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The road to liberalization: Policy design and implementation of Taiwan's privatization

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Abstract Among newly industrializing economies, Taiwan represents an archetypical example of a country in the process of economic catching up with institutional environments standing somewhere between Western and transition countries. Thus, Taiwan's privatization experience may provide a means to assess the generalizability of conclusions drawn from prior research conducted in both kinds of countries. In the face of changing economic and political environments, Taiwan revamped its blueprint for privatization in 1989 as a major plank of its economic shift toward liberalization. Although it has proceeded on a trial-and-error basis, the policy has thus far yielded substantial though mixed results. This study systematically reviews Taiwan's policy design and implementation of privatization, which originally was modeled on but later diverged from the Western experience as a result of the immature institutional settings and political compromises in various regards. Taiwan's privatization, in a relative small scale to those in transition economies, is characterized by a set of stylized policy initiatives that provide a reference point for other developing countries.

Keywords Policy framework · Performance change · State owned enterprise

JEL Classification H42 · K23 · L33

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1 Introduction

After World War II, among many governments of developing countries, state ownership coupled with central planning seemed to offer an accelerated route to economic development (Cook and Minogue 1990). The postwar rise of state-owned enterprises (SOEs) ideally would make up for both the absence of well-developed markets and the lack of indigenous private entrepreneurship (Astbury 1996). During the 1980s and 1990s however, a convincing body of accumulated evidence began to suggest that SOEs underperform in all operations and functions relative to private enterprises. Therefore, as more and more countries are adopting privatization programs, the last decade of the twentieth century saw the largest scale of state asset sales in history (Parker 2003).

Despite the voluminous empirical literature examining the rationale and impact of privatization (for extensive reviews, see Shirley and Walsh 2001; Megginson and Netter 2001), research on this subject mainly considers the experience of Western and transitional economies rather than the economies of developing countries. It therefore cannot indicate whether, or to what extent, the performance implications of privatization apply to newly industrializing countries, especially smaller market economies that contain some characteristics of central planning in their policy designs. Among them, Taiwan represents an archetypical example that has worked to develop its economy in immature institutional settings, including a capital market with limited absorptive capacity, a relatively inexperienced and unstable policy framework, and a less-than-harmonious relationship between the executive and legislative branches of government. Therefore, assessing the case of Taiwan's privatization may indicate the generalizability of conclusions drawn from prior research that has been conducted in both transitional and Western economies and further serve as a reference for other developing countries.

Taiwan's achievements in economic development, derived largely from a series of successful industrial development strategies in the 1950s and 1960s, have long been recognized worldwide and earned Taiwan a place among Asia's "four little dragons." In the 1970s, the government started to pursue a new strategy of structural adjustment, aimed not only at fostering new high-tech industries to replace the capital-intensive industries that had reached the mature stage of their life cycle but also at reducing the role of the public sector in economic activities. In the early 1980s, Taiwan had just emerged from a second energy crisis and the ensuing global stagflation by instituting a domestic demand stimulus scheme that included a series of the state-dominated capital intensive projects.¹ In contrast, in response to these changing economic conditions worldwide, industrialized countries understood that only by reducing the role of the public sector could they sustain economic growth. This realization spawned the trend toward privatization, which soon caught on around the world, including in Taiwan.

¹ These policies largely have been successful; Taiwan has one of the world's highest standards of living, constitutes the seventeenth largest economy in the world, is the fourteenth largest exporter, and ranks as the fourth largest holder of foreign exchange reserves. Moreover, Taiwan's per capita gross national product (GNP) rose from \$1,100 in the 1950s to \$11,600 in the 1990s and then \$16,500 in 2007.

Varied and rich privatization experiences documented in advanced countries make the transfer of the Western experience to developing countries almost inevitable, because countries without a privatization program face a powerful demonstration effect, as well as increasing pressure to follow international norms in implementing similar policies (Dolowitz and Marsh 1996). However, as no single glove can fit all hands, policy imitation cannot simply involve posting one approach from one country to another. Instead, it must consider the acceptability of a specific method of privatization for each host country, as well as how each country interprets and operationalizes that policy (Parker 1999). Because SOEs once were the primary means to support economic growth in Taiwan, the government exploited them broadly to serve its economic, social, and political goals. However, recognizing that the state's retreat from economic activities had become a global trend and that SOEs represented obstacles to economic development in ever-changing environments, Taiwan chose to follow the same course as many advanced economies already had taken in the 1980s.

The privatization of SOEs in Taiwan began with a conference of social elites in 1984, which concluded with a policy slogan: "Internationalization, liberalization and institutionalization as the objectives of continued economic growth." Although Taiwan soon encountered its first two SOE bankruptcies in the mid-1980s, the concept of market liberalization was not incorporated into the government's decision to reduce its presence in the market until the late 1980s, when Taiwan's government finally revamped its blueprint for privatization² (Wu 2006). Although privatization of SOEs gradually became a major plank of its economic policy, the policy generally was carried out by trial and error because of inexperienced execution and immature institutional settings. Thus far, 39 privatizations are complete, following various methods across different sectors and yielding proceeds of some US\$11 billion, though with mixed records of post-privatization performance outcomes.

Although much has been written about the impact of privatization and the preconditions of its success, remarkably little discussion addresses how the privatization decision process should be structured, especially at the state level (Kettl 1993; Wallin 1997). Because the experience of Taiwan's privatization reflects, to some extent, the rationale and constraints of policy formulation in a newly developing country, this study systematically reviews Taiwan's policy design for and implementation of privatization, as well as shedding light on other developing countries which are eager to follow the Western privatization experience. The paper is organized as follows: The next section outlines the key features of Taiwan's SOEs and addresses the major elements of its policy framework. Section three examines the policy priorities of privatizing SOEs of different types and their outcomes. The next section is an attempt to quantify the costs and benefits of implementing privatization since 1989 and concisely evaluate the post-privatization performance outcomes. The paper concludes with some suggestion to the policy designs in other developing countries.

² The first round of privatization in Taiwan was embarked on as a supportive measure for a land reform program in the early 1950s, under which the government gave landowners shares in SOEs in exchange for the surrender of tracts of their land. Although some partial privatizations took place for policy purposes in the following decades, none touched on the goals of improving efficiency or social welfare.

Table 1 The contribution of SOEs to Taiwan's economy

Year	1951	1961	1971	1981	1991	2001	2005
% share of GDP	5.0	8.2	9.4	12.1	10.3	9.4	7.6
% share of domestic capital formation	24.2	16.2	20.4	30.1	21.5	12.1	10.2
dividend gain as % of government net revenues	0.002	0.005	0.009	0.008	0.005	0.016	0.011
Monopoly tax income as % of government net revenues	0.382	0.040	0.046	0.045	0.035	0.043	0.027

Source: The Directorate General of Budget, Accounting and Statistics (DGBAS), Executive Yuan, Taiwan, 2006.

2 The policy framework of Taiwan's privatization

After World War II, the Taiwanese economy went through a long period of rehabilitation. Industries built up by the Japanese during their colonial rule were handed over to and nationalized by the Taiwanese government. The process of modern economic development launched in 1952 when SOEs became the foundations for industrialization. These SOEs had a significant share in Taiwan's economy, but the private sector gradually replaced their importance in the 1980s. Because Taiwan is a free economy with some elements of central planning in its economic development, the government gets involved in the market mainly through SOEs to maintain market order and address the indigenous development of industries. To demonstrate the contribution of SOEs to Taiwan's economic structure, consider their percentage shares of gross domestic production, capital formation, and government finance, as shown in Table 1. The figures peak in the 1970s³ and start to decline in the 1980s.

For example, SOEs accounted for 5% of GDP in 1951, rising to 9.4% in 1971, and reaching a peak in 1981. By 2001, the figure had declined to 9.4% and stood at just 7.6% in 2005. A similar trend also emerges for the contribution of SOEs to gross domestic capital formation and government finance. For example, SOEs accounted for 16.2% of capital formation in 1961, 20.4% in 1971, and only 10.2% in 2005. This decline in the relative importance of SOEs for the economy resulted not only from the retreat of state ownership, starting in the early 1990s, but also from the rapid growth of the private sector.

After a full launch of privatization in the 1990s and early 2000s, 21 SOEs continued to operate in Taiwan at the end of 2005 (see Table 2). Their combined work force numbered 177,526, equivalent to about 2.3% of the national labor force. Although SOEs have been declining in terms of number and economic importance, due to the continuous promotion of privatization, they remain dominant in several sectors, including telecommunications, electricity, petroleum, railway transportation, tobacco and wines, water supply, and shipbuilding.

³ In the mid-1970s, the Taiwanese government launched its Ten Major Projects, which included setting up several SOEs in basic industries and capital-intensive investments in infrastructure. These projects helped the Taiwanese economy ride out the recession following the first oil crisis.

Table 2 Taiwan's SOEs in 2005

		Number of SOEs	21 ^a
Sectors		Manufacturing	5
		Utilities	3
		Construction	1
		Insurance	2
		Telecom & Transportation	7
		Financial	3
^a Four special organizations (foreign branches of some state-owned banks) are excluded. Source: 2006 audited general budget, the DGBAS, Executive Yuan, Taiwan.	Total assets	US\$624.9 billion	
	Total owners' equity	US\$109.6 billion	
	Annual sales	US\$81.2 billion	
	Profits before tax	US\$6.2 billion	
	Employees	177,526	

Despite its economic nature, privatization is a highly political activity that requires careful nurturance, consensus building, and compromise. In addition to the executive's initiative, privatization involves a multistage process, from laying out the legal basis, to establishing an appropriate administration for promoting privatization, through completing the sale, which offers ample scope for disruptions, amendments, or even reversals of a given privatization plan. To minimize the possibility that privatization collapses, domestic champions of the policy must create and maintain political support, both within and outside government, and perhaps even in the face of strong resistance from interests that expect to be disadvantaged, such as SOE labor unions and politicians who use SOEs for political patronage. Why should politicians, government officials, and SOE managers give up the rents they may gain from state ownership? In practice, tension likely is inherent within any privatization program, pitting the forces of change against those opposed to change, with the latter willing to invest resources, up to the value of the rents they receive from the status quo. In contrast, those who may gain rents from privatization, such as the general public and perhaps some SOE employees, often are too diverse to commit their resources.

This section specifies eight major elements of the policy framework of Taiwan's privatization, including the legal basis of its policy, the organizational framework for policy implementation, the scope of privatization, the pace of privatization in concert with market liberalization, the privatization methods adopted, considerations of employee rights and interests, the fast-track mechanism for financially troubled SOEs, and the management of residual state holdings.

2.1 The legal basis of Taiwan's privatization policy

A democracy requires a legal basis for any policy that might affect people's rights and interests. Whether a country needs to enact a privatization law depends on its legal and political situation and the specific characteristics of the enterprises to be privatized (Guislain 1997). In some countries, the government may not require any special enabling legislation to privatize state owned properties, either because constitutional principles do not demand such laws or because SOE legislation or other laws already provide the necessary legal framework.

As one of the countries within the civil law tradition, Taiwan always demands a law when the issues in question involve rights and obligation of government and

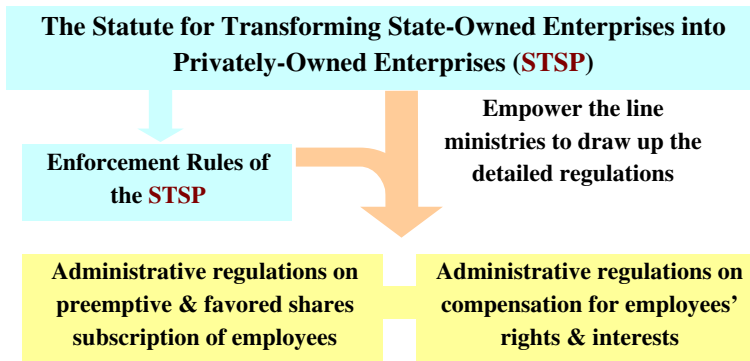


Fig. 1 The Legal framework of Taiwan's privatization policy

private entities. The legal basis for Taiwan's privatization policy rests on the Statute for Transforming SOEs into Privately Owned Enterprises (STSP),⁴ whose basic approach is to set general rules for the privatization process for all chosen SOEs.⁵ Unlike the approach used by many countries that legislate specifically for each case of privatization, the general rules set out in the STSP are efficient with regard to the law-making process but sometimes fail to address the specific situations of SOEs properly and thus can create problems for authorities charged with carrying out privatization.

Figure 1 illustrates the legal framework of Taiwan's privatization policy. The STSP provides the platform for all relevant measures and, with its enforcement rules, collectively regulates basic obligations and rights of all parties—including the government, SOEs, and their employees—involved in the privatization process. They also empower competent authorities to create detailed provisions for specific matters, such as the allocation of priority shares to employees, redundancy payments, and so on.

2.2 Organizational design for promoting privatization

Because they are owned by central or local governments in Taiwan, SOEs are administered by the line ministries, which are also responsible for conducting their privatization. When the government revamped its privatization efforts in the late 1980s, an ad-hoc committee (Steering Committee for Promoting Privatization of SOEs [SCPPS]), composed of line ministries and other relevant agencies, was

⁴ The STSP, first promulgated in 1953 in support of the land reform program, covered only the basic concept of privatization. A major revision of the STSP in 1991 provided consideration of employees' interests and rights.

⁵ According to Article 5 of the STSP, when the authority in charge of an SOE believes it no longer needs to be operated by the state, it may propose that the SOE be privatized, and privatization will be conducted upon receipt of the Premier's approval.

established to oversee the privatization process on behalf of the Premier.⁶ Although the experience of other countries has demonstrated that a holding company likely performs more efficiently than a bureaucratic agency (Pirie 1988), the organizational framework for managing SOEs or promoting privatization in Taiwan is substantially restricted by law. However, the passage of a package of government reform laws by the legislature in the near future should provide a more flexible organizational design.

2.3 Scope of Taiwan's privatization

When privatization first was promoted in Taiwan in the 1950s, the law excluded certain SOEs from privatization on grounds of the public interest or national security. However, when the government reconsidered the scope of privatization in its first revision of the STSP in the late 1980s, it revised the statute to provide for the privatization of any SOE, assuming that the competent authority, having given consideration to the market situation and industrial or technological changes bearing on the need to keep the SOE, proposed its privatization and the Premier approved that proposal. This revision of the STSP to broaden the scope of privatization gives authorities more flexibility to promote privatization among all kinds of SOEs.

2.4 Paces of privatization and market deregulation

If the introduction of competition can solve the efficiency problem of SOEs, there is little need to consider the nature of ownership. However, if competition is not the only factor that influences SOE operations, the focus must expand beyond the market to include ownership changes. Privatization plans that neglect competition-enhancing measures consistently are questioned with regard to their efficacy (Caves 1990). While experience of advanced countries shows that for privatization to be successful, the regulatory framework needs to be reformed. Privatization can in turn make market-oriented regulatory policies easier to implement.

Numerous studies acknowledge that ownership per se cannot guarantee positive outcomes of privatized enterprises (e.g., Shleifer and Vishny 1994; Nellis 1994), and one of the critical components of Taiwan's privatization program is aligning with forces of market liberalization, particularly among the state-owned utility industries. For example, Chung-Hwa Telecommunication Corporation (CHT), which is the corporate form of the competent authority, Directorate General of Telecommunications (DGT), exercised a legal monopoly in Taiwan's telecom market for nearly half a century, so authorities decided to address both market structure and ownership issues in concert to improve the efficiency of the telecom market overall. With the passage of three telecom bills, namely, the Telecom Act, the Organizational Statute of DGT, and the Statute of CHT, in early 1996, the telecom market was greatly deregulated, retreating government's role from business operations to regulatory

⁶ The SCPPS acts as an ad hoc organization; the Council for Economic Planning and Development (CEPD) remains in charge of all secretarial tasks supporting the SCPPS's operations. The chairperson of the CEPD also convenes the SCPPS, and the Sectoral Planning Department of the CEPD acts as the main policy support staff for the working aspect of the SCPPS.

functions and opening a variety of telecom services to the private sector. Share-issue privatization of CHT was then planned and implemented. CHT was privatized on August 12th, 2005 with the government's holding down to less than 50%.

Similarly, the schedule for privatization of another state-owned monopoly, China Petroleum Corporation (CPC), followed market deregulation. The schedule opened Taiwan's petroleum market in steps, well before CPC's scheduled privatization. The first private naphtha cracker, for example, was approved for construction in 1997 and already operating at full capacity in 2000; market deregulation became implemented at the end of 2001 when the Petroleum Administration Law came into effect. Although CPC will face unparalleled challenges in the deregulated market, its market dominance prevails in the short term. In the long term though, CPC can survive market competition only through privatization.

2.5 Methods of privatization

Privatization in the broadest sense means giving private actors a greater role in decisions about what, where, and how to produce goods and services. However, privatization in a narrower sense of divestiture—the sale of SOEs—provides greater challenges than early advocates envisaged (Berg and Berg 1997). Of the different approaches to selling SOEs, the method chosen usually reflects the government's policy priorities in terms of proceeds, transparency, broadening and deepening capital markets, better corporate governance, the direct impact of technological or managerial know-how, and access to markets.

In the early stages of Taiwan's privatization drive, only by the sale of shares or assets occurred. However, the second revision of the STSP in 2000 broadened the approach to five alternatives, including sale of shares, sale of assets through bidding, formation of a private-owned enterprise by joint venture with private individuals through contributions in kind, merging companies so that the surviving enterprise became a private-owned enterprise, and dilution of state-owned capital by new issue. In adopting any of these five methods, the authorities may effect privatization by negotiating with a specific counterparty selected through public invitation.

Although other forms of privatization, such as contracting, leasing, and management contracts, as adopted in advanced countries, have been tested with some public service providers (e.g., garbage collection, waste disposal, traffic management, hospital administration), they have not been applied to SOEs in Taiwan, mainly because of employee issues, as discussed next.

2.6 Employees' rights and interests (ERI)

In pursuit of a balance between the government's economic and political aims, provisions for the legal protection of ERI appeared in the first revision of the STSP in 1991 and again in the second revision in 2000. Since then, ERI has become a critical policy design issue. Various compensation measures, including seniority settlements, insurance compensation, redundancy payments, and priority share subscriptions (plus favored offerings for long-term shareholding), attempt to reduce opposition from employees. However, it has proved all but impossible to satisfy employee demands fully, and confrontations between SOE labor unions and the

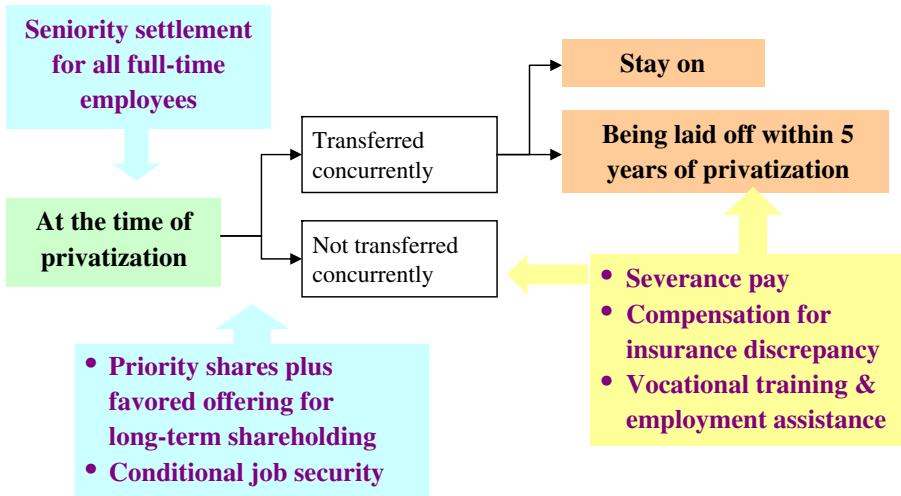


Fig. 2 The policy design for employees' rights and interests during privatization

government still arise. Consequently, ERI remains a critical issue and often a stumbling block in SOE privatization. Figure 2 illustrates Taiwan's policy design for ERI, showing that SOE employees receive a variety of legal rights in the time prior to privatization.

First, to encourage employees to participate in corporate governance through shareholding, they receive exclusive access to share subscriptions. Observing the experiences of advanced countries, Taiwan incorporated such an approach into its policy design in the first revision of the STSP in 1991 to earn employee loyalty to the company as well as speed up the share sales. Employees may preemptively subscribe to a specific amount of shares, under the conditions that each employee may buy shares in value up to 48 months' salary and that total priority shares for employees cannot exceed 35% of outstanding shares of that company. Long-term employee shareholders are also entitled to discounts in subscription price. Thus far, the percentage of employee shareholding, which is a result of many objective and subject factors, varies across privatized enterprises and over time.

Second, all full-time employees are entitled to settle for the length of their service years, a provision specially tailored for Taiwan's privatization efforts to protect employees' seniority benefits. They may then choose to stay with or leave the company at their own discretion, unless they enter an agreement with the new employer (which rarely occurs).

Third, those who are unwilling to stay with the privatized enterprise are eligible for severance pay and insurance compensation.⁷ Severance pay includes 1 month salary for notice and 6 months' salary to cover a reasonable job-seeking period.

⁷ According to Article 8 of the STSP, if employees suffer the loss of pensions because privatization interrupts the original insurance scheme, they will be duly compensated. The scope of additional payment, if any, is limited to losses incurred at the time of privatization.

Anyone who chooses to stay with the enterprise remains eligible to receive such severance compensation if laid off within 5 years after the privatization.

Fourth, because only profitable SOEs initially were chosen for privatization, the problem of large-scale employee redundancies did not arise. However, the changing situation has forced some financially troubled SOEs to close down or privatize in part. In this situation, the issue of job transfer training or employment assistance prior to privatization becomes more crucial and therefore is covered by the second revision of the STSP.⁸

Studies on self-interested behavior in the public sector note the “capturing power” of organized groups of SOE employees (Borcherding et al. 1982), arguing that SOE employees trade votes for laws or regulations that either protect the status quo or maximize their compensation if the working conditions must change. According to the experience of other countries, privatization is most likely to succeed if employees are “bribed” to ensure their minimum opposition (Burton 1987). Since 1991, SOE employees organized by SOE labor unions in Taiwan have gained increasingly favorable legal compensation in return for privatization because of their lobbying or strikes against the government. These efforts have led to the gradual distortion of the original ideology of policy design.

2.7 Fast-track mechanism for financially troubled SOEs (FTSs)

Originally, the privatization policy design gave SOEs (or employers) the main responsibility for taking care of employees prior to privatization. Accordingly, employers (i.e., the SOE) are legally responsible for most compensation, including seniority settlements and severance pay. Yet financially troubled SOEs cannot afford the compensation legally required by the STSP.

The Privatization Fund (PF), appropriated from a portion of the proceeds of privatization, follows a common policy practice adopted in transition countries for ERI compensation schemes or other capital investments. Incorporated into the second revision of the STSP, the PF was designed to subsidize FTS payments of ERI expenditures at the time of privatization. At least four FTSs have been successfully privatized with the PF’s financial assistance, though demands for assistance may reach as high as NT\$141.5 billion (US\$4.1 billion) between 2003 and 2008. When an SOE experiences financial difficulties, budgetary constraints and parliamentary interference still frequently prevent authorities from dealing with the problems decisively.

2.8 Management of residual state holdings

Most privatization programs begin with a period of partial privatization, in which only noncontrolling shares of firms may be sold on the stock market (Gupta 2005). In many instances, governments retain residual equity ownership in privatized SOEs to address any political or societal concerns in the post-privatization period. The

⁸ According to Article 11 of the STSP, a government-owned enterprise must conduct such services when necessary. The authority in charge of the enterprise or the competent authority from the labor administration provides assistance.

purpose behind retaining these assets often determines whether they remain in state hands for the longer term or are privatized after market deregulation. Different policy practices around the world also raise the question of whether state asset management can substitute for privatization when there is a lack of public support for privatization (OECD 2000).

After promoting some 30 successful privatizations, the Taiwanese government owns residual holdings in 19 companies, with a total market value of nearly US\$8.3 billion, as of 2005. Although state shareholdings in those companies have fallen below 50% (threshold for legal privatization in Taiwan), the percentage of state-controlled seats on boards of directors remains at approximately 60% on average. In other words, the executive branch of the government still exercises substantial control over privatized SOEs. Thus, the executive branch (bureaucratic control) remains involved in privatized firms, even after the legislative branch (political control) removes itself after privatization.

In the early stage of Taiwan's privatization, state-retained shareholdings in privatized SOEs seemed justified by several issues, such as reducing the impact of large share sales on the stock market, continuously implementing government policies (including stage-by-stage introductions of new regulatory regimes), maintaining market discipline, and helping managers adapt to the competitive market and protect the privatized SOEs from hostile takeovers (Wu 2007). Although many of these reasons disappear with the passage of time, authorities continue to retain control over privatized enterprises by holding a majority of board seats.

Despite the government's reluctance to release residual state holdings entirely, often ascribed to a sluggish capital market and difficulties in removing policy duties from privatized SOEs, critics consider these holdings a form of political patronage; as Golden (2003) argues, the executive branch of government leverages its power for the ruling party and serves the electoral needs of incumbent politicians. Therefore, scandals result when private investors can take advantage of passive government representatives on the board in the post-privatization period. As this type of inherent problem of state shareholdings is seen as the ineffectiveness of corporate governance (Shirley and Walsh 2001), an administrative order⁹ has been issued as the guideline for the authorities' handling of residual state holdings in privatized enterprises. The second revision of the STSP also empowers authorities to create a 'golden share' to veto any corporate decisions that breach national security or public interests.

3 Strategic priority for Taiwan's privatization

The effectiveness of a privatization program may be a function of the pace of its implementation (Pirie 1988). Speed is of the essence; windows of opportunities do not stay open very long. Yet an attempt to go too fast also may backfire, as a result

⁹ Article 10 of the "Guidelines for Managing Residual State Holdings", which came into effect in Oct. 1999, stipulates that the government can retain share holdings for utility and national defense related companies to exert substantial veto power on the management of these companies, otherwise, the state-owned shares of the privatized SOEs in competitive industries shall be successively and completely sold or transferred in view of the capacity of capital market.

of inadequate preparation and poor design, lack of response from investors, or lack of support from key constituencies (Guislain 1997). A drawn-out process can cause the deterioration of the SOEs, the loss of momentum and support for sometimes painful reforms, and even the scuttling of the overall program.

When Taiwan's government revamped its privatization agenda at the end of the 1980s, more than 80 SOEs operated in the market. In the first revision of the STSP in 1991, the "negative list" of SOEs, those ineligible for privatization, was replaced by a more flexible regime for the discretionary selection of SOEs to be privatized. Therefore, the line ministries started to review the situation in a more active manner and consider which SOEs did not need to remain in state hands.

A series of reviews, conducted by the SCPPS, yielded a list of 47 SOEs to be privatized (21 after the first review in 1989, increased to 33 in 1993 and then 47 in 1996), though their privatization priority remained unclear. Establishing these priorities required considering government's limited resources and the urgency needed to overcome likely technical and political impediments to privatization. On the basis of their competitiveness and assigned policy missions, they were divided into four different priority categories.

3.1 Priority 1: Industrial firms in competitive industries (privatized over 1989–96)

Several SOEs in manufacturing industries had long faced significant competition from the growing private sector. Their adaptability to this competition and gradually released policy duty meant that they remained attractive to private investors in the early 1990s but would not be for long if they remained under state ownership. Six of these SOEs in fields such as steel, petrochemicals, and construction were privatized in the first half of the 1990s. They became the first successful cases of Taiwan's privatization and enabled bureaucrats to obtain precious hands-on experience from implementing privatization.

3.2 Priority 2: Financial institutions in increasingly deregulated market (privatized over 1998–99)

State-owned financial institutions, including banks, insurance firms, and building societies, became targets in the first wave of privatization because of their high profitability when regulated and protected. However, the legislature hesitated to approve budgets for share sales until the constitutional reform in 1997, which disentangled vested interests. In the following 2 years, nine state-owned financial institutions transferred into private hands. The smooth privatization of these SOEs also resulted from the minimal employee opposition, compared with that in other industries, because of the smaller gaps in both salary and working conditions between the state-owned financial institutions and those of the private sector.³

3.3 Priority 3: Financially troubled SOEs (privatized over 1999–2004)

As mentioned previously, FTSS are unattractive to private investors unless they first undergo some restructuring, whether in the form of downsizing, changing

management, issuing new shares to introduce private capital, or another method. Several medium-sized SOEs listed as candidates for privatization in the early 1990s failed to attract investors. The financial condition of these firms worsened during the economic slowdown at the beginning of the 2000s. Furthermore, the government ran short of budgets for full-scale bail-outs. Fortunately, the fast-track mechanism for assisting FTSS, established in the second revision of the STSP, provided PF financing of ERI payments and thus speeded the privatization of FTSS. Several were privatized during 1999–2004 (two through employee buy-outs with government subsidy of employee seniority settlements and redundancy payments).

3.4 Priority 4: Utility companies (yet to be privatized)

Utility companies, including telecommunications, electricity, petroleum, water, and railways, traditionally are highly regulated industries because of concerns about national security or the public interest. Privatization of such utility companies therefore must be pursued in tandem with competition-enhancing policies and adequate post-privatization regulatory framework designs. Some utilities cannot function as commercial companies and must be corporatized in the first place, along with administrative reforms such as imposing more accountability, adopting more comprehensive performance evaluation, and forcing improvements in productivity—all of which may assist the cause of privatization.

However, SOEs in this category are not considered priorities for privatization. For example, the state-owned Chung-Hwa Telecom (CHT) and China Petroleum Corp. (CPC) originally were chosen among the first wave of candidates and slated for privatization by the end of 2001, in concert with market liberalization initiatives. However, Parliament's interference with share-issue budgets and the downturn of the capital market postponed the share sales of CHT several times, though its share-issue privatization finally was completed at the end of 2005. The schedule for CPC remains stalled, long after the passage of the Petroleum Administration Law that provided a legal framework for its privatization.

4 Efficacy of policy implementation

Finding an arena in which a meaningful alignment of interests, flowed through the political system, allows a policy to be developed to its fullest potential remains a real challenge (Wallin 1997). The privatization agenda in Taiwan, hindered by opposition parties who traditionally support SOE labor unions, provides evidence of this challenge. Privatization, similar to other economic or social policies, usually results from goodwill, but the outcome relies mostly on its implementation.

4.1 Costs and revenues of privatization

A well-designed and effectively implemented policy should take into consideration both costs and benefits, and the latter should outweigh the former for the policy to be

viable. Privatization in Taiwan has made significant contributions in terms of raising revenue for the government and supporting the development of the securities market. By the end of 2005, 39 SOEs in various industrial sectors had been privatized through more than 60 offerings and several sales of assets. Sales of government ownership stakes have yielded cumulative proceeds of close to NT\$400 billion (US \$11.35 billion), equivalent to 1.56% of the total revenue of the national treasury from 1989 through 2004. Table 3 shows the accomplishments associated with Taiwan's SOE privatizations.

Although one of the policy goals of Taiwan's privatization was to relieve budgetary constraints, and privatization proceeds since 1989 have helped do so, compensation to employees has become a black hole for government revenues because of increasing distortions in legislation in response to lobbying from SOE labor unions. Tables 4 and 5 show the costs and revenues of Taiwan's privatization. The percentage of privatization receipts used to compensate employees reaches as high as 36%, echoing the observation by John Moore, a senior member of the U.K.'s Thatcher government in the mid-1980s, that "public sector labor unions have been extraordinarily successful in gaining advantages for themselves in the pay hierarchy by exploiting their unique bargaining position" (Moore 1986).

4.2 Performance measurement of privatization

Empirical studies of SOE efficiency began in earnest after Alchain (1965) predicted that SOEs would be inherently less efficient than private firms. The wave of privatization in developed countries during the 1980s, particularly in Great Britain, provided a new avenue for empirical investigations of the performance changes before and after privatization (Martin and Parker 1995) that indicated private or privatized ownership was superior to state ownership in a variety of situations. However, many SOE proponents still contend that market failures in developing countries make SOEs more viable choices than the private sector. This section avoids an exhaustive presentation of the empirical results from privatization studies in advanced or developing countries, because such summaries already appear in many articles in this stream of research (e.g., Megginson et al. 1994; Boubakri and Cosset 1998; D'Souza and Megginson 1999).

Traditionally, financial indicators measure the economic performance of a firm, though they represent only part of how firms perform compared with their competitors. This study instead measures more objectively the performance changes of privatized entities on financial, operating, and market dimensions by adopting three groups of indicators which represent profitability, productivity, and returns to the investor. The empirical proxies used for the three performance measurement dimensions appear in Table 6.

Following the approach of Megginson et al. (1994), we develop a performance "time-line" to reflect the operating results of each sample whose the means of each variable over the 3-year pre- and post-privatization windows are calculated (the privatization year is excluded). For a given sample firm, a comparable industry average, computed at the 3-digit standard industrial classification level, is used to deflate the absolute changes of pre- and post-privatization performance variables. The relative measurement thereby reflects more objectively the performance changes

Table 3 The accomplishment of Taiwan's privatization

Method	Share sales (20)	Asset sales (12)	Assets as equity contribution (4)	Employeebuy-out (3)
Sector				
Manufacturing (19)	China Steel Corp.; China Petrochemical Development Corp.; BES Engineering Co.; Taiwan fertiliser Co.; Taiwan Salt Industrial Corp. (5)	LP Gas Supply Adm.; Alloy steel plant, Ship-building plant, Machinery plant, Tin-plate plant/TMMC; Steel plant, Vehicle manufacturing division/Tang Eng Works; Agricultural & Industrial Enterprise Co.; Kang-Shan Ropery Factory (9)	Veterans Gas Manufactory; Veterans Food Manufactory; Veterans Pharmaceutical Manufactory; Rolling stock division/Tang Eng Works (4)	Chung Hsing Paper Co. (1)
Financial Services (13)	China Insurance Co.; Chang Hwa Commercial Bank; Hua Nan Commercial Bank; First Commercial Bank; Taiwan Business Bank; Taiwan Fire & Marine Insurance Co.; Taiwan Development & Trust Co.; Taiwan Life Insurance; Chiao Tung Bank; Farmers Bank of China; Taipei Bank; Bank of Kaohsiung; Central Reinsurance Corporation (13)	-	-	-
Transportation (5)	Yang-Ming Marine Transport Co.; Taiwan Navigation Co. (2)	Transportation Division/ Tang Eng Works (1)	-	Taiwan Motor Transportation Corp.; Taiwan Railway Freight (2)
Others (2)	-	Taipei City Government Printing House; Taiwan Hsin Sheng Press Co. (2)	-	-

Note: the figures in parentheses represent the number of privatized entities.
 Source: The Council for Economic Planning and Development, Executive Yuan, Taiwan, December 2005.

Table 4 The direct costs of privatization

	(US\$ million)	
Direct costs	4,085.3	
Employees' rights & interests	3,975.6	
Seniority settlement		2,921.5
Insurance compensation		821.1
Redundancy payment		143.5
Others		89.5
Operational Expenses	109.7	

relative to the market movements and eases the influence of the business cycle during the pre- or post-privatization period. Thus,

$$\text{Performance change}_i = (P_{ij} - P_j)_{\text{post-privitization on period}} - (P_{ij} - P_j)_{\text{pre-privitization on period}}$$

where P_{ij} is a performance proxy for firm i in the industry j .

All proxy variables come from company prospectuses or annual reports. Some data refer to the Taiwan Securities & Futures Information Center; for those companies not listed, the data come from the archives of the Council for Economic Planning and Development.

4.3 Performance effects of privatization

Table 7 details the performance changes associated with 39 privatization cases in Taiwan in both absolute and relative terms. The latter measure attempts to minimize relative market movements in the pre- or post-privatization periods, which may cause misinterpretations of policy ineffectiveness. In terms of financial performance, less than half the sample enjoys improved returns on equity and returns on sale after privatization in absolute terms (i.e., directly comparing the three-year average of the pre- and post-privatization periods). In particular, in the financial services industries, both indicators reveal performance deteriorations after privatization. The absolute measurement, which does not take into account industry-wide market conditions, inevitably raises doubts about the policy efficacy of the performance

Table 5 The proceeds of Taiwan's privatization

Revenues (US\$ million)	11,356.9			
Methods Sector	Share sale	Asset sale	Assets as equity contribution	Employee buy-out
Manufacturing (19)	4,160.6(5)	345.8(9)	2.4(4)	0.05(1)
Financial services (13)	6,536.4(13)			
Transportation (5)	287.1(2)	7.5(2)		3.5(1)
Others (2)		0.69(2)		

The figure in parentheses represents the number of privatized entities

Table 6 The empirical proxies in the performance measurement

Characteristics	Proxies
Financial performance	1. Return on equity (ROE) = Net income / Equity 2. Return on sales (ROS) = Net income / Sales
Operating efficiency	1. Sales efficiency = Sales / Number of employees 2. Net income efficiency = Net income / Number of employees
Market performance	1. Price appreciation = (adjusted stock price at the t year-adjusted stock price at the t-1 year) / adjusted stock price at the t-1 year. 2. Dividend yield per share

1. All current-dollar measures are adjusted by the inflation index before the mean values of the three-year event window before and after privatization are computed;
2. Each sample company's stock prices were adjusted for the corresponding market trends. "De-trending" was accomplished by using TaiSEC's industry classification indexes.
3. For unlisted companies, stock price is replaced with net value per share for the stock price appreciation computation.

gains originally expected by policymakers. In the same table, the results of the relative measurement of performance indicate that absolute performance changes are deflated by industry averages in the corresponding periods. The financial indicators demonstrate that more than half of the samples experience positive changes in the post-privatization period.

As prior studies of privatization (e.g., Martin and Parker 1995; Ramamurti 1996; Dewenter and Malatesta 2001) have widely documented significant post-privatization improvement in labor productivity, efficiency gains reflect not only the growth of sales or profit but also the effect of layoffs, often observed in privatized enterprises. The direct and relative measurements of two operating performance indicators, namely, sales efficiency and net income efficiency, generate similar outcomes: Most samples enjoy efficiency gains, particularly when market cyclical movements are taken into account.

Turning to the market performance represented by returns to investors (including price appreciation and dividend yield), only 10 of the 39 samples show improvements in the direct comparison of stock appreciation during the pre- and post-privatization periods. The results illustrate the unfavorable conditions of the traditional industries in which most former SOEs operate. However, this study also examines how market investors value those former SOEs by deflating the direct measurement according to comparable industry averages. The relative measurement shows that only 9 samples underperform compared with pre-privatization levels when the relative movement of comparable private counterparts in the same period is considered. For these examples, mostly in the financial services industry, unsatisfactory returns on stock may result from the dramatic market changes caused by the financial liberalization initiative in the early 1990s. That is, in addition to the Asian financial crisis in late 1997, new entrants and ensuing competition drove down industry-level profitability and made financial institutions unattractive choices in the stock market. The results of the relative measurement of performance changes also show that privatized companies increasingly are subject to market fluctuations. These findings exonerate the government from accusations that some privatized entities suffered performance deteriorations as a result of its policy ineffectiveness.

4.4 Subconclusions

When the three types of performance measurement are adjusted for market effects, the results of the relative measurement indicate more significant performance gains after privatization, relieving some of the doubts about the efficacy of privatization in Taiwan. Although the performance implications of privatization in Taiwan conform in general to the Western experience, the data in Table 7 also show that ownership change itself cannot guarantee absolute success, according to the three types of performance indicators. As Wu (2006) argues from a policy-fit perspective, matching the privatization policy with other industry-wide or company-specific policies collectively determines the outcome of privatization. In an empirical analysis of privatization cases in Taiwan, he concludes that post-privatization market openness and pre-privatization corporate health, along with the privatization of certain SOEs, relate positively to efficiency gains after privatization, which implies the indispensability of market deregulation and SOE reforms in government divestiture policy designs. In addition, the efficiency effect of continued state presence (i.e., the percentage of board seats appointed by the executive branch of government) is moderated by market openness; therefore, government involvement may become a passive or even benign factor for management decision making if market competition exists. In contrast, state presence on boards becomes less critical for efficiency gains in weakly contested markets.

With this approach to the research theme, this paper presents only a basic profile of the performance effects of privatization as one of the pillars of Taiwan's policy framework. A detailed and rigorous analysis of post-privatization performance changes in Taiwan already appears in some research in this field (e.g., Wu 2006 2007) and is beyond the scope of this paper.

5 Prospects and policy implications

As Peter Evans has written, "exogenous inspirations ... build on indigenous institutional foundations" (Evans 1995: p.243). Taiwan appeared to be modeling its policy design on those established by advanced countries, particularly in Western Europe, even though its policy implementation diverges in some respects from the Western experience because of the compromises necessary when it has proved difficult to negotiate change both within and outside political and administrative structures.

Accordingly, the progress of privatization in Taiwan has not proceeded as rapidly and smoothly as the government had originally expected. While privatization has been an official policy for nearly two decades, by the end of 2005 only 39 chosen SOEs (excluding some small scale plants) had been transferred to the private sector, leaving some twenty SOEs to be privatized. Though the road to liberalization has been littered with obstacles, thrown in the way are inexperienced executive officials, the opposition from legislative branch and SOE labor unions, the capital market, and other vested interests, the trend is now clearly irreversible, and the government is believed to fulfill doubtlessly its privatization commitment for the rest selected SOEs.

Table 7 The firm-level performance effects of privatization

Sector (number of samples)	Performance change in absolute measurement					Performance change in relative measurement						
	ROE	ROS	Sales efficiency	Net Income efficiency	Price appreciation	Dividend yield	ROE	ROS	Sales efficiency	Net Income efficiency	Price appreciation	Dividend yield
Manufacturing (19)	0.38% (8)	1.79% (7)	1.16 (13)	0.46 (12)	0.68% (7)	0.24 (11)	1.10% (16)	2.83% (15)	3.28 (19)	4.02 (16)	8.07% (19)	0.57 (17)
Financial Services (13)	-6.73% (2)	-5.71% (5)	1.11 (7)	-0.27 (4)	-4.37% (3)	-1.28 (4)	2.34% (7)	1.13% (10)	1.51 (11)	0.56 (6)	2.23% (7)	-0.08 (11)
Transportation (5)	2.38% (1)	8.69% (2)	2.84 (3)	-0.49 (3)	-15.25% (0)	0.25 (4)	6.39% (3)	11.70% (4)	4.44 (5)	-0.33 (4)	18.63% (4)	1.03 (5)
Others (2) *	-1.55% (0)	-3.93% (0)	2.04 (2)	-2.16 (0)	-7.62% (0)	0.15 (1)	-1.22% (1)	-2.48% (1)	1.86 (1)	-1.20 (1)	-4.22% (0)	0.08 (1)

1. The figures in the parentheses indicate the number of privatized firms with a positive performance change in the post-privatization period

2. The unit for the two indicators of labor productivity (sales efficiency and net income efficiency) is NTS thousand per employee

3. The unit for dividend yield (including cash and share dividend) is NTS

Much has been learned about privatization as a financial means to serve economic and political ends in advanced and developing countries (Jones et al. 1999), but Taiwan's policy design offers several additional implications that should remind developing countries of the need for careful—not just lucky—decision making.

First, privatization efforts should work in concert with other policy measures. Recognizing that ownership change alone cannot ensure successful privatization outcomes, Taiwan has aligned its program with policy measures aimed at market liberalization. As Taiwan's experience shows, mere ownership change in sectors that lack substantial competition is insufficient to bring about market-imposed discipline and consequently better performance outcomes. The experience of other countries also suggests that small and medium-sized SOEs should be sold "as is" and as quickly as possible; new investments should be left to private owners after the decision to privatize the enterprise (Kikeri et al. 1992). As Taiwan's experience demonstrates, the financial health of a SOE is indispensable in the run up to privatization; without it, the company will suffer a more difficult position after privatization. A fast-track mechanism to force reforms on financially distressed SOEs prior to privatization should be built into policy implementations.

Second, strong political commitments are required for a successful policy implementation, because privatization is almost never painless. Most transactions produce both winners and losers, though "win-win" situations occur occasionally. Privatized firms sometimes end up suffering performance deteriorations, and large-scale redundancies may take place. Some SOEs must sell their assets at less than book value, which, though economically justified, leads to allegations of "give-aways" (Kikeri and Nellis 2002). Furthermore, because efficiency gains are usually realized and diffused in the longer term, whereas the short-term costs are borne and stressed by vested interest groups, such as SOE labor unions and politicians, privatization becomes an intensely politicized issue that requires careful handling by political and administrative leadership to build widespread public understanding through transparent policy designs, coalitions for change, and approaches for dealing with the disaffected. As Taiwan's privatization experience implies, resolving these questions requires not only experienced officials but also sustained and dedicated commitment from the top in tackling the vested interests that threaten to slow or derail the process.

Third, if privatization involves labor force reductions, the process will be contentious, but problems can be minimized if the government, and sometimes private buyers, talk with labor early in the process and jointly work out an acceptable approach. Because such dialogue can sometimes go to extraordinary lengths, the most common method to deal with workforce reductions involves lump-sum severance pay for layoffs or worker training/retraining programs. Taiwan's policy design obviously prefers the former to the latter, causing heavy fiscal burdens and making the scope of compensation an easy target for lobbyists from SOE labor unions. As suggested by Taiwan's experience, targeted and demand-driven support for SOE employees has a better chance of succeeding; counseling and job search assistance are more cost effective.

Although countries differ in many ways, lessons can be learned from an analysis of the privatization politics and policy decisions of a country like Taiwan, in which the executive branch of government has aggressively pursued privatization while

SOE labor unions equally aggressively have opposed it, even as the legislative branch of government continues to intervene. Although a country-specific study has its limitations, such studies are clearly instructional regarding the early years of policy development for other developing countries.

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