives to monitor managers nor a public share price to provide information on manager actions as judged by stock market participants.

Between 1991 and 1999, India sold minority equity stakes in 41 state-owned companies in domestic and international stock markets. Because management control was not transferred to private owners, it is widely contended that partial privatization has had little impact on the behavior of these firms. Using data on Indian SOEs, Gupta (2005) finds that partial privatization has a positive and highly significant impact on firm sales, profits, labor productivity, and investment. This is the first study to document the impact of partial privatization on the performance of firms.

Under partial privatization, the shares of Indian firms were traded on the stock market while the firms remained under government control and subject to political interference. Thus, Gupta (2005) uses data on partial privatization in India to test the managerial view that inadequate information on manager actions is an important factor in the inefficiency of state-owned firms.

The data in this study consist of accounting information on the population of nonfinancial firms owned by the federal (central) government of India, as well as some manufacturing and nonfinancial service sector firms owned by regional governments. All the partial privatizations undertaken by the federal government until 1999 are observed. The data include pre- and post-privatization performance of 41 firms partially privatized by the federal government up to 1999. These firms only sold noncontrolling shares to financial institutions, foreign institutional investors, and the public through open auctions, public

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offerings, and global depository receipts in domestic and international stock markets.

The paper uses several approaches to address the potential endogeneity of privatization including fixed effects and instrumental variable estimations. The estimations also control for reforms in competition policy. The results suggest that both the level and the growth rates of profitability, labor productivity, and investment spending improve significantly following partial privatization. In the firm fixed effects regression, a 10 percentage point decrease in government ownership increases annual (log) sales and profit by 13% and 10% respectively, and the average product of labor and returns to labor by 8% and 5% respectively. Investment spending on research and development and expenditures on fixed capital also rise significantly following an increase in the private ownership share of a firm's equity. Hence, these results are consistent with the hypothesis that stock price information and its effect on managerial incentives will improve with the liquidity of the stock.

Evidence suggests that the effect of privatization on firm performance is due in part to the role of new human capital. To further decompose the effect of partial privatization on managerial incentives, the paper uses data on turnover in senior management from 1990 to 2000 for all SOEs privatized through 2002. Results from the instrumental variable regressions suggest that by improving the information environment, partial privatization may improve managerial incentives and facilitate the selection of better managers.

PRIVATIZATION AND COMPETITION

There is a debate in the privatization literature on the relative importance of competition policy versus ownership change. Vickers and Yarrow (1991) have argued that competition can shape managerial incentives better because it reduces the market share of inefficient firms and facilitates performance comparisons. On the other hand, Shleifer and Vishny (1994) have argued that so long as politicians are in control, state-owned firms will be characterized by political interference. Evidence from India suggests that both privatization and competition matter for the operating performance of SOEs (Gupta, 2005).

The Industrial Policy Resolution of 1991, which outlined the economic reforms, argued for a major policy shift to encourage private entry in more industrial sectors. In the last decade, the government has deregulated

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the economy considerably by removing draconian licensing requirements that forced companies to obtain government approval for all investments, allowing foreign entry in some sectors without prior government approval, and opening up sectors that were previously reserved for SOEs to all investors. In India, these changes in competition policy appear to have reduced the market share and employment levels of SOEs on average (Gupta, 2005).

However, the evidence also suggests that the presence of SOEs may inhibit competition-enhancing reforms. Using a firm-level dataset from India, Chari and Gupta (2006) investigate the role of incumbent firms in the government's decision to remove entry barriers to foreign investment in some industries and not others. Their results suggest that the government was significantly less likely to deregulate foreign entry in concentrated industries and in industries with SOEs. In particular, the government appears to be protecting industries with profitable and capital-intensive SOEs. Furthermore, these are not just industries that can be classified as natural monopolies or of strategic national interest. In contrast to the protection offered to SOEs, Indian business groups do not appear to have had much influence on this deregulation measure.

The recent shift in policy where the government has ruled out privatizations of large, profitable firms in infrastructure sectors raises questions about the future of private investment in these sectors. One implication of Chari and Gupta's (2006) results is that the presence of profitable SOEs may inhibit private entry in these sectors.

PRIVATIZATION IN OTHER SOUTH ASIAN ECONOMIES

Data from "Global Development Finance 2001" (World Bank, 2001b) for the years 1990–1999 and from the World Bank Privatization Database, which notes transactions undertaken since 2000, indicate that the region as a whole raised nearly US\$24 billion from privatization sales between the years 1990 and 2005. Of this amount, Bangladesh contributed US\$123 million, Sri Lanka US\$878 million, and Pakistan accounted for US\$7.4 billion in privatization sales. In contrast, the Latin America and Caribbean region raised over US\$197 billion from privatization sales during the same period (World Bank, 2001b; World Bank Privatization Database).

While progress has been slow, there have been some important developments in recent years. Recognizing the political barriers to the sale of SOEs, Pakistan, Bangladesh, and Sri Lanka have all created government

agencies to implement privatization transactions. While previously these agencies had only advisory capacity, they now have greater discretion to implement privatization. Pakistan has passed a privatization law to ensure transparency in the transactions, while India has created a cabinet-level ministerial position to oversee privatizations. This has helped speed up the process considerably.

Second, while these countries started by selling minor manufacturing firms in the early 1990s, the focus has shifted to infrastructure with the sale of banking, energy, and telecommunications firms in Pakistan and other nations in the region. Between 1989 and 1999, Pakistan privatized six banking/financial sector firms—nearly 80% of its privatization revenues are from the sale of firms in banking, capital markets, energy, and telecommunications sectors (Privatisation Commission, Government of Pakistan). Sri Lanka has also made considerable progress in implementing privatization. It has sold majority stakes of SOEs in infrastructure, manufacturing, and agribusiness sectors, with several sales to foreign buyers.

There is not much evidence on the effects of privatization in these economies. Below we describe the main results of two studies on privatization in Bangladesh.

PRIVATIZATION IN BANGLADESH

Bhaskar and Khan (1995) make an interesting contribution to the literature by investigating the patterns of overemployment and the effect of privatization on the performance of state-owned jute mills in Bangladesh. Jute is the principal export industry in Bangladesh, and in 1982 the government privatized 31 of 62 state-owned mills. Bhaskar and Khan argue that mills were not chosen for privatization on the basis of financial performance, but instead mills that were owned by West Pakistanis prior to their nationalization were privatized. Jute mills that had been owned by Bangladeshi owners before they were nationalized were restituted to their former owners. Thus, they treat privatization as exogenous to firm performance in their data. The control group in their data consists of the mills that remained under government ownership.

Bhaskar and Khan (1995) observe managerial, clerical, and manual employment at the mill level for the years 1983–1988 and annual output for 1981–1982 and 1984–1985. Data on the types of workers allow them to differentiate between two theories on surplus employment in the

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public sector. Welfarist criteria would dictate that in an economy with high unemployment, the shadow price of labor is less than the wage rate; hence a welfare-maximizing firm would hire beyond the point where marginal revenue equals marginal cost. The clientelist argument is that public sector firms are used by politicians to dole out jobs. The difference between the two should arise in the pattern of surplus employment. While the welfare-maximizing firm would prefer to increase the number of manual workers because the marginal cost is lower and their opportunities are more limited, a clientelist firm is more likely to generate greater employment of white-collar workers because the middle class is likely to have more political clout. Similar differences may arise in the relative employment of permanent versus temporary manual workers. Political reasons may not provide the only explanation for overemployment of managerial staff. Public sector managers may be complicit in creating more white-collar jobs to cater to their socioeconomic class.

Bhaskar and Khan (1995) find compelling evidence in favor of the clientelist argument that excess employment in the public sector is far greater in the white-collar category. Results from difference-in-difference estimations suggest that privatization has a negative impact on white-collar employment (clerical and managerial) and on the employment of permanent manual workers. Manual worker employment does not decrease significantly overall because of a shift toward temporary manual workers. Pooled regression estimates show that white-collar positions decline by 32%, permanent manual by 7%, while temporary manual undergoes a 24% increase.

In a related study, Bhaskar, Gupta, and Khan (2002) use the example of jute privatization to investigate yardstick competition, or the effect of privatization of some mills on the remaining SOEs. They observe aggregate employment data in public and private jute mills for the same categories of workers as in Bhaskar and Khan (1995). Univariate tests suggest that white-collar employment in state-owned mills followed that of the privatized mills with a lag but did not decline as much as output. Manual employment decreased in the same proportion as output. Thus, some excess employment in white-collar categories remained, but less than before. The authors suggest that public sector jute mills are gradually converging in their employment patterns to the privatized mills, indicating that yardstick competition may be useful in reducing public sector inefficiency.

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IMPACT OF PRIVATIZATION ON EMPLOYMENT

State-owned enterprises were expected to fulfill a multitude of social objectives both for their workers by providing health care, education, and shelter and for the economy at large with price regulation. While the conventional wisdom is that privatization will lead to massive layoffs, the evidence does not appear to support this view in South Asia. This is possibly due to highly restrictive labor laws that govern layoffs and compensation. The social role of SOEs, at least in India, may be exaggerated given that the total number of workers employed by federal government-owned firms is about 1.7 million, or 0.56% of the total workforce (Department of Disinvestment, 2001). According to some estimates, 90% of India's manufacturing workforce is employed in the unorganized sector and not even represented by unions. Hence, potential layoffs are not likely to affect a large proportion of the workforce.

The adverse impact of layoffs may be reduced through compensation and training programs. A recent survey suggests, however, that retrenchment programs for SOE workers have had mixed success in terms of economic benefits. In South Asian economies, separation pay for workers appears to be overly generous and may not yield a net economic benefit. Moreover, economies in this region overwhelmingly favor voluntary separations rather than involuntary layoffs, which may give rise to adverse selection problems. The terms of these retrenchment programs clearly reflect the political clout of SOE labor unions, but they may be the only way to overcome opposition from this influential group.

Haltiwanger and Singh (1999) survey and compile data on the costs and benefits of SOE employment retrenchment programs in 37 developing and transition economies. In particular, they describe the factors leading to retrenchment, the type and amount of retrenchment, and the methods used. The survey yields several interesting variations in the retrenchment methods and costs across countries. For example, in the 1990s Eastern European SOEs reduced workforce size by 2.85 million workers, while Asian SOEs reduced employment by just 233,111 workers. Further, while 31% of the retrenchment in Europe was through involuntary layoffs, none of the retrenchment in the Asian economies was involuntary. The authors estimate that the total worldwide cost of retrenchment programs exceeded US\$12 billion, of which US\$1.4 billion was accounted for by the Asian economies. The compensation included a mix of severance payments, higher pensions, and retraining and job assistance. While the

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transition economies in Eastern Europe spent much more on pensions and worker assistance, 92 percent of retrenchment costs in Asian economies were accounted for by severance payments.

Following the balance of payments crisis in 1991, a program to reduce SOE employment for chronically loss-making enterprises in India was put in place. A voluntary retrenchment program in loss-making textile firms led to a reduction in the workforce by 70,000 workers between 1993 and 1994. Haltiwanger and Singh (1999) estimate that the average cost per worker of this program was about US\$17,000. The compensation formula was 30 days of wages for each year worked compared to the legally required amount of 15 days of wages for each year of permanent service. While this program cost US\$1.8 billion, the amount saved in wages was US\$83 million (Haltiwanger and Singh, 1999).

Investigating the privatization of jute mills in Bangladesh, Bhaskar and Khan (1995) and Bhaskar, Gupta, and Khan (2002) show that retrenchment of workers is likely to impact the managerial class more than the manual workers because the former is characterized by greater surplus employment. However, their results also suggest that white-collar workers have more influence on the government and authority within the firm. Haltiwanger and Singh (1999) describe a program for Bangladesh jute workers that reduced workforce size by 22,250 workers, of which 1,000 were involuntary separations. The program cost US\$56 million while saving US\$18 million in wages. Under a program undertaken between 1991 and 1993, Pakistan SOEs retrenched 7,495 workers, all through voluntary separations. This program cost US\$25 million but saved the government US\$350 million because of the value of the real estate released by departing workers.

In the last decade, the Indian government has reduced barriers to entry in most industrial sectors. These measures have contributed to the rapid increase in private investment and to significantly higher rates of economic growth. Other economies in the region have also made significant progress in privatization. However, SOEs remain a significant drain on public finances throughout the region. Privatizing SOEs could attract foreign investment, increase domestic investment, develop financial markets, and release scarce public funds for other uses, such as investment in infrastructure. But these benefits are dispersed across the population, whereas the costs are concentrated among an influential group of politicians, bureaucrats, and workers. Along with political factors, other

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constraints such as underdeveloped financial markets, which have led to problems associated with asset valuation and methods of sale, have also contributed to the slow pace of privatization.

Looking forward, one of the major remaining issues is the privatization of infrastructure industries. The key infrastructure sectors are electricity, telecommunications, and transportation. A Morgan Stanley report estimates that in 2003 India's infrastructure spending was US\$35 billion compared with US\$325 billion for China (Ahya and Sheth, 2005). This report argues for an increase in annual investment of at least US\$10–\$15 billion.

In India, most of the power generation and distribution companies are owned by regional state governments. The Government of Orissa was the first to privatize its electricity generation and distribution facilities through a strategic asset sale. The state government sold 49 % of Orissa Power Generation Corporation to the AES Corporation of the United States in 1998, and 51% of equity shares of its four distribution companies to private companies between 1999 and 2000. Recognizing the need for power sector reform, seven other states have initiated reforms, and the state of Delhi has also privatized its electricity distribution facilities. As in Orissa, most of these states have adopted the approach of unbundling the generation, transmission, and distribution facilities. However, none of the electricity distribution companies in Orissa have posted a profit in the years since privatization. The main reason for this has to do with the regulatory framework. In Orissa, a separate regulatory body sets electricity prices, which the distribution companies claim are not high enough to cover their transmission and distribution costs. The government has been unwilling to raise prices because that would be politically costly. The government has also not been willing to subsidize the newly privatized companies in the transition period. Clearly, the main challenge facing other states seeking to attract private investment is to design a proper regulatory framework.

In the telecommunications sector, the Indian government has followed a two-pronged approach. First, it allowed private entry into telecommunications, ending the monopoly of SOEs. Second, it privatized the nation's international long-distance provider. Prior to the reforms undertaken by the government, the telecommunications sector was restricted to two state-run monopolies. In contrast to power, the telecommunications sector has experienced significant growth. For example, while in 2002 the percentage of the population with access to a telephone was 0.6% (*The Economic Times*, 2002), this number had increased to

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about 9.5% by 2005 (India Infoline, 2005), primarily due to the growth of mobile telephone services. The experience with this sector indicates that privatization is necessary to encourage further private investments in infrastructure.

In summary, privatization of infrastructure sectors remains the key challenge confronting the economies of South Asia. Infrastructure privatization is likely to differ from that of manufacturing because of the need for regulatory oversight. The evidence also suggests that to increase private participation, the government needs to pursue both privatization and competition policy reforms in these sectors.

NOTE

1. Between 1991 and 1999, the average rupee-to-dollar exchange rate was 32 to 1, ranging from Rs.18 to US\$1 in 1991 to Rs.42 to US\$1 in 1999.

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