In all countries—developing and developed, market and socialist—governments are showing increasing concern over the performance of their state-owned enterprises (SOEs). One reason is that SOEs make large and growing claims on the budget. In a sample of twenty-seven developing countries in 1976–79, the net budgetary payment to nonfinancial SOEs averaged more than 3 percent of GDP. Current spending alone—subsidies and other transfers—represented 1.4 percent of GDP. State enterprises are also important foreign borrowers; nonfinancial SOEs accounted for 28 percent of all Eurocurrency borrowing by developing countries in 1980.

Governments, intent on curbing SOE borrowing and getting value for the money they spend, are searching for ways to improve SOE efficiency. In theory, efficiency is highest when an enterprise strives to maximize profits in a competitive market, under managers with the autonomy, motivation, and capability to respond to the challenge of competition. Inefficient enterprises would not be able to compete and would go bankrupt. But SOEs seldom face such conditions. Governments may have established SOEs for reasons quite different from—and often incompatible with—profit maximization. SOEs often operate in noncompetitive markets; the absence of competition is one reason for creating them. Their autonomy is often compromised by government intervention in their operating decisions. Managers may not be held accountable for results or given incentives to improve performance. The way they are selected and rewarded often encourages qualities more appropriate to a central bureaucracy than to a competitive enterprise. Even nonviable SOEs are seldom liquidated.

These special constraints on SOEs need not become an excuse for poor performance. Efficiency can be greatly enhanced by setting clear and attainable objectives, reducing undue interference, holding management accountable for results, designing a framework of incentives, and developing a team of managers with appropriate skills. These are the main topics of this chapter, which ends with a review of the issues involved in liquidating and privatizing SOEs.

The growing fiscal burden

Accounting deficiencies and different ways of classifying SOEs make it difficult to generalize about their financial performance or to assess the return to capital. Available data for SOEs in twenty-four developing countries showed a small operating surplus before depreciation in 1977. However, no account was taken of interest payments, subsidized input prices, taxes, or accumulated arrears. Proper provision for these items and depreciation would show SOEs in many of these countries to be in deficit.

Since SOEs often control some of the largest revenue-earning activities (petroleum and mining, for example), their poor aggregate performance is especially disturbing. Evidence from individual countries indicates low and declining profitability. For example, Turkish public enterprises, which were breaking even in the early 1970s, averaged net losses equivalent to 3.9 percent of GDP during 1977–79. Subsequent policy measures resulted in a profit of 0.1 percent of GDP in 1981 and an estimated 0.5 percent in 1982. Mexican SOEs (excluding the state petroleum company), which earned profits equivalent to 0.3 percent of GDP in 1970, showed a net loss of 1.2 percent of GDP in 1980. Senegal’s SOEs, which had been in surplus in the mid-1970s, recorded a deficit in 1977–78 and again in 1979–80, and the number of money-losing companies reached forty-two (out of sixty-eight in 1980). The picture is not entirely black; in India, for example, the gross pretax return on capital employed grew from 7.8 percent (before interest payments) in 1980–81 to 12.2 percent in 1981–82. Low profitability limits the ability of SOEs to self-finance their investments, increasing their dependence on central government resources. Figure
FIGURE 8.1
Net claims on the budget of nonfinancial state-owned enterprises

<table>
<thead>
<tr>
<th>Country</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>1978-80</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>1972-73, 1978-79</td>
</tr>
<tr>
<td>India</td>
<td>1981-82, 1966-69</td>
</tr>
<tr>
<td>Korea, Rep. of</td>
<td>1978-80</td>
</tr>
<tr>
<td>Malawi</td>
<td>1967-69, 1978</td>
</tr>
<tr>
<td>Panama</td>
<td>1970-73, 1978-79</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>1966-69, 1977</td>
</tr>
<tr>
<td>Tanzania</td>
<td>1966-69</td>
</tr>
<tr>
<td>Tunisia</td>
<td>1968-69, 1978-81</td>
</tr>
<tr>
<td>Turkey</td>
<td>1966-69, 1978-79</td>
</tr>
<tr>
<td>Zambia</td>
<td>1966-69, 1978-80</td>
</tr>
</tbody>
</table>

The length of the bars indicates government subsidies, transfers, and net lending to nonfinancial SOEs, less SOE dividends and interest payments to government, as a percentage of GDP at market prices.

a. Major enterprises only.
Sources: World Bank; Peter Short (1983).

8.1 shows how the net claims on the budget have grown for a sample of twelve developing countries. These figures include legitimate and desirable equity investments by government, of course, but they also reflect the limited ability of SOEs to generate internal resources.

In an aggregate analysis it is impossible to determine the extent to which these results reflect general economic conditions or price controls and how much they are caused by a failure to minimize costs or maximize productivity. Evidence from individual enterprises indicates substantial room for efficiency gains. A modest improvement in efficiency could have significant effect. For example, a 5 percent increase in SOE revenues plus a 5 percent drop in costs would generate resources amounting to:

- Almost 2 percent of GDP in Turkey, or 10 percent of tax revenues
- Some 1.5 percent of GDP in Tanzania, enough to finance all its spending on health
- As much as 2.2 percent of GDP in Mali—roughly two-thirds of expenditure on education or twice that on health
- Some 1.4 percent of GDP in Bolivia—14 percent of tax revenue or one and a half times the spending on health

The nature of SOEs

The term "state-owned enterprise" covers all state-owned industrial and commercial firms, mines, utilities, and transport companies, as well as financial intermediaries. The number of SOEs has been on the rise in most countries. Figure 8.2 shows the increase in a sample of eight countries. SOEs are distinguished from the rest of the government because their revenue comes from the sale of goods and services and because they are self-accounting and have a separate legal identity. Beyond that, their circumstances and characteristics may appear to vary widely. A state enterprise might be op-
erating in a command economy surrounded by other SOEs, or it may be one of a handful of state firms in a predominantly free market.

In practice, however, SOEs share many qualities. Most economies are a mixture of markets and central controls, and whatever the mixture, the problems of trying to ensure SOE efficiency are strikingly similar. Conflicting objectives, insufficient SOE autonomy, inadequate measures for judging performance, lack of incentives linked to performance, and bureaucratic rather than commercial management styles—all these have prompted attempts at reform in socialist and market economies alike. When such reforms fail, the consequences are also similar. Every economy finds that financial weaknesses in SOEs are transmitted to other public and private firms. They suffer if SOEs command financial resources to which others might ordinarily be entitled, or if they fail to supply promised goods or services.

Increased SOE efficiency typically requires internal improvements—better financial management, more careful inventory control, and a balanced production line, for example. But these reforms will not solve the wider problems of relations between SOEs and government. This chapter will concentrate on these common problems of SOEs and suggest ways of tackling them. Of course, suggestions have to be tailored to the characteristics of individual firms and countries. A government’s approach toward a manufacturing SOE selling in competitive export markets will differ from its treatment of a large, natural monopoly. The former might be required to maximize profits; the latter’s prices might be set according to its marginal cost or it might be required to minimize costs. Similarly, the options of countries will vary. In some countries it might be possible to fire poor SOE managers and replace them with better ones. A country with less managerial talent might have no alternative but to try and improve the skills of its less capable managers.

Defining objectives

One of the most important and difficult tasks for governments is to clarify and rank the objectives of their SOEs. Where state enterprises are expected to pursue both commercial and social goals and to answer to many different constituencies, their performance will suffer unless they are given a clear sense of priorities. Without that, their results cannot be measured against expectations, while losses can be too easily attributed to social goals, and poor management thereby concealed.

The cost of noneconomic goals

SOEs are frequently expected to contribute to the broader goals of government policy. The consequences can be perverse, as illustrated by the experience of the Ghana Cocoa Marketing Board (see Box 8.1). For instance, SOE prices may be controlled in order to benefit the poor or to assist counterinflationary policies. But SOE consumers are often large industrial users or wealthy people, so they—not the poor—benefit most. For instance, energy and food subsidies in Egypt in 1979 amounted to more than $4 billion; three-quarters of the subsidies went to the relatively more affluent urban areas and 62 percent of these went to the richer half of the urban population. Furthermore, the costs of subsidies are shifted from the consumer to the taxpayer or, if the deficit is financed through inflationary monetary expansion, to the public at large. Given the regressive nature of taxes in many developing countries and the impact of inflation on the poor, the net result may be to increase income inequalities.
The profits of an SOE could then be invested to enterprise operate on commercial, profit-seeking lines. But a strong case can be made for letting an explicit and by calculating their costs and benefits. gain (or loss) to society only by making these goals expected of SOEs, a government can judge the net performance. Experience in Ghana illustrates what can happen when one conflicting objective becomes dominant.

The Ghana Cocoa Marketing Board (CMB) was established in 1947, following pressures from farmers to eliminate middlemen and traders. Initially CMB’s stated objective was to market and export cocoa and to stimulate the activities of smallholders. After ten years of operation, however, CMB’s governing legislation had been amended by two other objectives: to protect farmers from extreme fluctuations in world prices and to tax export earnings. The revenue objective finally prevailed over the other goals. Producer prices were initially set to cover the board’s development and operating costs and to allow it to accumulate reserves. However, the need for government revenues soon predominated: after 1965, the board was no longer permitted to hold reserves. The government’s share of sales revenues increased from 3 percent in 1947–48 to almost 30 percent after 1953–54 and reached 60 percent in 1978–79. CMB’s share of revenues was set to cover operating costs and rarely exceeded 20 percent; farmers’ earnings became a residual.

As a result of this policy and of the overvalued exchange rate, the price received by Ghanian cocoa farmers has been declining in real terms since the early 1960s. By 1979 producer prices averaged about half their 1963 level, even after taking account of subsidies on seeds and other inputs. Furthermore, the CMB was unable to protect farmers from sharp price fluctuations. The prices they were paid fell by 30 percent in 1949–50, by 17 percent in 1959–60, and by 34 percent in 1965–66.

As cocoa has become less profitable, Ghana’s production has plummeted—from a peak of about 540,000 tons in 1965 to about 250,000 tons in 1979. The volume of exports has fallen by almost 80 percent over the same period. An estimated 45,000 tons a year has been smuggled to neighboring countries, a foreign exchange loss equivalent to about 15 percent of the average value of Ghana’s exports in 1974–78. By 1979 Ghana had lost its rank as first world producer and exporter of cocoa, which it had held since the early 1960s. Many farmers have switched to other crops, such as maize and rice, which in Ghana yield a net return per hectare about twice that of cocoa. But this switching still involves heavy losses for the country. If farmers were to receive even half the world price for cocoa and no input subsidies, their net return per hectare (at 1979 prices) would be more than seven times that of rice and more than fifty times that of maize.

Similarly, SOEs are often used to expand employment. The excessive wage bills that result can seriously damage an SOE’s financial performance while overmanning can be bad for morale. Since SOEs are usually capital-intensive, they can make only a limited contribution to alleviating unemployment. In a survey of seventeen developing countries in 1982, nonfinancial SOEs were responsible for less than 15 percent of modern sector employment, ranging from a low of 5.5 percent in Latin America to a high of 20.4 percent in Africa.

Where noncommercial achievements are expected of SOEs, a government can judge the net gain (or loss) to society only by making these goals explicit and by calculating their costs and benefits. But a strong case can be made for letting an enterprise operate on commercial, profit-seeking lines, and then using its profits to achieve social goals. The profits of an SOE could then be invested to generate new growth and jobs, rather than siphoned into paying the wages of redundant workers. A commercially oriented SOE can be a most effective tool for improving social welfare, as exemplified by the experience of the Kenya Tea Development Authority (KTDA—see Box 8.2).

**Setting objectives**

In practice it is hard to define targets for SOEs by an assessment of costs and benefits. Often there are strong political motives for keeping objectives fuzzy and not analyzing trade-offs. But since non-economic goals are frequently given as a reason for poor performance, governments should at least view this excuse with skepticism and require SOE managers to document the financial effects of having to meet such goals.

Some governments have gone further. France and Senegal, for example, have negotiated formal agreements with SOEs to establish a clearer operating framework (see Box 8.3). Under such arrangements, governments pledge to meet their financial obligations and to eschew ad hoc interference; for their part, SOEs accept negotiated performance targets. The agreements help both parties to translate vague intentions into specific tasks. Contracts also make the costs of achieving objectives more transparent, thus allowing a more rational consideration of costs and benefits. Their success rests on substantial political commitment—as well as a readiness of both parties to
Control without interference

SOE autonomy needs to be counterbalanced by some central control. Unless governments monitor the performance of their SOEs and make the main decisions on investment and debt, their macro-economic management will be undermined, as Brazil's experience has demonstrated (see Box 8.4). Yet central control can itself be poorly organized. All too often, different official agencies intervene in SOE decisions that should be the prerogative of management, and yet government fails to coordinate their action. Too much interference can be combined with too little control. In addition, policy that swings between autonomy and central control can prevent coherent direction of SOEs. The challenge is to design a system that holds management accountable for results while giving it the power to achieve them.

Institutional links between government and enterprise

To try and reduce arbitrary intervention by government, countries have devised institutional arrangements that place government at arms' length from SOEs. Boards of directors or holding companies have been widely used to create a buffer between SOE management and the central bureaucracy, to provide policy direction, and to report on results. Special bureaus, commissions, and ministries have become a popular way of centralizing information and control of SOEs.

These arrangements have a mixed record, showing that institutional changes alone rarely achieve a satisfactory balance between independence and control. Furthermore, arrangements that work well for one country or enterprise may not do so elsewhere. For example, the successful Ethiopian Telecommunications Authority has a politically oriented board of directors dominated by a minister (see Box 8.5)—an arrangement that has proved disastrous in other countries.

Box 8.2 Autonomy, accountability, and incentives: KTDA

The Kenya Tea Development Authority (KTDA) was created as a state-owned enterprise in the early 1960s. It has organized the planting of about 54,000 hectares of tea by some 138,000 smallholders, and has become a major processor and the world's largest exporter of black tea. Thanks to its commercial orientation, KTDA developed an industry that substantially benefits the 1 million members of tea-grower households plus untold numbers of laborers, traders, and others in the economically vibrant tea districts. KTDA achieved these results without operating subsidies, in marked contrast to the generally poor results of smallholder tea schemes in South Asia or elsewhere in East Africa. Its success has had three ingredients:

1. Autonomy. KTDA was set up to be a commercial enterprise and was not given many secondary social responsibilities. It has never been financially dependent on the government. Its start-up and development costs were financed largely by external borrowing. Its operating costs are covered by a flat-rate levy deducted from the monthly "first payment" to farmers. (Growers receive a fixed payment per kilogram every month and a second payment based on market prices at the end of each season.) Although the levy has not changed for the past ten years, KTDA has avoided government subsidies by keeping down costs. Good performance and support from growers helped secure independence. From the outset KTDA had control over all strategic aspects of tea production: credit, extension, propagation, transport, processing, and marketing. With such authority KTDA could tightly control the quality of the tea—often a weakness of smallholder production. KTDA has also moved into factory operations and thus controlled the quality of processed tea.

2. Accountability. Since KTDA's objectives were clearly defined, the government was able to develop a set of standards against which its performance could be evaluated. Through its representative on the board, the government holds KTDA responsible for results. Added to this, the tea growers sit on district tea committees and are represented on KTDA's board. Some are also shareholders in KTDA factories or members of factory boards. The growers play an important role since they have strong personal incentives to hold the Authority to high standards. Similarly, KTDA's factory managers, workers, and field staff are held accountable for results by their supervisors; their performance is monitored and evaluated against predetermined standards.

3. Incentives. The basic set of incentives for both growers and KTDA is provided by world market prices. KTDA has not tried to insulate itself from that market by building up large reserves (or running deficits). Sustained market pressure is thus used to enhance the drive for premium tea production by demonstrating the direct link between quality and returns.

In recent years KTDA has become vulnerable to the falling trend in world tea prices. Its finances have also been threatened by a drop in output because of drought and some shift by growers to higher-income crops. Furthermore, KTDA is moving from a phase of rapid expansion to one of consolidating its gains, a transition that has been difficult for both public and private enterprises throughout the world.

KTDA has also moved into factory operations and thus controlled the quality of processed tea.

Incentives. The basic set of incentives for both growers and KTDA is provided by world market prices. KTDA has not tried to insulate itself from that market by building up large reserves (or running deficits). Sustained market pressure is thus used to enhance the drive for premium tea production by demonstrating the direct link between quality and returns.

In recent years KTDA has become vulnerable to the falling trend in world tea prices. Its finances have also been threatened by a drop in output because of drought and some shift by growers to higher-income crops. Furthermore, KTDA is moving from a phase of rapid expansion to one of consolidating its gains, a transition that has been difficult for both public and private enterprises throughout the world.
To avoid such direct political control, many countries rely on holding companies. Some have proved a useful way of achieving government aims while giving SOEs greater discretion in day-to-day operational matters; others have become counterproductive, substituting one form of ex-ante bureaucratic intervention for another. An added drawback of introducing an extra layer of bureaucracy is that it also uses scarce managerial resources.

On the positive side, the Istituto per la Ricerca e l'Industria (IRI) in Italy has been credited with cooperating with government to achieve its social goals while freeing the individual enterprises to pursue profits. Nevertheless, IRI has been caught between conflicting government aims—such as the directive to make profits and yet support failing subsidiaries to bolster employment. Holding companies can also provide technical assistance and managerial talent. Portugal’s holding

Box 8.3 Contracts between the state and its enterprises: the experience of France and Senegal

France

The concept of contracts for state enterprises was first introduced in France in the late 1960s to increase both the autonomy and accountability of SOE managers. Initially only two contracts between government and SOEs were signed; four more were added in 1979, and in 1981 the new government announced its intention to negotiate more contracts with the expanded state enterprise sector. By early 1983, eight contracts had been signed and more were being negotiated.

The French experience has been mixed. The first two contracts were overtaken by the 1973 oil shock and subsequent stagflation, although they contained procedures for revisions, these were not adequate to cope with the unprecedented conditions of the mid-1970s. A serious deficiency of the agreements was their failure to specify remedies for non-performance. The contract with the electricity company provided that the state could suspend the contract if the results were not achieved, but adjustment rather than suspension is often the more appropriate response. The plans were also weakened or opposed by the bureaucracy, which disliked the degree of pricing freedom which contracts would have given SOEs.

Despite these shortcomings, the contracts have helped clarify relations between the state and SOEs. They allowed the implications of government’s pricing and subsidy policy to be discussed. The medium-term focus of the contracts (most covered three to five years) required the government to be more consistent in its policies, particularly in the annual discussions of the enterprises’ investment programs. Furthermore, the contracts made the company’s results more transparent, by distinguishing between normal operations and social objectives. For example, the railway’s contract specified that the company be compensated for losses on passenger lines that it was not allowed to close. Similarly, Air France was compensated for having to operate the Caravelle Ills and to split operations between two Paris airports.

Senegal

The Senegalese government has negotiated contract plans with five SOEs since 1980, and is in the process of negotiating five more. Although it is too early to draw any firm conclusions, initial results are promising and suggest some lessons for other developing countries.

The preparation of the three-year plans helped in strategic planning for the SOEs. It forced them to identify the sources of their operating deficits, and to articulate medium-term operating and investment goals. Thus, for the first time Air Senegal and the Dakar bus company (SOTRAC) calculated losses per passenger-kilometer on certain services that the government obliged them to operate.

The contracts allowed the government to compare more systematically the cost of social objectives and investment proposals with their benefits. As a result, loss-making air services to certain remote areas were cut back. The government also reconsidered a costly investment in passenger rail equipment after the railway’s plan presented a thorough quantification of its long-term implications for the company’s debt service and operating revenues. Ultimately, senior ministers decided to concentrate new investment on freight, rather than passenger, traffic. The government also adopted formulas for regular tariff adjustments linked to increases in the cost of inputs (especially fuel) for most enterprises. It agreed to place limits on staff numbers to protect enterprises from pressures to take on excess or ill-qualified personnel.

Most of the contracts have produced measurable improvements in SOE performance. SOTRAC has been guaranteed regular tariff increases, quarterly payment of a specific subsidy for money-losing suburban services, and financial support for more buses and a second maintenance terminal. For its part, the company has set strict targets for worker productivity, maintenance, and more efficient fleet utilization—targets which, so far, it has met. Improvements in cash flow alone enabled SOTRAC to eliminate its bank overdraft and 30 percent of its arrears to suppliers in the first year of the contract. The one contract that seems to have failed did so because of the magnitude of the restructuring required to reduce the company’s substantial operating deficit.

Initially, the effect of the contracts on the budget and investment program was not adequately assessed. Nor was provision made for monitoring performance with agreed sanctions in the case of non-compliance. The Senegalese government is taking steps to remedy this, including six-month joint reviews of contract execution.
company, Instituto dos Participacoes do Estado (IPE), for instance, helps subsidiaries negotiate credits if they also agree to undertake reforms. IPE also recruits experts to assist its subsidiaries in improving corporate planning or management information systems. It also provides training and finances outside studies.

Such merits need to be set against less favorable experiences elsewhere. Pakistan, for example, created a Board of Industrial Management (BIM) in 1973 to direct twelve corporations (with about fifty production units) on the model of Italy's IRI. The reports of two government commissions found that BIM had drastically reduced the production units' operating autonomy and weakened managerial authority. It was therefore abolished in 1978.
A different approach to decentralizing has been tried in several Eastern European countries (East Germany, Bulgaria, Poland, and Romania), where a new administrative level has been put between the ministry and the enterprise. Here again, experience shows that structural changes by themselves are not enough to alter the underlying balance of power. The centrale in Romania, for example, were created in 1968 and given certain minor powers over enterprise investments, borrowing, input supply, and marketing. But the ministries continued to intervene directly both in the enterprises and in the day-to-day operations of the centrale.

Some countries have centralized control in government bureaus or specialized ministries. India, for example, created the Bureau of Public Enterprises (BPE) as part of the Ministry of Finance in 1965. In 1979 Brazil set up the Secretariat for the Control of State Enterprises, and in Pakistan the Ministry of Production controls all state-owned manufacturing enterprises. These bodies are responsible for setting performance standards (or expenditure limits in the case of Brazil), evaluating results, and approving debt and investments. The BPE collects and analyzes data on India's SOEs and in 1982 set performance targets with the enterprise managers. It also gives technical assistance and training, does special studies, and provides guidelines in such areas as wage settlements. Central bodies thus obtain valuable information on SOEs, a prerequisite for effectively assessing and controlling performance. However, sometimes they become involved in unnecessary detail; one such body has set standards for factory perimeter fencing. Central bodies can play a vital role in monitoring performance or they can become an annoying bottleneck obsessed with trivia. Their role depends largely on whether a government is concerned with short-term goals, such as implementing austerity programs or curbing SOE abuses, or with the long-run process of changing relations between SOEs and government.

**Holding managers accountable for results**

There are strong arguments for creating conditions in which SOEs can be instructed to maximize profits and then be judged by that standard. Profit is a composite indicator that applies positive weights (prices) to benefits (outputs) and negative weights to costs (inputs). If the weights are correct, a profit-maximizing firm strives to achieve maximum benefits for minimum costs—the definition of efficiency. For SOEs, this criterion needs modifying for four reasons: many SOEs are monopolies; the profit relevant for society is different from private profits; many SOE objectives conflict with profit maximization; and market prices may be distorted.

These qualifications need not negate the use of profits as a guide to performance.

- **Monopoly.** The best way to end monopoly power is to introduce competition. Where that is not possible, the prices of a monopoly SOE can be set according to its marginal costs (see discussion in Chapter 6); the SOE can then be instructed to maximize profits. If that produces unacceptably high prices, the enterprise can still be required to minimize costs. Although adjusting administered prices typically involves practical and political problems, the long-run benefits can be substantial.

- **Accounting for public profits.** Some items (such as interest payments) can be excluded from public profits so as not to encourage SOE managers to waste time on, for example, interest arbitrage, which may be deemed irrelevant to their tasks. Targets can also be set for activities such as investment, maintenance, and research, which might not be compatible with short-run profit maximization or cost minimization.

- **Conflicting goals.** If the SOE is required to perform noncommercial roles that reduce its profits (such as hiring extra staff to increase employment or setting up a plant in a particular area to promote regional development), the government can reimburse it for the extra costs or reduce its profit target accordingly. Careful calculation is needed of the cost of noncommercial goals: if the subsidy is too high, the incentive for the company to improve its efficiency is reduced.

- **Distorted prices.** These can be rectified by using shadow prices for assessing SOE results. Shadow prices are calculated to reflect the opportunity costs of an enterprise's inputs and outputs. For example, the price of imported fuel may be held down by a government subsidy, but SOE accounting should value it according to its world price to ensure it is used efficiently.

The results derived from shadow-price accounting can differ widely from conventional profits and losses, as one study of SOEs in Egypt demonstrated. In almost all twenty-seven industries sampled, the financial rate of return calculated on the basis of extensively controlled market prices pointed in opposite directions from the economic rates of return based on shadow prices. Industries producing oils, soaps, and detergents showed a 14.4 percent economic rate of return, yet financial profitability was negative; nonferrous metals earned a
Box 8.6 Performance evaluation in Pakistan

Pakistan's performance evaluation system, launched in 1981, uses "public profitability" as an indicator of performance. "Public profits" are private profits adjusted for those elements not deemed relevant to an SOE. For example, taxes and interest, which are private costs but public benefits, are excluded as not to encourage SOE managers to devote time to minimizing taxes or to interest arbitrage. Rather, public profitability aims to encourage managers to maximize net economic benefits, judged from a national perspective. Costs of noncommercial objectives (such as the extra cost of purchasing from local suppliers to encourage domestic industry) are deducted before profits are calculated and treated as an "in-kind" dividend to the government.

Since many prices are administered and there are problems of monopoly pricing, market prices may not reflect true economic scarcity. Since SOE managers generally cannot affect prices, it would be unfair to reward or penalize them for the effects of changing prices on profitability. The ideal solution would be to eliminate the divergence between market prices and real economic costs. Where that is not feasible, a second-best remedy is to use shadow prices that reflect true economic costs. Shadow prices, however, are complex and controversial to administer. Pakistan is therefore judging its SOE managers, for control purposes only, by trends in public profit at constant prices, that is, constructing a quantum index of profits based on quantum indices of inputs and outputs. This is an acceptable approximation of efficiency in performance evaluation (though not in project evaluation), since it is concerned with the trend rather than the level of performance. All enterprises will be judged on the basis of their return to fixed operating assets, or public profitability in constant terms. The performance of any individual firm will be compared with its record over the past five years, to make allowance for the fact that some enterprises operate under greater handicaps than others.

Used in isolation, public profitability would encourage managers to ignore activities with current costs but future benefits (such as planning, maintenance, training, or innovation). Government and SOEs will therefore negotiate extra targets for these areas, assigning them weights that vary over time and from one company to another. A firm will first have to show that it can use existing resources efficiently; hence, 90 percent of its initial target may be assigned to public profitability.

At the end of the year the performance of each SOE will then be rated according to how close it came to meeting its composite target. The monitoring and evaluation will be done by the Experts Advisory Cell, a semi-autonomous agency responsible to the Ministry of Production but financed by a levy on the SOEs themselves. The Cell has been able to maintain a remarkable degree of independence and, because it is outside the civil service system, to attract a specialist staff. At a review meeting with the Cell, managers will be able to present an explanation of their results. The government proposes to reward good performance with a salary bonus.

15.5 percent financial rate of return, but the economic return was negative. Not only would it be misleading to judge an SOE on the basis of its financial performance, but a manager reacting to financial signals under these circumstances would make the wrong economic decision. Shadow prices can be complex to calculate and administer, so the best solution is to move market prices closer to them by removing distortions wherever feasible.

While these four refinements have been extensively analyzed in theoretical work, their application has proven practically and politically difficult. Some countries are moving to overcome these problems. One system for judging the performance of manufacturing SOEs in Pakistan is described in Box 8.6. The Republic of Korea and Venezuela have also initiated similar projects that will tackle the more complex problem of evaluating enterprises responsible to different ministries.

Information on performance

Assessing SOE performance requires a regular flow of reliable information. But in many developing countries the internal management information systems of SOEs are deficient or nonexistent. SOEs (as well as private companies) are not audited according to uniform standards; more than seventy developing countries have no accounting standards. Trained accountants are scarce, because in many developing countries (outside Latin America) accounting became part of the university curriculum only after 1960. Even now there are often no uniform standards of training.

These weaknesses are gradually being rectified. Many francophone West African countries have tried to adapt France's accounting model to their needs. This program—the OCAM plan comptable, started almost twenty years ago—has met with mixed success. But its application has been too inflexible, with too much reliance on expatriate experts and too little attention paid to local accounting capabilities. In Senegal the accountancy profession has proposed a two-tiered system, with annual external audits conforming to internationally accepted procedures required for all companies above a certain size and "limited review au-
dits" for all other companies. The latter would be stricter than the current standard but less comprehensive (and cheaper) than full-scale audits.

The development of uniform and credible accounting requires a trained body of practitioners as well as a system to set and review standards and to qualify accountants. This foundation can be built up by designating responsibility within the government for the development of accounting; establishing accounting standards backed by an appropriate legal framework; assessing staff needs and designing training for bookkeepers and accountants; and fostering a professional association that could assume responsibility for enforcing standards.

Formal accountancy procedures are not the only way managers can improve the information on which they base their actions. Improvements can also be obtained through a management audit, which requires the firm to establish and adhere to a basic information system and routine control procedures. As with a financial audit, an outside auditor would check that these procedures function properly and generate reliable data that management and government can compare with targets. Many large accounting firms can now assist enterprises in setting up and using management-auditing systems.

A somewhat similar management tool is the action plan, designed to focus efforts on improving efficiency and monitoring results. The experience of the Bolivian railways illustrates how action plans work in practice. The railway had three action plans between 1973 and 1979, with objectives that ranged from reorganizing workshops and repairing rolling stock to rehabilitating and maintaining track. Monitored targets included the average percentage of total cars and locomotives in operating condition during the year, the number of staff, the turnaround time for maintenance, and the amount of track to be rehabilitated. Action plans specify the measures to be used to achieve the targets (such as training or allocation of foreign exchange for the purchase of spare parts) and the timing.

Pressure from competition, the public, and clients

Governments cannot always arrange for their SOEs to be exposed to competition. Many state firms are monopolies producing goods and services that are not traded internationally or that the government prefers to produce domestically for reasons of national security or public interest. In other cases, the economy may be too small to support another domestic producer. Where it is possible to do so, however, exposing SOEs to competition can be a simple and effective way to promote their efficiency. And if managers are required to pursue noncommercial goals for political or social reasons, competition will help to quantify the costs of those goals. Thus Peru recently reduced tariffs and eliminated import quotas to force industries to compete with imports.

Another possibility is to split large public monopolies into smaller competing units, especially if the monopoly did not benefit from economies of scale. In Hungary, for example, at least 130 new enterprises were established by breaking up horizontal trusts and large state firms. For competition to be fully effective in promoting efficiency, these measures must be accompanied by pricing freedom. Privileged access to subsidized credit and inputs would have to end. Also, managers must be given discretion to respond to competitive pressures, which may mean reducing staff or ending unprofitable services. The enterprise might also have to be reimbursed for the extra costs of meeting social goals.

Organized public pressure is another way of encouraging SOE efficiency. Britain, for example, has consumer councils. Although they have no executive powers, they monitor the service provided by public monopolies and act as a proxy for market forces. The Electricity Consumer Council examines not just tariffs but also power cuts, delays in connections or repairs, and responsiveness of staff to customer inquiries and complaints.

Clients can also induce efficiency; accountability to growers was an important factor in the success of the Kenya Tea Development Authority. SOEs can be required to publish timely annual reports and accounts, to be tabled in Parliament or made publicly available. Chile, for example, recently required state companies to publish their financial balances in the newspapers.

Appropriate managerial incentives and skills

Institutional success is often attributed to the presence of "a good manager." Competent staff are no doubt essential for any efficient enterprise. They do not operate in a vacuum. They need incentives to attract and motivate them, and the power to be effective.

Incentives linked to results. Some of the most effective rewards are nonpecuniary—recognition, greater responsibility, promotion, and national honors. Autonomy can also be a strong incentive.
for SOE managers. For example, the threat of losing its independence motivated the management of the Kenya Tea Development Authority. By the same token, managers need to know that they face penalties for poor performance, such as losing their jobs.

As for pecuniary incentives, few countries have used performance bonuses or profit sharing to motivate top management. An exception is Mexico, which distributes 7 percent of SOE profits to all employees in proportion to their salaries. In Hungary, ministries judge the size of bonuses to senior SOE managers by reference to such factors as profitability, exports, development of new products, and punctuality of deliveries. Many more countries award performance bonuses to workers, and their experience reveals some of the difficulties involved. Bonuses run the risk of becoming so automatic and large that they are treated as part of everybody’s salary; they are not easily related to the actions and decisions of individual managers. To be effective, profit-sharing schemes require that managers affect profits and that profits be a fair guide to performance. Otherwise managers of SOEs in which profits are inherent in their operating conditions—such as many petroleum or electricity companies—would be enriched, while a manager who stems chronic losses might go unrewarded.

Appropriate managerial skills. The skills of a public enterprise manager need to be closer to those of his private sector counterpart than to those of a government bureaucrat. Nevertheless, in some countries managers are part of the civil service, or at least subject to its pay scale. Even where this is not the case, their pay seldom matches private salaries. Although the prestige and challenge of running what are often the largest corporations in the country may sometimes compensate for lower pay, low salaries tend to deter skilled managers and increase staff turnover. To give one of many examples, salaries in a Turkish public utility averaged one-third those of the private sector in 1981 and the company has had seven general managers in the past ten years. In addition, good SOE managers who face frequent unjustified interventions, or whose achievements go unnoticed for want of a system to evaluate them, tend to become disgruntled and leave.

The growing number of SOEs has contributed to a chronic shortage of managers in many sub-Saharan African and South Asian countries, a shortage sometimes exacerbated by programs for rapid indigenization. Many senior posts are left vacant or are filled by unqualified staff. For example, in Tanzania half of the ten large agricultural SOEs had no financial manager in 1980. In the Nigerian Electric Power Authority, thirty-five of eighty-seven higher management posts were vacant in 1981. The lack of competent middle managers often leads general managers to take over lower supervisory functions. In a centralized system they may also be the only point of contact with outsiders. The organization thus becomes too dependent on its chief executive.

The shortage of managers also contributes to a high rate of turnover, as competent people are shifted around to head troubled SOEs. A study of nine countries in sub-Saharan Africa found that the average tenure of SOE general managers in the 1970s was less than two years. Even countries without a managerial shortage change SOE managers with damaging frequency if selection of top managers is based on nepotism or political patronage. To counteract this, some countries (such as India and Brazil) have set up management selection boards to nominate candidates on merit alone. Continuity of top management is especially important in a company’s formative years. Furthermore, continuity allows a good chief executive time to attract and retain talented middle managers. For example, the Hindustan Machine Tool Company, one of the most successful Indian SOEs, was also one of the few public corporations in India to have the same chief executive for almost fifteen years.

In certain specialized areas (mining in Zaire, for example), management contracts with expatriate firms have helped alleviate the shortage of managers. Another step is to give priority to managerial development in SOEs. In the past, more attention has been paid to technical expertise for SOEs than to their managerial requirements. Although SOE management training does not lend itself to centralized direction, governments can encourage SOEs to earmark funds for training. Some of the largest have their own management training centers but most rely on business schools, management consultants, expatriate advisers, and foreign suppliers or collaborators.

"Twinning" an SOE with its counterpart in another country has proved an effective way of transferring know-how and training staff. Companies offering technical assistance as twins are not exclusively from North America and Europe. Among many examples from developing countries are the Port of Singapore, the National Irrigation Agency of the Philippines, and the Tunisian Water Au-
Box 8.7 TANESCO: a study in institution building

The Tanzania Electric Supply Company Limited (TANESCO) was founded as a private company in 1931 and acquired by the government of Tanzania in 1964. It now operates as an SOE under the sponsorship of the Ministry of Water and Energy. TANESCO has more than 6,000 employees and produces about 98 percent of the country’s electricity consumption.

Management continuity and a firm commitment to staff training have been critical to TANESCO’s development. Over the past twenty-eight years, it has had only four general managers, and many of its senior staff have been with the company for at least ten years. The proportion of Tanzanians in senior posts has risen from 20 percent in 1964 to 85 percent in 1980. In 1968, TANESCO established its own technical training institute, which was developed with assistance from the Swedish International Development Agency. European and Indian expatriate staff provided on-the-job training. By 1974, after the first stage of the company’s literacy program, all employees were able to read and write. Between 1976 and 1981 TANESCO sent fifty staff overseas to obtain engineering degrees. The first Tanzanian general manager, who was appointed in 1973 and retired in 1981, used foreign management consultants to reorganize the utility on functional lines and expanded the programs for training and staff development.

The “twinning” of TANESCO and the Electricity Supply Board of Ireland (ESB) in 1977 had a decisive influence on the development of the company’s managers. During the first year of the scheme, about twenty TANESCO staff members were given from three to twelve months’ training in Dublin followed by a brief period of on-the-job training with ESB or in similar utilities in the United Kingdom and the United States. Both “twins” took great care to design a training program that fitted TANESCO’s needs. When the trainees returned to Tanzania, their shared experience in Ireland helped them to work better as a team.

The more-developed SOE may temporarily provide its twin with some of its own staff as advisors and trainers, may make periodic visits to give technical assistance, or may employ the staff of its twin at its own facility for on-the-job training (see Box 8.7).

The administrative burden placed on SOE managers may be partly caused by their diversion to extraneous activities. For example, in Peru the management of a public fishing plant also runs a hotel. While diversification can be profitable and logical, it is often done for the wrong reasons and, by straining resources, damages the SOE’s mainstream activities.

Liquidation

By saving the economy the burden of nonviable enterprises, liquidations act as a major force for efficiency. Because of the financial and social consequences, however, governments are reluctant to let big firms close, whether they are in the public or the private sector. Even among small firms, SOEs are seldom liquidated. But the costs of keeping nonviable companies alive are considerable—fiscal drain, administrative demands, and waste of potentially productive resources. To take an extreme case, in Peru a freeze-drying plant owned by the state was built without adequate study of the market or its suppliers of raw materials. From the start, the firm’s production costs exceeded its revenues. It was shut down and reopened on several occasions. Finally, in 1980 and after fifteen years of losses, it was liquidated.

This case also illustrates the need for a proper legal framework to allow speedy liquidation. Peruvian law makes it almost impossible to dismiss workers (in both the public and private sectors). Although the company offered its staff a bonus over and above required severance pay to leave, for more than six months after the plant was shut down a small group of workers continued to report for work each day to receive their wages. Until all the staff had left, the assets could not be sold.

Liquidation and other forms of divestment give the government the flexibility to put resources to more productive use. Since these gains have to be weighed against short-term costs, vested interests often deny the state the possibility of even considering the option—to the long-run detriment of the economy.

Divestiture

Selling state-owned enterprises is another way of easing their administrative and financial burden on the state. A number of governments, including Bangladesh, Brazil, Chile, Italy, Jamaica, Republic of Korea, Pakistan, Peru, Philippines, United Kingdom, and Zaire, have divested or are planning to divest SOEs. Generally, however, the number and importance of the enterprises sold is not large.
After an initial attempt to promote industrialization through state ownership, the Japanese government in the 1880s sold many state firms, including fifty-two factories, ten mines, and three shipyards. Between 1974 and 1980, Chile sold some 130 state enterprises, with a value of more than $500 million. (In addition, more than 250 enterprises nationalized between 1971 and 1973 were returned to their former owners.) Despite these measures, in 1979 the eight largest Chilean companies (in terms of net worth) were still publicly owned.

Other privatizing programs have been far more limited. Brazil created a commission for divestiture in 1981: by mid-1982 it had sold ten enterprises and was in the process of selling another thirty-six, while ten other SOEs have been legally dissolved. Jamaica has set up a divestiture committee which has sold three enterprises and leased four hotels. Pakistan denationalized some 2,000 rice, flour, and cotton mills, while Bangladesh returned 35 jute and 23 textile mills to the private sector.

Although divestiture can produce important net gains to society when the costs of public operation outweigh the benefits, it has been hard to implement. It is politically sensitive and prompts charges of corruption. In addition, governments often try to sell only their money losers, for which there are few buyers. Even profitable nationalized companies may be hard to sell. An informal survey of the potential market for Peruvian SOEs found that likely buyers were reluctant to purchase even fairly small companies. The reasons given included fear of renationalization and concern about extensive government regulation of formerly public firms. These perceptions may mean governments have to accept a lower price than the market value for a similar private firm. Both Chile and Japan sold most of their state firms on attractive terms.

Another reason divestiture is so difficult in developing countries is the absence of a strong capital market. Public companies are often large and domestic investors may not be able to raise enough capital to buy them. And selling large SOEs to oligopolists who already dominate the private sector might reduce competition. It could also result in unhealthy ties between financial institutions and industry, further reducing the flexibiltiy of capital markets.

Efforts to develop the stock market, and schemes that appeal to small savers through their pension funds, could make it easier for governments to divest. Spreading ownership more widely and divesting only gradually can improve the chances of privatization; it may even reduce the attendant political controversy. Leasing can also be a promising route to divestiture: a private manager might be brought in to run a potentially profitable enterprise for a share of the profits and an option to buy.

Agenda for reform

This chapter has suggested ways of improving SOE efficiency, concentrating on the problems that are common to most SOEs in most countries. Judging from what is known about the ideal conditions for operating efficiently, it has examined how the reality of SOEs differs from the theoretical ideal. By recognizing the SOEs' special circumstances and constraints, it is possible to develop an agenda for reform that would correct some of their main weaknesses:

- Setting clear-cut and attainable objectives is the inescapable first step toward improved SOE performance. The costs of noncommercial constraints placed on SOEs should be calculated and weighed against the benefits to society.
- Once constraints have been identified and costed, governments can instruct many SOEs to maximize their profits, taking into account other objectives that reduce profits by reimbursing the companies or lowering their profit targets.
- Where there are price distortions, shadow pricing offers a way to assess SOE performance consistent with economic efficiency. The better alternative is to move to market pricing (or marginal cost pricing where market pricing is not feasible). This would encourage greater efficiency by giving the correct market signals to managers and consumers. Although market pricing typically entails short-run political problems and costs, the long-run benefits are substantial.
- Negotiated agreements, such as contracts or corporate plans, can help put relations between SOEs and government on a more constructive plane. In particular, two-way contracts can help win SOE management over to the idea of reform by laying out benefits as well as responsibilities.
- Once government has laid down objectives, managers can be made responsible for choosing the methods of achieving them.
- Systems for monitoring and evaluating performance are needed to transform good intentions into results. By promoting domestic and international competition and encouraging consumers and other customers to make their views known, governments can add to the pressures for good SOE
performance. Some of the most powerful incentives are nonpecuniary (recognition, prestige, awards).

- Managerial ability is a key to the success of SOE reform. Managerial incentives linked to performance are important in motivating top managers. Compensation and training should be geared to create a corps of competent SOE managers with appropriate skills. Efforts should also be directed at encouraging continuity of senior staff.

- The managerial and fiscal burden of SOEs can be reduced by liquidating nonviable enterprises as well as by selective sales. These should not be treated as instant solutions, but rather as integral parts of the process of replacing the burden of central administration by decentralized market forces.

With strong political backing, this agenda is feasible. In any administrative system there are strong vested interests opposed to change. Opposition to reform may come from managers of powerful SOEs or senior government bureaucrats fearing loss of power, labor unions fearing job cuts, SOE clients fearing an end to subsidized outputs, suppliers fearing reduced SOE spending, or even from SOE competitors (some private companies profit nicely when prices or incentives for a sector are geared to allow an inefficient SOE to survive).

Since these elements are interrelated, a piecemeal approach is unlikely to achieve the desired results. Without clear objectives there can be no standards by which to judge performance; without accountability few governments would increase SOE autonomy; autonomy becomes license without performance evaluation; incentives can be linked to performance only if there is a meaningful way to measure results; performance evaluation makes sense only if managers have the autonomy to influence outcomes; without performance evaluation there is no way to distinguish good managers from bad. Developing a framework to guide SOEs toward efficiency is thus a lengthy, complex process that requires commitment, persistence, and flexibility on the part of state authorities and enterprise management.