



Privatisation

Global trends and implications of the Singapore experience

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Abstract *This paper begins by describing the trends and drivers of privatisation, as well as the benefits derived from privatisation programmes. It then considers the ownership debate, i.e. whether superior performance of state-owned enterprises (SOEs) can be achieved under state ownership. While empirical work shows that private ownership is associated with superior performance, the experience of Singapore is a clear example to the contrary. Singapore Telecom is described as a case where state ownership combined with several contextual factors has led to sustained world-class performance, in spite of global trends such as deregulation and technological advancement which create turmoil and reduce profitability in the telecommunications industry. These contextual factors include a clear corporate strategy combined with an efficiency focus by Singapore Telecom, a long-term national policy of infrastructure improvement as a strategic resource for national economic development, and a robust economic and regulatory environment. The implications of the Singapore experience are then discussed.*

Trends and drivers of privatisation

The push to expand state ownership in the 1960s and 1970s has met with a radical reversal in the 1980s, where governments have progressively reduced their involvement in service provision by increasing private sector involvement. Originating in Chile, the UK and New Zealand, privatisation has gradually taken on global dimensions. It has been estimated that during 1984-1995, global infrastructure privatisation projects averaged about US\$60bn in annual value (So and Shin, 1995); and that during 1995-2000 privatisations are expected to take place in more than 100 countries and raise over US\$200bn (*The Economist*, 1998a). The main types of enterprises privatised are in the areas of power generation, telecommunications, water provision and transport services, with significantly higher private sector involvement in the first two (Price Waterhouse, 1996).

Privatisation in broad terms involves the transfer of ownership and/or control of state-owned organisations to private investors. More specifically, privatisation can take several forms: it can be complete or partial, in terms of the amount of equity sold to private investors; it can be full or selective in terms of which parts of the state enterprise are sold; it can involve liberalisation, where a competitive climate and market forces are promoted in place of the previous monopolistic or oligopolistic climate; and last, it may or may not involve transfer of ownership, where the latter can be achieved through

methods such as leasing of state facilities for a fee, bringing in external management, or contracting out the provision of a particular service.

This wave of privatisation has been brought on by several factors, but a primary factor is the generally disappointing performance of state-owned enterprises (SOEs) in terms of efficiency and profitability. Developing countries have relied more on SOEs than developed ones, and in many cases SOEs became a heavy fiscal burden on the state. In addition, the growth of the private sector in many developing countries has been slowed down through government regulation of industries and the directing of scarce credit to inefficient SOEs (Kikeri *et al.*, 1994). In addition to poor SOE performance, privatisation activity has been influenced by certain variables or “drivers” (Table I).

The impact of privatisation

While there are critics of the general idea of uncritically applying management principles and techniques to the public sector (Mintzberg, 1996; *The Economist*, 1996), there is now a considerable body of evidence attesting to the effectiveness of privatisation and deregulation in improving the performance of SOEs. Country evidence from the USA, for example, shows that deregulation in

Ideological shifts	Collapse of Marxist ideologies and the movement towards free market economies
Donor pressure	Donor agencies and nations have been exerting increasing pressure on governments to encourage private participation in infrastructure development
Regional bandwagoning	States which do not embark on privatisation programs risk becoming technologically obsolete compared to neighbouring states/regions which have done so
Fiscal imperatives	High subsidies to inefficient SOEs became a burden on scarce government resources and intensified the risk of economic stagnation
Globalisation of commerce	Global competition further exposed the inefficiencies of SOEs and increased the pressure for improvement
Globalisation of finance	The easier availability of global funds as well as the growth of local capital markets facilitate the finance of large privatisation projects
Institutional capacity	The appointment of state boards to assist privatisation and international agencies' encouragement of private investment has aided the privatisation process
Growing middle class	A growing middle class has increased the demand for premium goods and services in such areas as communications and transportation, thus encouraging private sector involvement in their provision
Technological advancement	The private sector now has the knowledge to design and manage infrastructure efficiently, as well as the capacity to operate beyond the boundaries of national networks, e.g. as in the case of telecommunications

Source: adapted from Price Waterhouse, 1996

Table I.
Drivers of privatisation

four industries (stock brokerage, trucking and railways, airlines, and telecommunications) resulted in higher productivity through more competitive pay scales and changes in work rules, as well as lower prices for the consumers (Bailey, 1986). A recent report by the US General Accounting Office on the privatisation experiences of six states (US General Accounting Office, 1997) indicates that the reported benefits of such programmes (mostly contracting out functions previously carried out by the state) include substantial cost savings, higher revenues and improved service to citizens. Contracting out is the major means of privatisation in the USA, presenting significant opportunities for private companies to reap the benefits (Goldsmith, 1997). Research in Canada, moreover, based on information on a total of 370 private companies, mixed enterprises, state-owned enterprises and co-operatives, has shown that private companies generally have higher performance than the rest in terms of profitability and efficiency (Vining and Boardman, 1992).

A World Bank study of the effects of 12 privatisation programmes in four countries showed that productivity rose in nine cases and remained constant in three cases; high capital investments took place; workers as a whole were not worse off, and in three cases were even better off through equity participation in the privatised firms; and that consumers mostly received better service and lower prices, except in five cases where prices rose to reflect cost structures more realistically (Galal *et al.*, 1994). Another extensive study of the outcomes of 61 privatised enterprises in 32 industries in 18 countries found that the profitability, sales, operating efficiency, and capital investment of privatised enterprises increased significantly after privatisation, and there was even a slight increase in employment (Megginson *et al.*, 1994).

But are firms more likely to be privatised if they are more efficient and profitable, or does privatisation bring about higher efficiency and profitability? Early assessments of the UK experience, for example, showed that the output, profits and margins of privatised enterprises have indeed increased, and their employment fell, but that trends in this direction were occurring before privatisation, so that the direction of causality was unclear (Bishop and Kay, 1989). More recent UK evidence, however, shows that privatisation has indeed resulted in improvements in public finances, service improvements to the customers, reduction in prices except in a minority of cases, as well as improvements in occupational safety, and that such improvements were unlikely to occur had it not been for privatisation (*The Economist*, 1998a).

It is now widely recognised that privatisation, if implemented well, can have multiple direct and indirect benefits not only for the enterprises themselves but also for the state as a whole (adopted from Durchslag *et al.*, 1994) (see Table II).

The ownership debate: does ownership matter?

Early assessments of privatisation were not clear-cut with regard to the impact of privatisation on performance. A key issue was whether superior performance could be attributed to the different market environment that SOEs and private companies face, as opposed to their ownership; the implication

Direct benefits

Delivery of vital infrastructure quickly
 Generation of funds to support debt reduction or redeployment of investment into other social programs
 Improvement in the efficiency of public sector construction, operation, and maintenance
 Upgrading of infrastructure quality through the use of world-class equipment and new technologies
 Rationalisation of complex and restrictive regulators
 Improved economic efficiency via transparent prices and well-quantified cross-subsidies

Indirect benefits

Attraction of industrial and capital investment due to improvements in transport capacity and cost
 Enabling of other competitiveness initiatives (e.g. regional finance centre, export promotion, software)
 Accelerated development of capital markets
 Improved public policy through targeting of cross-subsidies and development of mechanisms to monitor their effectiveness
 Potent signalling of the seriousness of the liberalization programme
 Redistribution of wealth if special equity allocations provided to designated groups

Table II.
Benefits of
privatisation
programmes

being that a more competitive market climate was responsible for superior performance of private companies, rather than the fact that they were privately owned (Kay and Thompson, 1986). It has also been suggested that the problem of state-owned enterprises is not their ownership but rather the absence of explicit goals and objectives focusing on efficiency, as well as organisational cultures and control systems to support these goals and objectives (Wortzel and Wortzel, 1989).

Neoclassical economic theory suggests that efficiency is mainly a function of market and incentive structures rather than ownership. In theory, in other words, it does not matter who owns the enterprise, as long as it operates in a competitive market without barriers to entry or exit, the owner gives autonomy to management and instructs management to follow the signals of the market, and last, management is rewarded and sanctioned on the basis of performance (Nellis, 1994).

While in theory states can still own enterprises and ensure that the above conditions hold, in practice there are two main problems. First, the full set of the above conditions is rarely met, and second, even when it is met, it is not sustained. Politicians have social objectives as well as commercial ones, which could lead to the inefficient use of resources in state-owned enterprises (Boycko *et al.*, 1996). Often in times of crisis governments may give genuine autonomy to managers and place commercial objectives at the top of the agenda, but as soon as the crisis fades, commitment to managerial autonomy and primacy of commercial goals could fade as well (Kikeri *et al.*, 1994). While the existence of social goals is morally desirable, one has to ask: under what conditions would such goals be better achieved – under public or private ownership?

Advocates of the position that ownership matters point to the fact that private firms usually outperform public firms; the World Bank has found, for example, that rates of return on equity invested in public industrial or commercial enterprises are about one-third of those in the country's industrial private sector. Empirical work, moreover, shows convincingly that privatisation involving ownership transfer substantially improves performance (e.g. Megginson *et al.*, 1994; Galal *et al.*, 1994; Vining and Boardman, 1992). Given the above considerations, there is a strong case that ownership matters; in other words, private ownership will in general lead to superior performance both in financial and service quality aspects compared to public ownership.

While SOE inefficiency and lower profitability than private enterprises has been the general pattern, in some cases SOEs have been highly efficient and deliver operational surpluses, as for example in Singapore. These cases constitute a challenge to the widely held view that private ownership is an indispensable prerequisite to superior performance, an issue which will be discussed further down.

Singapore's infrastructure policy

Singapore's national strategic focuses have evolved continuously from a mindset of survival in the 1960s to driving for efficiency in the 1970s, to focusing on people development, productivity and value-added investments in the 1980s, to anticipating and embracing continuous change in the 1990s (Guan, 1997). Singapore's overall strategy has been to leverage its natural advantage of strategic location by establishing world-class transportation and materials-handling facilities, extend this concept to the financial and service domains by developing a sophisticated telecommunications and IT infrastructure to continuously improve workforce skills, and monitor and absorb global technological developments (Sisodia, 1992), acting as a rapid adopter of tried-and-tested technologies to minimise adoption risk (Singh, 1995).

Singapore has achieved high rates of economic growth averaging more than 8 per cent annually from 1960 to the mid-1990s (Singh, 1998) and national infrastructure has played a key part in such development, given that infrastructure quality in general is a major determinant of economic development (Durchslag *et al.*, 1994). Telecommunications infrastructure, for example, is the third most important factor in the location decisions of multinationals, after political stability and a skilled workforce (*The Straits Times*, 1997b), and telephone line density is positively correlated with gross national product per capita (Beardsley and Patsalos-Fox, 1995).

Information infrastructure in particular has been the cornerstone of Singapore's development, where a well-planned, proactive approach has been followed; a comprehensive *National Information Technology Plan* was issued in 1986 by the National Computer Board, the board responsible for setting and implementing Singapore's IT policies. Subsequently, a National Information

Technology plan, *The IT2000 Report: A Vision of an Intelligent Island* (published in 1992) called for the creation of a National Information Infrastructure aimed at making Singapore a more efficient switching centre for goods, capital, information and people and to achieve further improvements in productivity (Knoop *et al.*, 1996). The Singapore government has viewed the telecommunications infrastructure as a national asset, aiding its early development by providing financial support, protection from market forces and managerial talent, while urging the adoption of competitive rates. At a later stage, the state did not provide public funds to Singapore Telecom, in order to enforce market discipline on it. In addition, there has been gradual privatisation in order to provide Singapore Telecom with greater flexibility in dealing with technological challenges and global competition, and liberalisation in order to provide it with controlled competition (Singh, 1995).

The telecommunications industry

Trends of deregulation, technological advancement and privatisation are causing turmoil in a once stable and highly profitable industry. The advent of competition is exerting continuous pressure on prices with margins falling as a result, and necessitates the introduction of value-added services to sustain volume and profitability. Asia has not been spared these trends, which are global and sweeping in nature.

Technology is advancing, with new services such as Internet telephony threatening to gain substantial market share in domestic and international voice traffic at the expense of established telecommunication companies. The pressure will most be felt in international traffic which produces only an estimated 12-15 per cent of the revenues of the big operators but 30-40 per cent of profits (*The Economist*, 1995). Internet telephony is forecast to account for as much as 15-30 per cent of the market for voice and fax calls within five years. Internet telephony is inexpensive, and allows segmentation of the market, where consumers can choose the level of service they require and be charged accordingly. It also enables the provision of several value-added services to consumers, for example real-time billing, cheaper video-conferencing and shortly unified messaging. In Asia, Internet telephony is said to be a "regulatory minefield", with some countries banning it, others embracing it and some unsure as to how to handle it (*Asian Wall Street Journal*, 1998).

Such technological improvements are a huge threat, but also an opportunity for the companies which can be entrepreneurial and innovative enough to invest in and develop further this technology, in an industry shifting from proprietary to open standards, as happened to the computer industry in the 1980s. To become effective competitors in such conditions would require a cultural change for most telecommunication companies, historically operating in a slow-moving, monopolistic and protectionist world. "The idea is to create a company run by people who think in terms of a world where the ratio of performance to price doubles every 18 months, and where deals have to be snapped up at once" (*The Economist*, 1997). Such a cultural change is difficult

to achieve; British Telecom, for example, has not made a serious effort at such change, until its dominance in international phone traffic in the UK has been seriously threatened during the last two years (*The Economist*, 1998b).

The huge overcapacity in telecoms, intensifying competition, as well as the Asian financial crisis, are increasing the pressure for consolidation in the Asian telecoms industry, where stronger companies may acquire weaker ones, especially newer competitors recently awarded telecoms licenses. One interesting outcome of the crisis is that it gives some breathing space to the established players, since challengers find it much harder to realise their expansion plans (*Asian Wall Street Journal*, 1998).

The above trends in the telecommunications industry are expected to continue in the future, with even more substantial effects on the telecom companies. The Asian competitive climate in this industry differs in some respects, such as the vast infrastructural investments that have to be carried out in order to improve teledensity rates and service availability and quality. Future trends in Asian telecommunications include those listed in Table III (Bank of America, 1996).

Singapore Telecom and its privatisation

The Singapore Telephone Board dealing with internal telecommunications and the Telecommunications Department dealing with international telecommunications were merged in 1974 to establish the Telecommunications Authority of Singapore (TAS) as a statutory board. In 1982 the Postal Services department was also merged with TAS to achieve further efficiencies in operations. In 1992 TAS became an oversight government body with responsibilities to regulate and promote the telecommunication industry in Singapore, and Singapore Telecom was incorporated to undertake telecommunications operations. Singapore Telecom shares were quoted on the Singapore Stock Exchange in 1993; the government remains the largest shareholder, holding about 80 per cent of issued capital (Singh, 1998).

Singapore Telecom operates under very different conditions from the telecommunications providers in the rest of Asia; a comparison with the general characteristics of the Asian telecoms environment will illustrate this (see Table IV) (adopted from Bank of America, 1996).

Strong growth of fixed line and mobile telecommunications networks due to low teledensity rates

Acceleration of deregulation and privatisation and the resulting increased competition

Concession/licensing periods of 15-25 years utilising the Build-Transfer-Operate model or a variation thereof

Strong demand for debt and equity capital to finance expansion

Industry rationalisation through mergers and acquisitions

Technology trends and their pricing impact

Table III.
Trends in Asian
telecommunications

Singapore, on the other hand, has high teledensity, high income levels and lower income disparity, high quality in fixed-line services, higher demand for specialised features, lower vulnerability to credit risks and regulated but falling tariffs (the average international call charge declined by 42 per cent between 1993 and 1998 (Singh, 1998).

Singapore Telecom has followed a clear strategy, which involves focusing on short- and medium-term profitability, pursuit of globally competitive service and efficiency standards, and high investment in proven technologies. More recently, it has also undertaken diversification in IT and value-added services in order to sustain its growth and profitability levels, it has initiated foreign investments in several countries (52 ventures in 21 countries by mid-1997; with few exceptions, these have not been profitable (Singh, 1998)), and has engaged in strategic alliances in order to gain market entry and acquire technological skills (Singh, 1995).

Privatisation is often carried out to raise private capital for infrastructural development, to ease the fiscal burden of the state, and to improve the quality of service and reduce prices for consumers. In Singapore's case, however, these traditional objectives of privatisation were not the primary motivating factors, as SingTel has been performing on a par with world standards even without privatisation. Given this fact, as well as the unique situation of a small country which lacks natural resources and which has a strategic interest in ensuring the development and control of its telecommunications sector, together with the perceived potential of negative social implications resulting from the uncontrolled flow of information from foreign countries to Singapore, researchers have endorsed only limited privatisation which would ensure the continuing control of telecommunications infrastructure by SingTel (Kuo *et al.*, 1989).

The privatisation of Singapore Telecom was part of a wider effort aimed at reducing the state's involvement in business, following the report of the Public Sector Divestment Committee in 1987 (Tan, 1992; Low, 1995). The main aims of privatisation in this context were to increase SingTel's flexibility, and prepare it for the challenges of global competition and technological advancements (Singh, 1995). Another objective was to stimulate the development of the Singapore stock market which at that time was overly dependent on the

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- Extremely low teledensity
 - Lower income levels and higher income disparity
 - Lower quality and availability in fixed-line services
 - Higher concentration of residential users
 - Less demand for specialised features
 - Higher vulnerability to credit risks
 - Highly regulated tariffs
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Table IV.
Characteristics of the
telecommunications
environment in Asia

Malaysian Stock market and lacked both depth and scope (Kuo *et al.*, 1989; Toh and Low, 1990a, 1990b; Low, 1995). On 1 November 1993, 1.1 billion shares were offered for sale being 7.3 per cent of SingTel's share capital. Three classes of shares were offered, a maximum of 600 A shares at S\$1.90 each to Central Provident Fund members (a form of social security in Singapore), a maximum of 1,000 B shares at S\$2.00 to Singapore citizens, and C shares without a fixed number at S\$3.60 per person.

Privatisation is a multi-faceted process that can involve various aims and options. It can be seen as a continuum, as shown in Figure 1 (adopted from Durchslag *et al.*, 1994. BOT is an acronym for build-operate-transfer, and BOO is an acronym for build-operate-own. PSU is an acronym for public sector unit).

SingTel's functioning and privatisation has been multi-faceted, involving several of the above options. Over the years, for example, several measures were taken to improve performance and create a more efficient organisation (phase 1), while since 1989 there were liberalisation measures intended to introduce competition in a phased and controlled manner (phase 3), before the sale of equity was finally initiated in 1993 (phase 5).

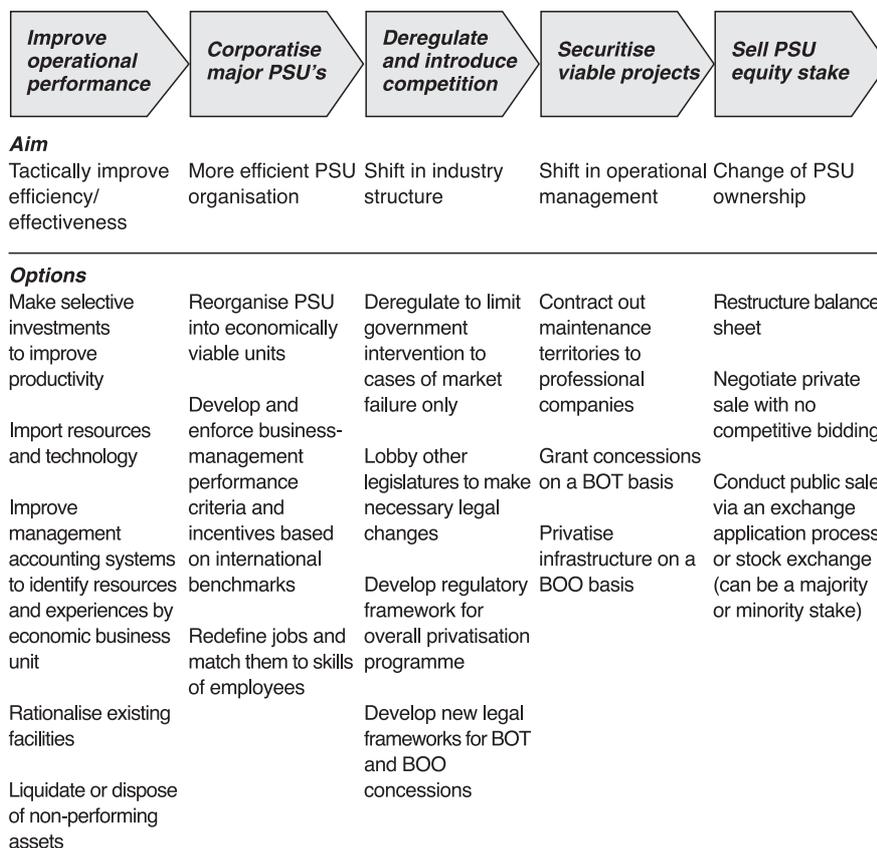


Figure 1.
A continuum of restructuring options

After privatisation, Singapore Telecom has continued to deliver high returns despite the still regulated fixed-line market[1] and majority ownership by the government. For the two-year period from 1995 to 1997, its return on average shareholders' funds has been 29 per cent, its return on average total assets was 19 per cent, and its operating return on turnover was 48 per cent. In addition, its operating return per employee rose from S\$177m to S\$195m, and the turnover per employee from S\$359m to S\$414m (www.Singtel.com). Profits rose by 12 per cent to S\$1.89bn for the year ended 31 March 1998, despite the introduction of competition in the mobile market during April 1997, and falling international call rates (however, the Chairman of Singtel warned that the group has begun to see the effects of the economic crisis and that the growth rate for next financial year is likely to slow down to below 10 per cent). Singtel's share price has generally outperformed the market, which is in line with research showing that the share price of privatised government-linked companies in Singapore significantly outperforms non-government linked companies after privatisation (Tan *et al.*, 1993).

Singtel continues to deliver in terms of quality and service. The quality of Singapore's telecommunications infrastructure was judged as the world's best in the World Competitiveness Report issued by the Institute of Management Development and the World Economic Forum in Switzerland, every year between 1991-1994 (www.Singtel.com; Sisodia, 1992). Singapore's infrastructure has ranked first in a survey of ten South-East Asian countries in 1997 (*The Straits Times*, 1997a). It has recently ranked third in the Asia-Pacific Telecommunications Index 1998, issued by the National University of Singapore's Centre for Telemedia Studies, closely following Japan and Australia. The main reason for being ranked third is its zero score in terms of choice, since Singapore Telecom still has a monopoly in the domestic fixed-line market; this monopoly will cease on 31 March 2000, when new entrants will start competing in this market (*The Straits Times*, 1998b).

Conclusions and implications of the Singapore experience

The Singapore experience has several practical and theoretical implications. First, there should be clear policy objectives of what privatisation is expected to achieve. Given Singapore's economic and technological context, liberalisation and privatisation were implemented to prepare SingTel for global competition and technological challenges, and to stimulate the stock market. In other countries privatisation may be carried out due to fiscal and efficiency considerations. Singapore is not typical in this regard, as in general it is important that efficiency improvements should be the primary goal of privatisation (Kikeri *et al.*, 1994).

Second, the approach to privatisation should reflect the policy objectives of the state. In Singapore's case, there was a well-planned, phased approach which involved gradual liberalisation (telecoms equipment market in 1989, mobile market in 1997, fixed line market in 2000), as well as increased regulation to ensure high levels of quality and service, within an approach described as

“managed competition” (Singh, 1998). In other contexts, “shock-treatment” and further deregulation may be desirable, but in the Singapore context there was no compelling reason to adapt it since SingTel was not a drain on public funds, there was a high quality infrastructure and teledensity rate, as well as globally competitive standards of quality and service.

Third, the Singapore experience is consistent with the proposition that privatisation is more successful if it is carried out within a well-developed institutional and regulatory context. According to World Bank researchers:

privatisation of both competitive and noncompetitive SOEs is easier to launch and more likely to yield financial and economic benefits in countries that encourage entry and free trade, offer a stable climate for investment, and have a relatively well-developed regulatory and institutional capacity (Kikeri *et al.*, 1994, pp. 256-57; see also Durchslag *et al.*, 1994).

The existence of such a context in Singapore has aided SingTel’s privatisation and subsequent performance.

Fourth, the state should give its full commitment to the privatisation process within a well-planned framework for action. Political authorities gave their complete commitment and support to the privatisation effort, ensured the integrity of the process, maximised transparency and reduced discretionary decision making by individuals involved, all of which are deemed as key success factors in privatisation programmes (Durchslag *et al.*, 1994).

Fifth, the SOE should receive prior preparation for privatisation. The means to do so vary, and should depend on the industry context and the state of the enterprise. In Singapore, for example, the gradual introduction of “managed competition” was deemed necessary, while in other contexts efficiency-improvement measures may be warranted, such as bringing in private managers who should be given autonomy as well as held closely accountable for performance (Kikeri *et al.*, 1994). See Kikeri *et al.* (1994) for guidance on the details of implementation of privatisation programmes, as well as Durchslag *et al.* (1994), and Beardsley and Patsalos-Fox (1995).

Finally, the dominant view that state ownership leads to inefficiency should be reconsidered, in the light of the Singapore experience. Clear state policies relating to the pursuit of globally competitive standards of quality and service, a civil service recognised for its efficiency, meritocracy and pragmatism (Guan, 1997; *The Straits Times*, 1998a), as well as clear competitive strategies and focus on efficiency at the SOE level have led SingTel and other Singaporean SOEs to world-class performance.

It can be argued that the Singapore context is not typical of other countries’ situations. Singapore is a small, resource-lacking city-state, but has exhibited clear long-term development strategies at the national level as well as an efficient civil service and a highly skilled workforce. Singapore’s experience with SOEs, however, does indicate that it is possible to achieve world-class performance under state ownership, given certain contextual conditions. The gradual privatisation and liberalisation processes, coupled with “managed

competition” used in the telecoms industry, moreover, have significant practical implications for the implementation of privatisation programmes which may be useful in a variety of contexts.

Note

1. The telecommunication equipment market was liberalised in 1989, while a new entrant to the mobile phone market started competing in April 1997, capturing significant market share.

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