Globalisation, Economic Development and the Role of the State

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Chapter 6

Public Enterprises in Developing Countries and Economic Efficiency: A Critical Examination of Analytical, Empirical, and Policy Issues

1. INTRODUCTION

SINCE the late-1970s, a large number of developing economies, particularly in Africa and Latin America, have been subject to extremely stringent foreign exchange constraints. As a consequence, these countries have had to go to the international financial institutions—the IMF and the World Bank—for balance-of-payments support and economic assistance. Invariably such assistance has only been forthcoming from the Bretton Woods institutions, subject to overlapping and detailed conditionality involving both demand- and supply-side measures. The latter include, inter alia, as Avramovic (1988) notes, ‘growth’ conditionality which is ‘focused on giving free hand and incentives to the private sector of the economy, including “privatisation” of government-owned enterprises (the World Bank terminology for public enterprises) as much as possible, rationalisation of the rest, promotion of foreign direct investment’.

Unlike the US Agency for International Development which promotes privatisation for avowedly ideological reasons (see Aylen 1987), the IMF/World Bank deny any ideological motives for their endeavours. Instead they suggest that their main argument for privatisation is the poor economic performance and the manifest inefficiency of the state-owned enterprises and the over-extension of the role of the state. Thus the Berg Report on Sub-Saharan Africa (World Bank 1981) concluded that:

'It is now widely evident that the public sector is overextended, given the present scarcities of financial resources, skilled manpower, and organisational capacity. This has resulted in slower growth than
might have been achieved with available resources, and accounts in part for the current crises. Without improved performance of public agencies, stepped-up growth will be difficult to achieve" (p.5).

In the same vein, the World Development Report for 1987 observed: 'The performance of SOEs (state-owned enterprises) varies widely between countries, but their record has frequently been poor, particularly in developing countries. They have clearly failed to play the strategic role in industrialisation that governments had hoped for. Financial rates of return have generally been lower for the SOEs than for the private sector as recent comparative studies for Brazil, India, and Israel have indicated. Financial profitability has often been compromised by price controls, but the indications are that the SOEs have also had a generally poor record of social profitability. They have often put large burdens on public budget and external debt' (pp.66-7).

Such unfavourable assessments of public enterprises and the role of the state in the economic sphere have also been echoed by some influential mainstream economists. Thus Balassa et al. (1986) maintain that "the essential factor that gave impetus... to the severity of the economic and social crisis of the 1980s was the pervasive and the rapidly expanding role of the state in most of Latin America". Similarly, Vernon (1988: pp.18-9) suggests that privatisation today is being driven by a spirit of pragmatic reaction to at least three decades of failed experiments in public enterprise.

The present chapter first examines the analytical arguments and evidence which are available concerning the economic efficiency of public enterprises in the non-centrally-planned, mixed-economy, developing countries. And then it discusses some of the options that are open to governments which want to improve the performance of their public enterprises, including privatisation, organisational reform, increase in competition, and political reform.

2. THE 'INEFFICIENCY' OF PUBLIC ENTERPRISES:
PRELIMINARY CONSIDERATIONS

The allegation that public enterprises (henceforth PEs) are invariably 'inefficient' or that most of them perform badly cannot survive even an elementary examination of facts. Consider the following.

Public enterprises are ubiquitous in mixed economies throughout the world — they have not simply been confined to left-wing regimes or underdeveloped or poorly performing countries. In view of the differences in definitions of what constitutes a PE, and a variety of other statistical problems, it is difficult to obtain data on an internationally comparable basis of the relative size of PE sectors in different economies (for a discussion of this point, see Short 1984). Nevertheless, the best available information from the IMF suggests that excluding centrally-planned economies, in the mid-1970s, PEs in the developing countries accounted on average for 8.6% of GDP and 27% of total gross fixed capital formation. In the industrial market economies, the share of the PEs in GDP was slightly higher, 9.6%, although in gross fixed capital formation, it was considerably lower, being 11.1% (for more detailed information, see Short 1984: Table 1).1

Table 1 provides information on the size of the PE sector for a selection of developing countries. As the table indicates, PEs play a significant role in the economies of highly successful East Asian newly industrialising countries (henceforth NICs), that is, Taiwan and South Korea. In fact, the PE sector in these countries is at least as large, if not larger, than in other leading NICs like India, Argentina, Brazil, and Mexico, and clearly larger than that in countries like the Philippines or Peru, which are often dubbed as classic 'failure' cases. In Taiwan, hardly a 'socialist' regime, PEs have contributed a third of gross fixed capital formation throughout the years 1950 to 1975, a period which saw the most spectacular growth and industrialisation of that country. In Africa, the data in Table 1 show that PEs have played almost as large a role in the market-oriented (and often regarded as successful) economies of Ivory Coast and Kenya as they have done in 'socialist' Tanzania. Jones and Mason (1982) suggest that, although ideology does have an influence, there are very important structural factors which can account for the relative size of the PE sector in less developed countries (LDCs).

1 The share of PEs in fixed capital formation is greater in developing countries than in industrialised countries, while their shares in GDP are similar because, in relative terms, the capital-output ratio of PEs in developing countries is much higher than the economy-wide average while that of PEs in developed countries is not so.
Table 1: Output and Investment Shares of Public Enterprises in Selected Developing Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Years</th>
<th>Percentage Share in GDP at Factor Cost</th>
<th>Percentage Share in Gross Fixed Capital Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>1960-61</td>
<td>5.3</td>
<td>34.7</td>
</tr>
<tr>
<td></td>
<td>1966-69</td>
<td>6.5</td>
<td>29.6</td>
</tr>
<tr>
<td></td>
<td>1978</td>
<td>10.3</td>
<td>33.7</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1961</td>
<td>4.5</td>
<td>n.a.</td>
</tr>
<tr>
<td></td>
<td>1974-75</td>
<td>6.0</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td>1978-81</td>
<td>n.a.</td>
<td>46.6</td>
</tr>
<tr>
<td>Philippines</td>
<td>1960</td>
<td>n.a.</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>1965</td>
<td>n.a.</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>1974-77</td>
<td>1.7</td>
<td>9.5</td>
</tr>
<tr>
<td>Taiwan</td>
<td>1951-53</td>
<td>11.9</td>
<td>31.4</td>
</tr>
<tr>
<td></td>
<td>1966-69</td>
<td>13.6</td>
<td>28.0</td>
</tr>
<tr>
<td></td>
<td>1978-80</td>
<td>13.5</td>
<td>32.4</td>
</tr>
<tr>
<td>South Korea</td>
<td>1963-64</td>
<td>5.5</td>
<td>31.2</td>
</tr>
<tr>
<td></td>
<td>1970-73</td>
<td>7.0</td>
<td>21.7</td>
</tr>
<tr>
<td></td>
<td>1978-80</td>
<td>n.a.</td>
<td>22.8</td>
</tr>
<tr>
<td>Mexico</td>
<td>1975-77</td>
<td>n.a. (61)</td>
<td>27.0 (21.8)</td>
</tr>
<tr>
<td>Brazil</td>
<td>1968</td>
<td>n.a.</td>
<td>14.0</td>
</tr>
<tr>
<td></td>
<td>1980</td>
<td>n.a.</td>
<td>22.8</td>
</tr>
<tr>
<td>Argentina</td>
<td>1966-69</td>
<td>n.a.</td>
<td>15.4</td>
</tr>
<tr>
<td></td>
<td>1974-75</td>
<td>n.a.</td>
<td>18.2</td>
</tr>
<tr>
<td></td>
<td>1978-80</td>
<td>4.6</td>
<td>19.6</td>
</tr>
<tr>
<td></td>
<td>1985</td>
<td>n.a.</td>
<td>15.3</td>
</tr>
<tr>
<td>Venezuela</td>
<td>1978-80</td>
<td>27.3 (3.0)</td>
<td>36.3 (25.7)</td>
</tr>
<tr>
<td>Peru</td>
<td>1960</td>
<td>n.a.</td>
<td>5.1</td>
</tr>
<tr>
<td></td>
<td>1968-69</td>
<td>n.a.</td>
<td>11.2</td>
</tr>
<tr>
<td></td>
<td>1978-79</td>
<td>n.a.</td>
<td>14.8</td>
</tr>
<tr>
<td>Tanzania</td>
<td>1966-69</td>
<td>9.3</td>
<td>22.7</td>
</tr>
<tr>
<td></td>
<td>1974-77</td>
<td>12.3</td>
<td>30.3</td>
</tr>
<tr>
<td></td>
<td>1978-79</td>
<td>n.a.</td>
<td>16.3</td>
</tr>
<tr>
<td>Kenya</td>
<td>1964-65</td>
<td>7.5</td>
<td>9.7</td>
</tr>
<tr>
<td></td>
<td>1970-73</td>
<td>8.7</td>
<td>10.6</td>
</tr>
<tr>
<td></td>
<td>1978-79</td>
<td>n.a.</td>
<td>17.3</td>
</tr>
<tr>
<td>Ivory Coast</td>
<td>1965-69</td>
<td>n.a.</td>
<td>16.5</td>
</tr>
<tr>
<td></td>
<td>1970-73</td>
<td>n.a.</td>
<td>27.9</td>
</tr>
<tr>
<td></td>
<td>1979</td>
<td>10.5</td>
<td>39.5</td>
</tr>
</tbody>
</table>

Source: Solt (1984): Table 1

Notes:
1. Share in Gross Domestic Capital Formation (rather than GFCF)
2. Figures in parentheses exclude iron ore and petroleum enterprises nationalized in 1975
3. Major enterprises only
4. Share in GDP at market prices
5. Figures in parentheses include 22 major public enterprises only

Table 2: Relationship between Public Enterprise Sector, Income Level, and Growth

| Source: Kirkpatrick (1986) |

<table>
<thead>
<tr>
<th>Rank Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of public enterprise output in GDP, and income per capita</td>
</tr>
<tr>
<td>Share of public enterprise investment in GFCF, and income per capita</td>
</tr>
<tr>
<td>Share of public enterprise output in GDP, and growth in income per capita (1960-81)</td>
</tr>
</tbody>
</table>

Kirkpatrick (1986) has examined the relationship between the size of the PE sector, per capita GDP and the rate of growth of GDP between 1961 and 1981 for a sample of 23 LDCs in Asia, Africa, and Latin America. He found the rank correlation coefficients between these variables reported in Table 2.

If PEs always performed poorly, other things being equal, one would expect a negative correlation between the size of the PE sector in a country and its economic performance. However, the observed correlation coefficients above are very small and statistically insignificant and do not always have the correct sign. Clearly at the very least the notion that the PE sector is inimical to economic growth fails to be confirmed by such aggregate analysis.²

Table 3 presents data on the size of the PE sector in advanced capitalist countries (henceforth ACCS). In these economies, the inter-country differences in the incidence of PEs are due to a rather different set of factors than for LDCs. Following the end of the Second World War, many firms were nationalised in Western Europe as a consequence of either the accession to power of left-wing governments (as,
for example, in the UK), or as a result of the confiscation of assets of the ‘collaborators’ as in France and Italy (see By6 1955: pp.74-81 on the ‘punitive nationalisations’ in postwar France).

Again we observe at the aggregate level that France and Austria, the two countries where the incidence of PEs was very high, had an extremely successful record of economic growth in the quarter-century 1950-1975. In this context, the case of Austria is particularly significant. As Kaldor (1980: p.3) reminds us, ‘[i]t is perhaps not generally known that next to Japan, Austria had the fastest rate of economic growth since the Second World War, and the fastest increase in real income per head – in sharp contrast to the inter-war period when her economy was stagnant throughout most of the period, with heavy unemployment’. Kaldor observes that ‘the public sector of Austria, accounting for 16% of all employees, 20% of total output, and 25% of exports, is the largest (in relative terms) among the developed countries of the West.’

Take another example. As it happens, the most efficient steel company in the world is the giant Korean enterprise POSCO (Pohang Steel Company). POSCO is state-owned; it produced 467 tons of crude steel per person in 1986 compared with an average of 327 tons for Japan’s five biggest steel producers. POSCO’s efficiency advantage is passed on to its Korean customers. It charges its domestic steel consumers $320 per ton – far less than American or Japanese carmakers who (according to POSCO) pay $540 and $430 respectively (The Economist, 21 May 1988, p.16; also see Amsden 1989: pp.298-9). If PEs are thought to be inherently poor performers (whether this is actually true or not will be examined in the following sections), the Posco example does raise the important analytical question – why should that be so? If POSCO is an exception, the obvious issue is – what makes it so?

As we shall see below, although POSCO is not typical, it is not that much of an exception either. We shall also see that empirical evidence on the poor performance of PEs relative to private firms (henceforth PEs) in properly conducted comparisons – which control for the effects of industry, size, age, market power, etc. (more on this in Section 4) – is far from being either universal or conclusive. Suffice it to note here that even in countries where the PE sector is not thought to be generally successful in the mainstream accounts, there are

<table>
<thead>
<tr>
<th>Country</th>
<th>Years</th>
<th>Percentage Share in GDP at Factor Cost</th>
<th>Percentage Share in Gross Fixed Capital Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>1970-73</td>
<td>15.8</td>
<td>n.a.</td>
</tr>
<tr>
<td></td>
<td>1978-79</td>
<td>14.5</td>
<td>19.2</td>
</tr>
<tr>
<td>France</td>
<td>1959-61</td>
<td>12.7 (7.6)</td>
<td>23.0 (14.5)</td>
</tr>
<tr>
<td></td>
<td>1966-69</td>
<td>12.8 (6.9)</td>
<td>19.0 (10.2)</td>
</tr>
<tr>
<td></td>
<td>1974</td>
<td>11.9 (5.2)</td>
<td>14.0 (7.2)</td>
</tr>
<tr>
<td></td>
<td>1982</td>
<td>n.a. (6.5)</td>
<td>n.a. (12.5)</td>
</tr>
<tr>
<td>Italy</td>
<td>1967-69</td>
<td>7.0</td>
<td>14.2</td>
</tr>
<tr>
<td></td>
<td>1974-77</td>
<td>7.7</td>
<td>17.2</td>
</tr>
<tr>
<td></td>
<td>1979-80</td>
<td>n.a.</td>
<td>15.2</td>
</tr>
<tr>
<td>Japan</td>
<td>1965</td>
<td>n.a.</td>
<td>13.6</td>
</tr>
<tr>
<td></td>
<td>1970-73</td>
<td>n.a.</td>
<td>9.9</td>
</tr>
<tr>
<td></td>
<td>1978-81</td>
<td>n.a.</td>
<td>11.2</td>
</tr>
<tr>
<td>Sweden</td>
<td>1978-80</td>
<td>n.a. (6.0)</td>
<td>15.3 (11.4)</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1938</td>
<td>n.a.</td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td>1946-49</td>
<td>n.a.</td>
<td>11.0</td>
</tr>
<tr>
<td></td>
<td>1950-53</td>
<td>n.a.</td>
<td>21.5</td>
</tr>
<tr>
<td></td>
<td>1962-65</td>
<td>10.3</td>
<td>19.8</td>
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<tr>
<td></td>
<td>1974-77</td>
<td>11.3</td>
<td>18.6</td>
</tr>
<tr>
<td></td>
<td>1982</td>
<td>11.2</td>
<td>17.1</td>
</tr>
</tbody>
</table>

Source: Short (1984: Table 1)

Notes
1. Share in GDP at market prices
2. Share in Gross Domestic Capital Formation (rather than GFCF)
3. Figures in parentheses exclude public enterprises at the regional or local level
4. Figures in parentheses are for large enterprises only

nevertheless acknowledged outstanding cases of efficient PEs (see Nellis and Kikkeri 1989). For example, in Sub-Saharan Africa, notable examples of successful PEs include the following: the Kenyan Tea Development Authority, the Ethiopian Telecommunications Authority, the Tanzanian Electricity Supply Company Limited (see World Bank 1983: pp.78-85), and the Guma Valley Water Company of Sierra Leone (see Luke 1988).
In view of the above, it may seem strange that there is such widespread prejudice against PEs and that throughout the world there are calls for their privatisation (also see Commander and Killick 1988: pp.19-69). The change in people’s attitude towards public ownership since the 1980s has been so dramatic that it appears to be difficult to understand the shift except in terms of what Hirschman (1982) calls ‘the public-private cycle’ due to the inevitability of ‘disappointment’ with different (that is, public and private) modes of preferences and actions in our socio-economic life.

3. THE ‘EFFICIENCY’ OF PUBLIC ENTERPRISES: THEORETICAL PERSPECTIVES

Before we consider the empirical studies on the relative efficiency of PEs in the LDCs, it will be useful to examine the theoretical arguments for and against PEs.

3.1 Public Enterprises and Economic Development

The analytical reasons for the establishment and operation of PEs, particularly in LDCs, have a long standing in the literature and are well-known. They arise partly from ‘market failure’ and partly from other broader considerations. Very briefly, these reasons may be stated as follows:

(a) In view of incomplete or underdeveloped capital markets, the government may have to step in to establish firms in many areas where the country may have a dynamic comparative advantage but where the scale of investments required is too large (e.g., steel, chemical, etc.) for the private sector to undertake. As the classic thesis of Gerschenkron (1962) goes, such need may be greater for countries which embark on industrialisation later due to the growing scale of efficient production.

(b) Similar considerations apply even more strongly to large infrastructural investments in developing countries (electricity, transport, telecommunications, etc.). These industries, moreover, often tend to be natural monopolies which can provide

in many circumstances an additional justification for either nationalisation or the establishment of public enterprises (more on this in Section 4.1.1).

(c) An important set of arguments for PEs to dominate the economy as a whole derive from macroeconomic considerations, and especially the nature of private investment in a mixed economy. Kaldor (1980) provides a classic statement on this point: ‘when public investment is part of a national plan, it is possible to take into account all kinds of criss-cross effects (or indirect effects) into consideration which would not be possible with private investment. Keynes once said that in the face of complete uncertainty investors generally rely on a convention that the future will be just like the present, and for that reason “the effects of the existing situation enter, in a sense disproportionately, into the formation of long-term expectations”. Hence capacity is only likely to be created in so far as its use appears to be profitable at the existing state of demand. Since the demand for commodities depends on the levels of incomes which are generated in production, the additional production generated in the future by the sum of the investment decisions of the present will itself increase the demand of commodities in comparison with the present level – a factor which private investors cannot take into account (or can do so only imperfectly) since they take their decisions independently of each other. Investment by public enterprises, on the other hand, can take the comprehensive effect of all investments into account in judging the social profitability of any particular investment project. It should be noted, however, that a state plan is capable of doing this even when the investment is undertaken by private enterprises, as the Japanese example shows. What is required is that there should be a fairly comprehensive state investment plan for industrial development, and the state should be capable of giving effect to this plan, through the “administrative guidance” of the privately-owned firms – provided that, as in Japan, these are native and not foreign-owned firms.’

(d) The domination of a developing economy by foreign enterprises may be regarded as being not conducive to long-term economic planning and growth if it hampers the accumulation of local technological capability. Given this, the establishment of public
enterprises, or joint ventures between public and foreign firms, may in many cases be the only effective alternative.

(e) Apart from the issue of overall economic efficiency, there are very respectable distributional and equity arguments for the establishment of public enterprises in many areas of the economy.

Using public enterprise pricing policy to achieve distributional objectives may save the high information gathering and monitoring costs involved in running the equivalent tax/subsidy schemes.

These theoretical reasons for the establishment of public enterprises are important for assessing empirical evidence on the relative performance of public and private enterprises, as we shall see below. But they do not tell us anything about how efficiently the operations of the public enterprises will be conducted once they have been set up. On this important issue, there is another, much more recent, branch of theoretical literature from the fields of the theory of the firm and industrial organisation which is relevant. It is to that we now turn.

3.2 The Operation of Public Enterprises (I): The Principal-Agent Problem

3.2.1 The Argument

A PE is definitionally run by managers who do not own the firm. Since nobody, being a self-seeking agent, takes care of somebody else's business as seriously as one's own, the managers of a PE would not strive to improve the efficiency of the firm as an owner-manager would do with his own firm. Of course, this problem will be overcome if 'the public', who are the, at least de jure, owners of the PEs, can perfectly monitor the manager's efforts. However, since somebody who is actually doing the job knows more about the job better than anybody else, and since it is inherently difficult to fully differentiate the changes in performances that are due to the changes in managerial efforts from such changes that are due to other factors, it will be impossible to perfectly monitor the manager's effort level.

To put it in terms of the current concerns in the theory of the firm, there is a principal-agent problem, which results from the inability of the principals (the public in this case) to contain the consequences of self-seeking behaviour by the agents (the PE managers in this case) due to imperfect, and especially asymmetric, information (on the principal-agent problem, see the classic paper, Jensen and Meckling 1976; for a summary discussion, see Stiglitz 1987).

Needless to mention - although this point is not often mentioned by the opponents of PEs - the same problem exists for PFs as far as they are not run by the owner-manager (Baumol 1980 raises the same point). However, it is argued, there is another layer of principal-agent problem in the case of PEs (Yarrow 1989). That is, since the direct responsibility of monitoring the performances of the PE managers falls on the government, which is made up of politicians and bureaucrats who are acting as the agents of the public and are as self-seeking as anybody, the public will find it difficult to monitor whether the government as an agent is putting in enough effort to monitor the PE managers (Yarrow 1989).

Therefore, it is argued that privatisation, by eliminating the two-tier delegation structure (the public – ministers – PE managers) and constructing a direct link between the principal and the agent (shareholders – PF managers), would reduce the harmful inefficiency consequences of public ownership (Yarrow 1989).

3.2.2 Criticisms

a. The Problem of ‘Shareholder Collective Action’

Privatisation does not necessarily guarantee an effective monitoring of managerial behaviour, even if we ignore the problem of divergent and possibly incompatible objectives of individual shareholders (see Vickers and Yarrow 1988: p.11). This is because, unless

3 Yarrow emphasises the principal-agent problem much more in his 1989 article than he did in his 1986 article, which we refer to later.

4 Moreover, the principal-agent problem between the public and the government is aggravated by the limits of the electoral system. That is, since 'a typical member of the public... will have an opportunity to vote once every four or five years and will face an almost zero probability of influencing the outcome of the election' and since 'the election will be concerned with a wide range of issues, not just with the question of the stewardship of any one publicly owned firm,' 'the average voter has very little incentive to acquire costly information about the performance of elected representatives in monitoring particular firms' (Vickers and Yarrow 1988: p.31).
the share is sold to a very small number of individuals, there exists the problem of what we can call, adapting Olson (1965), 'shareholder collective action'. That is, when the shareholder group comprises a large number of individuals, no individual shareholder will have an incentive to collect relevant information and monitor the managers, because the individual cannot reap the full benefits from his/her action, as the improved performance is a public good from which every shareholder will benefit without paying for it (for similar arguments, see Stiglitz 1985; Vickers and Yarrow 1988: pp.12-3; also see Yarrow 1989: p.58).

In the case of public ownership, there will be a single or at most a few agencies (ministries, public enterprise agency, public holding companies) who are responsible for the performance of PEs, and therefore there may be less problems of collective action in relation to monitoring activities. In this sense, privatisation can actually worsen public enterprise performance by substituting more effective ministerial monitoring with less effective monitoring through 'shareholder collective action'.

Of course, it is perfectly possible that the ministries who are in charge of public enterprise monitoring, being the agents of the public as principals, may not faithfully do their duties, and the public, being numerous, would also have collective action problems in monitoring the supervisory agencies. However, given the existence of political parties and other political groups as institutionalised mechanisms of collective action, it may be that a collective action by the voting public is often easier than collective action by the shareholders, who lack an institutional device for collective action.

b. One, Two, or Many Levels of Delegation?

As argued above, the fact that PEs have one more level of delegation does not necessarily mean that they will be less subject to monitoring pressures from the principals than PEs. Moreover, the distinction between public and private enterprises in terms of the levels of delegation is a bogus one. This is because any sizeable enterprise, be it public or private, will have more than one layer in the managerial hierarchy. Any large firm is already fraught with the problems of the multiple layers of delegation within the firm. And, therefore, it is not clear whether adding one more level of delegation (ministers-manag-

ers) to the existing multiplicity of intra-enterprise delegations of authority would make so much difference to the performance of the enterprise.

Moreover, there is no clear way to determine what will be the overall number of delegations for a firm on the basis of ownership alone. For example, the levels of delegation (or the levels of managerial hierarchy) within a Japanese firm are usually less than those in an American firm within the same industry (see Dertouzos et al. 1987: p.97). For another example, in the case when a public enterprise is sold to a foreign firm, it will simply substitute one level of delegation (ministers-managers) with another one (headquarters-local managers), thus leaving the number of levels of delegation unchanged. In other words, it is not clear whether privatisation will reduce the levels of delegation involved in the management of the enterprise.

c. Self-seeking Managers and Bureaucrats?

The assumption of self-seeking individuals, which is (together with imperfect information) necessary for the principal-agent problem to exist, is also suspect. For example, if the bureaucrats and PE managers are only interested in their own affairs, why are PEs run very efficiently in non-democratic countries, where the public has very little control over them, like Taiwan – which had been a one-party state for almost forty years until the late-1980s – and South Korea – which had had only very sporadic interludes of democratic politics between long stretches of highly authoritarian politics until the late-1980s?

In these countries, there had been no check whatsoever on the agents (bureaucrats and PE managers) by the principals (the public) through the 'political market' (voting) (see below). However, South Korea has a very efficient PE sector (World Bank 1983), some of which are among the most efficient firms in the world (e.g., POSCO, see above). The Taiwanese case is even more striking. In 1952, 57% of industrial production in Taiwan was accounted for by PEs and the share remained as high as 46% in 1962. During this period (1953-62), total industrial production in Taiwan grew by 11.7% per annum, a performance which does not fall short of the period 1973-80, when the share of PEs in total industrial production was much lower at below 20% (19% in 1975; 18% in 1980) (see Amsden 1985).

Although we are by no means suggesting that the Taiwanese or
Korean bureaucrats or PE managers are selfless saints, we think preferences are often endogenously formed so that bureaucrats and PE managers may put public interest first (to a large extent) if they operate in such an environment where they are required (say, through traditional cultural values like Confucianism) to regard themselves, rightly or wrongly, as 'the guardian of public interests'.

3.3 The Operation of Public Enterprises (II): The Disciplinary Mechanism

3.3.1 The Argument

Even if there is no principal-agent problem, it could be argued that PEs are very likely to be inefficient because there is no effective way to punish their bad performance. In the case of PEs, dissatisfied customers 'exit' from a badly-performing firm (that is, they stop buying from the firm), which results in the falling profitability of the firm (for the concept of 'exit' as a disciplinary mechanism, see Hirschman 1970; p.4). Falling profitability, in turn, leads to the 'exit' of the shareholders (i.e., the shareholders selling their shares), resulting in a fall in the share price of the firm, which exerts the firm to the possibilities of takeover (see Singh 1971, 1975). Under the threat of the exercise of the 'exit' option by the customers, which can ultimately make the firm bankrupt, the argument goes, the managers are forced to manage the firm efficiently.

PEs are often monopolies, and therefore, dissatisfied customers do not have the exit option. Moreover, PEs are usually immune from the threat of takeover and are free from the threat of bankruptcy. Therefore, PE managers are not likely to be as motivated to improve the efficiency of the firm as their private counterparts who live under the threat of takeover and bankruptcy (Yarrow 1989). In other words, due to their exclusion from the capital market, or to the absence of the 'market for corporate control' for PEs (Yarrow 1986: p.330), PEs do not have the same pressure to remain efficient as PEs. Hence their inefficiencies.

3.3.2 Criticisms

a. Exit and Voice

The view that the capital market is the only disciplinary mecha-

nism for the firm depends on the assumption that the 'exit' option is the only possible disciplinary measure for a badly-performing organisation (including the firm). Nevertheless, in addition to the 'exit' option (which ultimately results in takeover/bankruptcy of the firm), there exists the 'voice' option, where '[the firm]s customers or the organi-
asation's members express their dissatisfaction directly to management or to some other authority to which management is subordinate or through general protest addressed to anyone who cares to listen' (Hirschman 1970: p.4). Thus, even when a PE is not subject to the threats of takeover and bankruptcy, it may well be disciplined through the 'voice' option (for a similar argument, see Aharoni 1986: p.194). Moreover, private ownership per se does not guarantee an efficient functioning of the 'exit' option. Many private monopolies are pro-
tected by natural and man-made entry barriers and therefore customers may not in effect have the 'exit' option open.

And as a matter of fact, it is not true that PEs can never go bankrupt. Public enterprises can go, and have gone, bankrupt, in the form of 'liquidation'. There have been numerous cases of PE liquidation in such diverse countries as the UK, Italy, Israel, the Ivory Coast, Brazil, and Singapore (see Shirley 1983: p.55; Aharoni 1986: pp.63-
4). The truth of the matter is that large firms (be they public or private) rather than public enterprises tend not to be allowed to go bankrupt, as is testified by the numerous cases of state rescue operations, including nationalisation, for large private firms on the verge of bankruptcy (e.g., Chrysler of the USA, Volkswagen of West Germany; also see Aharoni 1986: pp.63-4). The size factor is particularly important in LDCs where the employment situation is often extremely difficult. For example, the Indian government is being invariably obliged to bail out or take over so-called 'sick' large private sector enterprises due to the pressure to preserve employment (Ahlulwala 1987).
b. The Efficiency of the Capital Market as a Disciplinary Mechanism

The supposed virtue of firm discipline through the market for corporate control (i.e., the capital market) has been the linchpin of the arguments for privatisation of nationalised firms in the UK (see e.g., Littlechild 1986). In brief, the suggestion is that even for privatised natural monopolies, where by definition the product market discipline is bound to be inadequate, forces of competition in the capital market, principally through the takeover mechanism, will ensure efficiency. However, this line of reasoning is seriously flawed. First, there are important a priori reasons (the free-rider problem, transaction costs, etc.) which suggest that, even in theory, the market for corporate control may not work 'efficiently'. Secondly and more significantly, empirical research suggests that contrary to the folklore of capitalism, it is not just the 'inefficient' or 'unprofitable' firms which are eliminated by the takeover mechanism and the 'efficient' and the shareholder-wealth-maximising firms which survive. Empirical studies show that selection for survival in the market for corporate control takes place only to a limited extent on the basis of efficiency or the profitability but to a far greater extent on the basis of size. Moreover, on average, profitability of merging firms does not improve after merger. To the extent that monopoly power of the acquiring firm in the product market increases as a consequence of takeover, the evidence is compatible with reduced efficiency in resource utilisation following mergers. This is hardly the picture of the disciplinary role of the capital market conveyed by the proponents of privatisation.6

There are reasons to believe that the situation may in fact be much worse than that. The capital market discipline may not just be inadequate, but it may very well be perverse. On the basis of the above findings, Singh (1971, 1975) had suggested that instead of disciplining large firms whose managers seek growth for empire building or power motives, the market for corporate control may encourage them to seek a further increase in size precisely in order to avoid being taken over. Paradoxically such firms may be able to achieve that end through the takeover mechanism itself by acquiring smaller but relatively more profitable firms (see also Greer 1986, on this point).

Turning from the narrow issue of firm profitability and stock market discipline to the broader concept of 'overall economic efficiency', which must inevitably involve questions of investment and economic growth, Keynes's strictures on the role of the stock market continue to be pertinent and need to be seriously addressed. In Chapter 12 of General Theory, Keynes had observed: 'Speculators may do no harm as bubbles on a steady stream of enterprises. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done. The measure of success attained by Wall Street, regarded as an institution of which social purpose is to direct new investment into the most profitable channels in terms of future yield, cannot be claimed as one of the outstanding triumphs of laissez-faire capitalism ...' (Keynes 1936).

To add to these Keynesian worries which derive from the role of speculation, the volatility of stock market prices and the fact that such prices may not be efficient in the 'fundamental valuation' sense of Tobin (1984), Cosh, Hughes and Singh (1990) suggest that the takeover mechanism may in a number of ways further encourage 'short-termist' outlook on the part of management to the detriment of long-term investment, economic growth, and international competitiveness (for a fuller analysis, see Cosh, Hughes and Singh 1990; also see Dertouzos et al. (1988).

3.4 Concluding Remarks

In the above, we have considered the traditional theoretical case for public enterprises as well as the case against, which derives from certain developments in the theory of the firm and that of industrial organisation. We have found the latter unconvincing even in its own terms. As we have seen, it disregards the problems of 'shareholder collective action', organisational complexities of modern firms, the

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6 There is a large theoretical and empirical literature on these issues. For surveys, see Hughes and Singh (1987) and Hughes (1989). See also Singh (1971, 1975, 1990), Grossman and Hart (1980), and Stiglitz (1988).

7 On these issues, there is again a large literature. See e.g., Tobin (1984), Shiller (1981), Summers (1986), Camerer (1989), Nickell and Wadhwani (1989).
existence of non-selfish motivations of bureaucrats and managers, the manifold problems of reliance on the capital market for investment decisions, and the nature of the market for corporate control. Any argument which does not recognise the multiplicity of human motivation and the institutional complexity of modern economic life should be accepted with a grain of salt.

4. ASSESSMENT OF EMPIRICAL EVIDENCE ON RELATIVE EFFICIENCY OF PUBLIC ENTERPRISES: CONCEPTUAL ISSUES

Before reviewing the existing empirical evidence on the relative efficiency of public and private enterprises, it is essential to examine some critical conceptual and practical issues concerning the measurement of the performance of PEs (for a good introduction to the problems involved, see Nove 1973: Chapter 1).

4.1 Profitability

The most conventional measure of the performance of an enterprise, both public and private, is its profitability. And despite the lack of consensus as to which of the many possible profitability measures (e.g., operating surplus, return on assets, return on equity) should actually be used, profitability is one of the most commonly used performance indicators in the studies of PE performances, not least because it can be derived from the most readily available data, that is, their balance sheets and profit and loss accounts (see, e.g., World Bank 1983: Chapter 8; Shirley 1983; Short 1984; Georgakopoulos et al. 1987; Luke 1988).

4.1.1 Profitability as the Enterprise Performance Indicator

Despite its widespread use in studying enterprise performance, profitability is not a fully satisfactory performance indicator even for private enterprises for the following reasons.

First of all, profitability depends not only on enterprise perform-
established for pure profit reasons, they will be often, if not always, used for (justifiable or unjustifiable) non-profit reasons by the government (see Nove 1973; Millward 1982; Likierman 1984).

First of all, many PEs have been established out of distributional considerations. According to Vernon (1981), many PEs, especially in the ACCs after the Second World War, have been established for the aim of 'shifting economic power from the leaders of big business in the private sector to leaders elsewhere, such as leaders of government or leaders of labour' (p.14). Some PEs have been set up to improve the relative position of a certain region (the Italian PEs in the South) or a certain ethnic group (the Malaysian PEs; see Mallon 1982) (for a theoretical discussion of this problem, see Fernandes 1983).

Second, PEs are often used by the government to achieve some macroeconomic objectives, although the effectiveness of PEs in achieving such aims may be open to dispute (see Rees 1976: p.22; Jones and Mason 1982: pp.28-31; Floyd 1984). PE employment policy has often served as a means to create and preserve jobs in the face of unemployment. PE investment policy has also been used by the government as a counter-cyclical device (see Shepherd 1965 for the British case, where such an attempt was not very successful; Galán 1980, for the Spanish case, where such an attempt was very successful). In inflationary periods, PE pricing policies have often been used as an anti-inflationary device (see, e.g., Millward 1982: p.62).

Third, PEs are often used as a means to promote private industries. For example, PE procurement policies are employed in many instances to boost demand for infant or declining industries.® Lower prices for PE products can have a substantial impact on private profitability, especially when the products are basic inputs like electricity, fertilisers, and steel. Thus, 'if a subsidy given to farmers is granted directly, (a public enterprise) making fertilisers may be profitable; if the same subsidy is given as a reduced price of fertilisers, the firm would show losses that are not necessarily a reflection of its efficiency' (Aharoni 1986: p.188).

Therefore, if PEs have objectives other than making profit, it is not justifiable to use profitability alone to judge the performance of the PEs concerned. Indeed, ideally, 'the process of performance evaluation ought to follow a sequential procedure of identifying the objectives set for the public enterprise, constructing indicators to measure the degree of attainment, and then measuring performance', although in practice, 'objectives are seldom specified in a clear and unambiguous way, objectives may be mutually inconsistent, there are problems in devising satisfactory single- and multiple-good performance measures, and the necessary data are often not available' (Cook and Kirkpatrick 1988: p.11). Hence the dearth of studies which actually do this.®

4.1.3 Using Profitability in Empirical Studies

When it is actually employed in empirical studies, the inadequacy of profitability as the performance indicator is aggravated by the difficulty of conducting a study which controls for the effects of those factors other than ownership which may affect an enterprise's profitability performance. Let us discuss some of these 'intervening' factors.

a. Country-specific Factors

The PE sector of a certain country may be inefficient due to country-specific reasons which are unrelated to ownership per se. For example, PEs in a country may be performing badly due to reasons which apply both to the public and the private firms. It has often been pointed out that the lack of managerial skills has affected the performances of PEs as well as those of PEs in many LDCs. Deficiencies of accounting systems in LDCs are also thought to have affected overall and not just public enterprise performances in those countries. According to a World Bank report (World Bank 1983), 'SOEs (state-owned

® There are, however, a handful of studies which do use multiple criteria (e.g., Killick 1983 and Green 1985), which we will discuss later. But even these studies do not address the important issue of whether the objectives which the PEs are asked to pursue are the most appropriate ones. This major question will be discussed in Section 6.
enterprises; the Bank's terminology for PEs) (as well as private companies (italics added)) are not audited according to uniform standards; more than 70 developing countries have no accounting standards. Trained accountants are scarce, because in many developing countries (outside Latin America) accounting became part of the university curricula only after 1960. Even now there are often no uniform standards of training' (p.82).

Macroeconomic conditions also affect enterprise performance, public and private alike. Therefore, for example, the fact that the PE sector of some countries (e.g., Turkey and Senegal) which broke even or recorded surplus until the early-1970s began to make losses in the late-1970s and the early-1980s, which is taken by the World Bank as evidence of worsening PE performances (World Bank 1983), may be nothing but a reflection of the adverse macroeconomic conditions during the latter period.

Moreover, in a period of adverse macroeconomic conditions, often some large PEs which have virtually gone bankrupt are nationalised to be allowed to remain as a going concern, because they are thought to be too important (often, if not predominantly, for employment reasons) to be allowed to go under. The most well-known examples are the nationalisations of some Western European automobile manufacturers, for example, British Leyland (the UK) and Volkswagen (West Germany in the 1970s). When the macroeconomic conditions of a country are not favourable, the PE sector of the country will include many such enterprises, and therefore it will perform even worse in terms of profitability than it could without such enterprises. For example, in Greece, 43 virtually-bankrupt PEs were nationalised between 1983 and 1987, a period of economic difficulty for the country, which seriously affected the performance of the PE sector as a whole (see Georgakopoulos et al. 1987).

b. Industry-specific Factors

The PE sector may be performing badly in profitability terms simply because it has many enterprises operating in 'wrong' industries. The 'wrong' industries may include industries which are temporarily experiencing trouble, but more importantly declining industries (e.g., coal and ship-building in Western Europe) or infant industries (e.g., many capital-intensive industries in LDCs). If the PE sector includes many firms operating in these industries, which is all the more likely given the pressure on the government to nationalise bankrupt large PEs (see above), it is more than natural for the sector to perform badly in terms of profitability.

c. Firm-specific Factors

PEs may perform badly due to firm-specific characteristics such as size, market power, and age, rather than due to their ownership characteristics. First, PEs tend to be large. And large size may affect PEs positively (if scale economy is significant) or adversely (if scale diseconomy is significant). This is especially true in developing countries where many PEs were established exactly in those sectors where a large-scale investment was necessary but no private investor could finance it due to the underdeveloped capital market (for evidence, see Short 1984; p.143). Secondly, the age of PEs may also affect their performances. Young firms may perform worse than older firms because of their lack of 'learning' (on this point, see Jenkins and Lahouel 1983: p.15), but they may perform better under certain circumstances because of their freedom from antiquated managerial and organisational habits or inertia. And vice versa for the older firms. Thirdly, PEs may be performing well in terms of profitability simply because they have greater market power, and not because they are inherently more efficient. On the other hand, the usually strict government control over the pricing policy of the PEs on the ground that they have significant market power may keep them from raising prices even when it is necessary, and this may appear in the balance sheet as a deterioration in their performances (see Cook and Kirkpatrick 1988: p.16). In developing countries where PEs are more likely to be monopolists or oligopolists due to the small size of the domestic market (relative to the enterprise size), it will be more important to take the market power possessed by PEs in evaluating their performance. There is a large literature on macroeconomic performance of the firms for the advanced economies which indicates that such performance (whether measured in terms of profitability or growth) is influenced by each of the factors mentioned above, i.e., age, firm size, industry the firm belongs to, and market power, among other things (see Singh and Whittington 1968, 1975; Meeks and Whittington 1976; Kumar 1984; Evans 1987a and 1987b). Although there are few
empirical studies for the developing countries, in view of the results from the advanced country studies, and the sound theoretical reasons for the importance of these factors as independent causal influences on firm performance, they clearly must be fully considered in any appropriate assessment of microeconomic efficiency of enterprises, whether public or private, in the poor countries.

4.2 Other Measures of Enterprise Efficiency

In view of the problems discussed above with the use of profitability as a performance indicator for PEs, economists have tried to employ other measures of efficiency. There are basically two groups of such indicators, that is, technical efficiency measures and cost efficiency measures.

4.2.1 Technical Efficiency as Performance Indicator

The most preferred efficiency indicator used in empirical studies of PEs is technical efficiency. The idea here is that, by estimating how much inputs are required to produce a unit of output for different firms – of course, after controlling for factors other than ownership which may affect enterprise performances like country, industry, firm size – one can compare the production efficiency of a firm with those of others. The most desirable method in this line is estimating an appropriate production function. Another popular method is the total factor productivity measure, which is equivalent to the production function method, if the production function is homogeneous, or, on a more practical level, if it is of constant returns to scale – although the assumption of constant returns to scale is difficult to justify in practice (see Millward 1988: p.148).

However, this method may not be readily used because there is no unambiguous way to construct quantity data both for inputs and outputs in the case of multi-product, multi-factor firms, which practically means all modern firms of reasonable size. Constructing quantity indexes is necessary to do justice to the method, because the idea behind the method is to isolate production efficiency (or technical efficiency) from pricing efficiency (or allocative efficiency). When various market imperfections, such as monopoly, exist, value indexes can be misleading.

In the real world, many firms are multi-product firms, and, therefore, it is very difficult to aggregate their outputs. In some cases, products are relatively homogeneous (e.g., cooking oil) so that straight volume measures can be used. For some outputs, it may be possible to convert them into common measures (e.g., different grades of coal into caloric units). However, there is no obvious method of constructing a quantity index for different types of, say, furniture. Although this problem may be overcome to an extent by comparing firms with identical or at least broadly similar product mix, again, there is a problem of quality differences between products of different firms (Parris et al. 1987: pp.148-9). Even for such seemingly homogeneous products as electricity, it has been pointed out that “Californian private electric utilities have conceded that their costs are higher than publicly owned electric companies but argue that their territories are more difficult to serve” (Millward 1982: p.63).10

4.2.2 Cost Efficiency Measures

To overcome the problems due to the lack of quantity data, various studies use cost efficiency indicators by measuring cost per unit of output. However, cost efficiency measures have the following drawbacks. First, input prices are not the same for all the firms. Public and private firms may face different factor prices, for example, subsidised capital and inputs for PEs or lower wage rates for PEs (see Short 1984: pp.142-3; Cook and Kirkpatrick 1988: p.16; MacAvoy and McIsaac 1989: Appendix I). Even within the private sector, firms may face different input prices for various reasons. Different firms may face different input prices because they have different long-term raw material supply contracts. Firms may face different costs for capital equipment with identical physical characteristics because they have respectively purchased them at different points of time (with different interest rates) and in different terms of, say, instalments. Firms operating in different regions may face different wage rates if

10 The comparative study of PEs and PIs in West German life and automobile insurance industries conducted by Flünger (1984) is one of the rare attempts to incorporate the quality dimension, by considering factors like customer complaints.
labour mobility is not perfect. Second, unless the production technology is such that there exist constant returns to scale, comparisons based on unit cost measures do not do justice to firms of different size. This admittedly is a lesser problem than the case of different factor prices, because it may be overcome by comparing firms of similar size, whereas the latter problem requires full information about different input prices which different firms are facing.

4.2.3 General Limitations of Technical and Cost Efficiency Measures

In addition to their respective problems we have pointed out above, the two efficiency measures have the following common drawbacks.

First, as we argued when discussing the validity of using profitability as the performance indicator, PEs may generate externalities in the forms of more jobs, higher aggregate demand, lower inflation rate, higher demand for infant industries, lower input costs for PFs, and so on. If this is the case, even when the unit cost of a PE is higher than that of a comparable PF, or when various productivities of a PE are lower than those of a comparable PF, it is not clear whether the PE is using its production resources in a less efficient way from the social point of view.

Second, technical or cost efficiency indicators at one point in time measure static efficiency only. Although there can be no agreement as to which of the many possible time horizons should be adopted in evaluating the performance of an enterprise (be it public or private), it seems reasonable to suggest that it is necessary to observe the efficiency performance of a PE over a period of time, by using, say, the shift in the cost function or the trend in productivity changes. Studies using cost functions tend not to observe the changes in such cost functions, but some of the studies using productivity measures give some attention to changes in productivity (e.g., Dholakia 1978; Pryke 1980; Krueger and Tuncer 1982; Manasan et al. 1988).11

11 Productivity growth measures will presumably be more important for LDCs, given the fact that the LDCs are likely to have more infant industries, where the learning effect will be more pronounced.

4.3 Concluding Remarks

As seen above, all the performance indicators used in empirical studies of enterprise performance suffer from various measurement problems. Moreover, the fact that PEs tend to generate positive externalities means that it becomes very difficult to estimate their social contribution. This suggests that there is no single fully satisfactory indicator of PE performance. Therefore, a fairer judgement of PE performance may be based on multiple criteria, and not just one or two, especially when PEs are usually expected to serve multiple objectives. This will inevitably make any conclusions from comparisons of PE and PF performances much fuzzier than a lot of people want them to be, but that is the only sensible approach to the problem. The choice of criteria to be employed should be decided upon after considering the specific conditions faced by the industry and by the country concerned. This is because the objectives of individual PEs are not all identical, and because similar PEs in different countries may serve different purposes.

5. EMPIRICAL EVIDENCE ON PUBLIC ENTERPRISE PERFORMANCE IN THE LDCs

5.1 Profitability or Accounting Surplus/Deficit Studies

Even from the studies using profitability, a measure of performance which is inherently disadvantageous to PEs, it is difficult to conclude that PEs in LDCs are invariably inefficient. Even when the profitability of the PE sector is low, it may be performing better than the private sector (the Philippines case during 1981-3; see Manasan et al. 1988). At a more disaggregated level, many PEs run at a profit even in an economically-depressed area like Africa, and some do better than comparable PFs in profitability terms (the Singaporean shipbuilding case; see Sikorski 1989). Of course, this is not to argue that financial performance indicators should be ignored or that there is nothing to be desired for the PEs in LDCs in terms of their financial performance.12

12 An extremely important point to bear in mind here is that the financial surplus of PEs can be improved simply by putting up prices without necessarily improving their "economic efficiency".
Bad financial performances of PEs in LDCs are disappointing, especially when considering that, in many LDCs, PEs were set up as the major means to generate investible surplus in the face of the difficulty of raising substantial tax revenue from the rural area.

5.2 Efficiency Studies

The existing efficiency studies suffer from several drawbacks. First, many of these are static and therefore not particularly appropriate for developing economies, where 'learning' plays an important role. Second, the available studies are biased in the sense that very few studies exist for countries where PEs are deemed to be efficient. Such as they are, these studies do tend to indicate inferior 'static' efficiency performances of PEs. However, the problem is whether these studies compare like with like. Some studies pool and compare vastly different enterprises from different countries or in different lines of activities. Others control for these things by comparing firms with similar technology and similar product mixes, but do not properly consider the effect of firm size. In general, firm size seems to be more important than ownership in determining enterprise performances. In short, as Millward (1988) notes in his review, '[t]here is no evidence of a statistically satisfactory kind to suggest that public enterprises in LDCs have a lower level of technical efficiency than private firms operating at the same scale of operation (italics added)' (p.157). Moreover, various studies show that PEs range from the best practice to the worst, and that PEs often perform far better in terms of the more appropriate dynamic measures of efficiency such as productivity growth.

5.3 Multiple Criteria Studies

We have suggested earlier that there is no single satisfactory performance indicator for PEs, and therefore that it may be desirable to use multiple criteria, not least because PEs are more often than not expected to serve multiple objectives. There are very few studies of this type, mainly due to the lack of reliable data concerning the performance criteria other than financial variables. Notable examples include Killick (1983) and Green (1985). These studies suggest that the evidence is consistent with the possibility that the unimpressive performances of PEs studied are more due to adverse general economic situations in these countries than public ownership.

5.4 Conclusion on Empirical Studies

The most widely-used performance indicator, profitability, was shown to be seriously deficient for assessing PE performance, especially in the developing country context. Given that other widely-used performance measures, e.g., unit cost, productivity, are also not fully satisfactory and in light of the fact that PEs are usually supposed to serve multiple objectives, we have argued in favour of using multiple performance indicators, including, for example, employment creation (or preservation), balance-of-payments contribution, and income redistribution. We also suggested that the choice of performance criteria should depend on the specific characteristics of the individual industry and of the country which the enterprises studied belong to. Concerning the PE performance in the LDCs, there are relatively few satisfactory empirical studies. The studies using profitability measures, by providing highly aggregated data, conceal the fact that there are many individual PEs performing as well as, or even better than, PEs. Moreover, whatever the level of aggregation, there are times and places when PEs as a whole do as well as, or even better than, PEs, even in terms of profitability, which is an indicator inherently biased against PEs. When we look at the studies using efficiency measures, we find that many of them compare firms which are, strictly speaking, incomparable, and that, even when similar firms are compared, when firm size is taken into account, there is no statistically significant evidence that PEs are less efficient than PEs. Again, PEs range from the best practice to the worst in terms of efficiency.

6. HOW CAN PUBLIC ENTERPRISE PERFORMANCE BE IMPROVED?

Although there is no rigorous empirical evidence showing the general inferiority of public enterprises, this does not mean that everything is fine with PEs or that there is no room for improvement. The important
policy question in many LDCs is how PE performance can be improved. The most popular and simplistic answer to this question has been privatisation. However, as is suggested by many authors, and as will be argued below, privatisation may not be the only, let alone the best, or even an acceptable solution to the problems of bad PE performance (for more extensive analyses on the issue of privatisation, see Aharoni 1986, Vickers and Yarrow 1988, Vernon-Wortzel and Wortzel 1989, Rowthorn 1990a; for developing countries, see Aylen 1987, Cook and Kirkpatrick 1988, Commander and Killick 1988, Bienen and Waterbury 1989, Basu 1990; for socialist countries, see Singh 1990, Newbery 1990, Rowthorn 1990b).

6.1 Privatisation

If one agrees with the critique of public enterprises that their bad performance owes mainly, if not entirely, to public ownership, privatisation appears to be the most obvious solution to the (real and alleged) problems associated with PE performance. Literally, and most relevantly to our discussion, privatisation means the transfer of ownership of a going concern from the state or semi-independent public organisations like a public holding company (e.g., OIAG in Austria, ENI in Italy) to private investors, although many people would not hesitate to extend its meaning to include such things as franchise bidding or contracting-out.

Since, as pointed out earlier, there are numerous factors other than ownership which affect the efficiency of the firm, privatisation clearly cannot be the only solution to the problems of PE performances. The degree of competition in the market, size and age of the firm, the state of the industry (e.g., whether it is an infant, mature, or declining industry) are all factors which are important in this respect (see Section 4). Therefore, unless these non-ownership factors which influence enterprise performances are rectified at the same time, privatisation is unlikely to improve their performances. The case studies of the privatisation attempts in the UK (Bishop and Kay 1989; Rowthorn 1990b), Chile (Yotopolous 1989), and in other developing countries (for a summary of the results, see Vernon-Wortzel and Wortzel 1989) indicate that increased competition and organisational reforms (which often happened under public ownership) have been much more important in improving the performances of public enterprises than mere transfer of ownership (see Newbery 1990; Rowthorn and Chang 1993). Moreover, there are practical problems involved in privatising public enterprises. We can classify these problems into two categories, that is, the ones applying to privatisation in general and the ones applying to privatisation in the LDCs.

6.1.1 Problems of Privatisation in General

Many PEs operate in industries with low profitability for various reasons. As we have pointed out, PEs are often those private firms which have been nationalised due to their bad performance. Moreover, some such (ex-private) PEs operate in declining industries, where the profitability is likely to be low without massive restructuring. When the PE put for sale is unprofitable, it is doubtful whether there will be many buyers. In other words, the government wants to sell the least profitable PEs, which private investors are the least willing to buy (World Bank 1987: p.68, Box 4.3).

The most obvious solution to this problem is to improve the performances of such enterprises before privatisation (like the Thatcher government did with the privatised PEs like British Steel and British Airways; see Daring 1989 and Rowthorn 1990b), in order to make them attractive to the potential buyers (see Bienen and Waterbury 1989; Heller and Schiller 1989). However, if the performances of PEs can be improved under public ownership, there is no efficiency reason to sell them, although the government may still want to sell them for other reasons, for example, ideological reasons like in the UK under Thatcher or Chile under Pinochet.

Moreover, it should be remembered that privatisation is not a costless business. First of all, there is the problem of valuation of the PEs put on sale. Often, the assets of PEs have been purchased at subsidised prices, whose value when sold to the private sector is hard to estimate.13 This problem is often aggravated in the LDCs, where there exists no reliable accounting system and there is an acute

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13 The obvious solution to this problem is to use a comparable PF as the benchmark for such valuation, but the problem here is that often there exists no such PF due to the simple fact that many PEs are monopolists.
insufficient to maintain the employment level, if only because it takes
time to train and retrain workers for the new industries. And in this
situation, ‘over-manning’ some PEs for a period of time may be the
most ‘efficient’ alternative available to the government.

Most importantly, privatisation does not necessarily mean that
the government can simply pull out of responsibility. Except for the
PEs set up for pure revenue reasons (e.g., tourist hotel, tobacco
monopoly), most of the now-privatised PEs will have to be put under
regulation, since they either possess market power (e.g., monopoly or
oligopoly) or generate (positive and negative) externalities. Again, it
should not be forgotten that the difficulty of effective regulation has
traditionally been one major reason behind the establishment of PEs or
the nationalisation of PEs.

6.1.2 Problems of Privatisation in the LDCs

a. Stock Market Flotation

Privatisation requires the sale of the shares of a going concern. The
most common measure suggested to achieve this is floating the
shares of a public enterprise in the stock market. However, in the
LDCs, the sale of shares through the capital market is often impossible
due to the underdevelopment of the stock market (World Bank 1987:
p.86, Box 4.3). Actually, many developing countries do not have
capital markets of any sort. For example, in Sub-Saharan Africa, as of
the late-1980s there existed only four stock markets, that is, Lagos,

Even in countries where there are stock markets, they are often so small
that they cannot raise enough funds to purchase any substantial
numbers of PEs, which tend to be the largest firms in many LDCs. In
this context, it should also be remembered that the underdevelopment
of capital markets will mean that, even when it can be sold, a large ex-
PE may not become fully subject to the discipline of the capital market,
because the threat of takeover bids will be minimal, given the difficulty
of raising large funds (on this issue, see Singh 1990).

Moreover, even when it is achievable, diffused sale of shares
may create more problems than it solves. The large number of
shareholders created by the diffused sales militates against the effective
monitoring of managerial behaviour by the shareholders, because

shortage of qualified accountants. Thus, valuing many PEs for an
extensive privatisation programme may take up substantial valuable
time and resources of the government (see Bienn and Waterbury
1989). Second, there are costs involved in flotation and underwriting
for the shares of the PEs which are sold. And in developing countries
which are attempting privatisation mainly out of budgetary reasons,
this can constitute an obstacle to actual privatisation.

More importantly, it should be pointed out that selling off PEs
carries an opportunity cost in the sense that the future income streams
from those enterprises are foregone by the government. In the cases of
those PEs which were mainly serving a revenue-raising function (e.g.,
alcohol and tobacco monopolies), this is obvious. Even when the PEs
concerned were making losses, it is not obvious that selling them off
will actually improve the budgetary situation. If such enterprises have
been used as a means to subsidise consumers (e.g., subsidised public
transport) or private producers (e.g., subsidised electricity or ferti-
liser), even if they are sold, these subsidies may still have to be
provided. This means that taxes have to be raised to finance the
subsidies. And there is no guarantee that running the tax/subsidy
scheme is going to be less costly than doing it through a PE, because
such a scheme would impose costs of information collection, tax
collection, and monitoring for tax evasion or false reporting from the
recipients of subsidies. It should be remembered that one important
reason for setting up PEs is to save the often prohibitive costs involved
in running tax/subsidy schemes.

Of course, it may still be argued that privatisation is necessary
because non-commercial objectives like subsidies to particular groups
are better served through other policy measures than through PEs.
Although we do not have the space to do justice to this complex issue,
let us take the case of employment creation (or preservation) through
PEs. It is often argued that creation of employment per se is not a
suitable objective for the PEs to pursue, and that employment is best
promoted through other governmental measures, e.g., macroeconomic
policy. Stated in this way, the argument seems unexceptional. How-
ever, in practice, the typical situation, whether in an advanced or a poor
economy, is much more complicated. For example, in a period of rapid
structural change within the context of an economic crisis like the
1970s and the 1980s, macroeconomic policies on their own would be
the individual costs of a tighter monitoring (the costs involved in collecting information, etc.) may outweigh the individual benefits from it (increased share price and dividends due to improved performance). This apparently makes selling the public enterprise to a small number of individuals, or even to a single individual, a better option.

b. Sales to Small Number of Individuals

It is not often a feasible option for a developing country to attempt to sell many PEs to a small number of individuals, as there may not be enough rich individuals who are able to buy them all. Actually, the widespread public ownership in the LDCs, and especially in Sub-Saharan Africa, has been partly due to the lack of private capital big enough to start up modern industries. Moreover, this method may raise serious political opposition in the LDCs, because the sale of PEs, which often are the biggest enterprises in these countries, to a small number of individuals can easily be seen as aggravating the already serious inequality in the distribution of income and wealth. Also, there is the danger that privatisation by a sale to a small number of individuals may be used as a means to promote “crony capitalism” by selling PEs at undervalued prices to individuals who are politically well-connected (Commander and Killick 1988).

c. Sales to Foreign Interests

The underdevelopment of capital markets and the lack of individuals who are able to buy the often-large PEs have led to the suggestion that the PEs be sold to foreign interests. Although purchases by foreign interests may help the troubled PEs to acquire advanced managerial techniques and production skills more easily (as far as they happen to be the firms within the same or similar industry), or enable them to make major new investments necessary for an improvement in their efficiencies, they may also create several problems. First of all, as pointed out earlier, sale to a foreign interest does not solve the acute principal-agent problem that public enterprises are all alleged to have (of one more layer of delegation – the public-ministers-managers – compared with private enterprises). That is, the sale of a PE to a foreign firm will simply substitute one level of delegation (ministers-managers) with another one (headquarters-local managers), thus leaving the number of levels of delegation concerning the now-foreign-owned ex-PE unchanged. Moreover, in developing countries where economic and political situations are often volatile, foreign capital may just leave the country in the face of short-term adversity in economic and political conditions with detrimental long-term consequences. Actually, the fear of footloose multinational capital was one of the most important reasons for nationalisation in many developing countries. In other words, sales of major enterprises to foreign interests will carry a big cost by making it difficult for the state to control them in a way that fits the national economic developmental needs.

6.2 Other Measures

In view of the many problems associated with privatisation as a means of improving PE performance, what are the alternatives? We briefly consider below some of these measures without claiming to be comprehensive.

6.2.1 Organisational Reforms

a. Clarifying the Objectives

PES are usually required to serve multiple objectives. Of course, serving multiple objectives is not necessarily bad, because these activities may generate beneficial externalities (for the discussion, see Sections 3 and 4). However, more often than not, it is not clear what exactly the objectives of a PE are or what the priority between the potentially conflicting objectives is. And such confusion often seriously compromises the performance of PEs. The following changes can be made in this regard (see Vernon-Wortzel and Wortzel 1989 for a theoretical discussion; for some examples see Trivedi 1988, Arcirio 1988, and Song 1986). First, it should be made clear which objectives the PE concerned is supposed to serve. Second, it may be necessary to reduce the number of objectives served by the PE concerned, because pursuing too many objectives may stretch the managerial resources, which tend to be scarce in the LDCs, and hence damage the performance of the firm. Third, in cases when multiple objectives are to be served, it will be necessary to assign priorities amongst the objectives, given that some of these objectives may be achieved only at the cost
of others (e.g., a counter-cyclical investment strategy may not be compatible with high profitability).

b. Improving Information Collection

As we mentioned in our previous discussion, some countries have lacked even the most basic information as to the basic positions and behaviours of their PEs. For example, before its public enterprise control reform in 1979, the Brazilian government did not even have consolidated information on the earnings, spending or debt of its public enterprises (World Bank 1983: p.80, Box 8.4). The Senegalese case before the introduction of a French-style contract system in 1980 was even more dismal. Many PEs lack serious information on their own operations, not to speak of basic corporate planning (Trivedi 1988). Given the lack of information owned by the regulating agencies, it seems surprising that some of the public enterprises in such countries have performed well at all. Given that the acquisition of information on the operations and the behaviour of PEs is the first step to exercise control over them, it seems to be an urgent task for the LDCs to establish some informational base both at the individual PE level and at the governmental level.

c. Incentive Reforms

One of the common criticisms of PEs is that their managers and the workers do not have adequate incentives (rewards and punishments) to perform well.

On the reward side, linking remuneration to performance is possible and to a degree practical for both managers and workers, although the following two points should be noted. First, it is not possible to establish a strict link between effort and outcome. For the managers, it is difficult to know whether the improved (or otherwise) performance of the firm is due to better management or to factors beyond their control. For the workers, when they work as 'teams', it is not easy to isolate the efficiency consequences of an individual worker's increased effort. Second, remuneration need not be pecuniary, as is often supposed. For example, the high status provided by the fact that they work in a PE, which is often among the largest firms in the country, may compensate for their lower pay.

On the managerial punishment side, it will be necessary to eliminate 'soft budget constraints'. Of course, in hardening the budget constraints, the positive externalities generated by the PE in question should be taken into account. On the workers' punishment side, the 'iron rice bowl' enjoyed by some PE sector workers in some LDCs should be broken. This is not to argue that workers should get no protection from the dangers of unemployment and the consequent deprivation, but to argue that nobody should be allowed to have a quasi-property right in a particular job, which can obstruct the shift in the employment pattern necessary for an efficient structural transformation of the economy.

d. Lessening the Monitoring Burdens on the Government

Another important way to improve PE efficiency is lessening the burden on the agencies which are supervising the public enterprises, which are already laden with a multitude of tasks. Although it is often suggested that actually the bureaucrats may choose to be in an apparently 'overburdened' position - because the motives of the bureaucrats are such that they want to expand their seigniorage (according to Niskanen's theory of self-seeking bureaucrats) - it is clear that such situations can be detrimental to the monitoring activities of the ministries.

The creation of a special agency totally devoted to the monitoring of PEs is one frequently recommended solution. The creation of a Special Secretariat for Control of the State Enterprise in Brazil is a good example (World Bank 1983: p.80, Box 8.4). Concentration of the monitoring responsibility in one agency is another way of dealing with this problem - the concentration of such power in the Board of Audit and Inspection in Korea being an example in this case (see Song 1986). Reducing the number of agents to be monitored through means like the mergers of PEs in similar lines or the creation of public holding companies, as is actually practised in many advanced and developing countries, can also be helpful.

6.2.2 Increased Competition

In the discussions concerning privatisation, it has been frequently pointed out that 'privatising monopolies which face little
competition...has relatively little impact on efficiency, compared to liberalising industries which are potentially competitive' (Newbery 1990: p. 9). And in practice, in many developing countries with large public sectors, often the lack of product market competition leads to the abuse of trade union power or managerial slack and inefficiency, which are not only economically undesirable but also socially unfair to the public at large and to the vast majority of workers in the unprotected informal sector. In such circumstances, the promotion of competition is often more important than changing ownership title for the improvement of PE performances.

There are several possible avenues for such competition. First, competition can come from other public enterprises. The improvement of rail service in Britain following the introduction of competition from the government-owned bus company is a good example (Rowthorn 1990b: pp. 7-8). Secondly, the competition can mainly come from domestic private firms. The good performance of the Italian publicly-owned steel-maker Finender and the French auto-producer Renault for the last few decades can at least partly be explained by the rather fierce competition from domestic private firms (Ayub and Hegstad 1986: p.18). Thirdly, the competition can also come from competitors in the export market. The examples here include CVRD of Brazil (iron ore), OCP of Morocco (phosphates), ICL of Israel (chemicals), HMT of India (machine tools) (Ayub and Hegstad 1986: p.18). POSCO, which we discussed above, is another good example where competition in the export market was important in increasing productivity. Lastly, import liberalisation may be a possible way of increasing competition, although the applicability of

14 It is important to emphasise that such monopolistic abuses are not the monopoly of the public sector. They are as ubiquitous in the private monopolistic industries.

15 'Following the deregulation of long-distance road passenger transport in Spain, there arose fierce competition for long-distance transport between the government-owned bus company NBC and the government-owned railways IR. This competition forced the railways to improve their service in a variety of ways and led to a far more flexible pricing structure (off-peak tickets, etc.). These competition-induced improvements, it must be noted, occurred against the background of extreme capital starvation for the railways. If competition had been accompanied by an adequate level of investment in the railways, the benefits of competition would have been considerably greater' (Rowthorn 1990b: pp. 7-8).

the strategy will be limited by the fact that many PEs in developing countries, still being at an ‘infant’ stage, will not be able to withstand foreign competition. More importantly, at the macroeconomic level, there may be adverse balance-of-payments implications of such competition. Therefore, other things being equal, domestic competition should in general be preferred to foreign import competition (see, further, Singh and Ghosh 1988 on this point).

6.2.3 Political Reform

In many LDCs, public enterprises constitute the major source of manufacturing employment, which tend to provide higher remuneration than alternative employment sources do. Oftentimes, they also constitute the major source of subcontracting for private sector firms. Given the number of jobs and the size of the funds involved in the operation of the PEs, it is no wonder that public enterprises in many LDCs have been used by the rulers as a means to redistribute income to politically favored groups, for example, through managerial appointment policies, employment policies, politically-decided contracts.

Such ‘clientelist’ use of PEs has been more acute in developing countries with a weak state, which does not have other sources of legitimisation other than outright purchase of political support (Khan 1989). In these countries, the operations of PEs become subject to short-term political pressure and lobbying, resulting in poor management and monitoring. The examples include the abuse of PEs as tools for patronage politics in some African countries (Sandbrook 1985 and 1988; Bienen & Waterbury 1989) and the establishment of some Malaysian PEs for the purpose of redistributing income from the economically-dominant Chinese community to the politically-dominant but economically-disadvantaged Malay community (Mallon 1982).

If the establishment and the operation of PEs, for whatever reason, constitutes an integral part of clientelist politics, it becomes difficult to expect the improvement of PE performance through ‘policy’ solutions, be it privatisation, organisational reform, or macroeconomic remedy. Economic problems, in other words, are never completely technical in the sense that they are ‘politics-free’,
and are the question of political economy (on this point, see Rowthorn and Chang 1993). Thus seen, in many LDCs, an improvement in PE performance would not be forthcoming simply through technical formulae but would require a political reform with a view to nation-building, a process through which the now-developed capitalist countries had grown out of their politics of patronage in the mercantilist period.

7. CONCLUDING REMARKS

In this chapter, we have examined three main questions, that is, whether there are reasons why public enterprises should be less efficient than private enterprises; whether public enterprises, especially in developing countries, are really inefficient; and what are possible remedies for such inefficiencies, if they exist at all. What we ended up with in the process of answering these questions is a very complex picture, which involves various technological, behavioural, organisational, institutional, and political factors. The sources of bad (or good) public enterprise performance are extremely diverse and therefore the remedies are also diverse. And engineering those changes which are supposed to deliver improvements in the performance of public enterprises is not simply a question of pure economics, but fundamentally one of organisation, institution-building, and political economy.

BIBLIOGRAPHY


