

REFORM OF CHINA'S STATE-OWNED SECTOR: PARALLELS WITH THE U.S. REGULATORY EXPERIENCE

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ABSTRACT

China's strategy to maintain state control of State-Owned Enterprises within the emerging competitive market economy raises questions that parallel the U.S. debate over traditionally regulated industries. Successful implementation of the current strategy to strengthen SOE incentives to maximize profit will place the SOEs in positions similar to U.S. regulated firms prior to deregulation. Despite the fact that these firms were privately owned, with management separated from ownership, and operated within a strong competitive infrastructure, they were unable to resolve the inherent contradiction between their roles as profit-maximizing entities and their government-mandated social responsibilities. U.S. experience dealing with this issue may provide helpful insights as China seeks to strengthen the SOE's incentive to maximize profit without removing the SOE social service responsibility.

1. Introduction

Since the announcement of their intent to create the "Socialist Market Economy", China's top leaders have emphasized their continued support for State-Owned Enterprises (SOEs), making it clear that they do not intend to allow production by the state to be replaced by the small but growing private sector.¹ Yet it appears at present that they are fighting a rearguard action, at least on the economic front, and that the traditional state-

¹ As an example of the many pronouncements on this subject, Deng Xiaoping said that the SOE "must remain the mainstay" of China's emerging Socialist Market Economy (Lam 1994).

owned arrangements for producing output are under greater threat than at any time since the establishment of the People's Republic.

Formal SOEs in China are seeing their share of industrial output fall in competition with relatively more adaptable firms, which are rural, urban, and foreign in locale, and quasi-socialist or private in ownership. In mid-1994, official reports indicated that over half of state enterprises were losing money even under the generous accounting rules and official prices allowed them. China continues to subsidize these money-losers while threatening them with eventual enforcement of the bankruptcy laws. In doing so, the leadership is attempting to steer between Scylla and Charybdis. Enterprise subsidies are the primary cause of China's increasing price inflation; withdrawing these subsidies, however, threatens rising unemployment and unrest within the Party's urban power base. Since the Party has relied on low unemployment, low inflation, and high growth as the economic foundation of its claim to legitimate power, there are no easy answers to the dilemmas posed by the SOEs.

China's current policy of economic reform, as announced at the end of 1993,² encourages the SOE to act more like a profit-maximizing firm. These reforms focus on expanding the infrastructure of a market economy, and forcing the state enterprise into market competition by reducing state interference and artificial pricing in capital and trade markets. These reforms also attempt to modernize SOE management by introducing corporate forms of ownership, to insulate managers from the inefficiencies of state

² These reforms were first announced at the Third Plenum of the 14th Central Committee of the Chinese Communist Party (*Jingji Ribao*, Nov. 15, 1993).

ownership and bureaucratic control. The number of SOEs traded on public stock markets is rising rapidly, and there have even been instances of capitalist-style takeovers.

If successful, these efforts will increase SOE incentives to compete vigorously as profit maximizing firms. They do not address, however, the difficulty of combining social service responsibilities with market competition. The preference of the leadership for state ownership is neither purely ideological nor purely distributional. State enterprises provide "social" goods, at least in the eyes of the leadership. While in the past these social goods included the capital goods and infrastructure necessary for forced growth, the state enterprise currently helps to maintain political stability by providing employment, income, control, housing, and social security to a potentially threatening urban constituency.

This paper argues that the current Chinese policy will place the SOEs in a position very similar to the situation faced by several U.S. regulated industries prior to their deregulation. These firms operated within a market economy supported by a strong competitive infrastructure. Many of these firms were privately owned, with management separated from ownership. Despite these strengths, the attempt to maximize profits in a competitive economy while simultaneously bearing social service responsibilities raised difficult issues that ultimately led to deregulation.

In both U.S. regulated industries and the Chinese SOE, the boundary between market and non-market activities is unstable and troublesome. In both cases, the boundary occurs when governments pursue social goals indirectly by mandating that profit-maximizing firms must bear social service responsibilities. As China seeks to define a

viable role for the SOE within the emerging market economy, it should note the results of U.S. efforts to deal with parallel issues. U.S. experience indicates that requiring profit-maximizing firms to shoulder non-market responsibilities will lead to pressure for controlling entry and exit by firms in the industry. Imposing such stability in the midst of an economy dominated by market forces has been shown within the U.S. regulatory experience to be self-defeating in the long run.

The Chinese have long enjoyed the claim of uniqueness, not only in their history and culture, but also in their path of economic reform and in their current economic situation. Certainly this is true in some respects; no other socialist country has been able to push economic reform so far, with such impressive results, while maintaining Communist Party control at the top of the state apparatus. McMillan and Naughton (1992), as well as Chen, Jefferson, and Singh (1992), have used China's reforms as a source for general lessons for other reforming economies, particularly those in Eastern Europe. As the role of market forces increases in the Chinese economy, however, parallels between U.S. and Chinese issues are likely to increase.

This paper is organized as follows. The SOE dilemma is discussed in Section 2. U.S. policies designed to deal with parallel issues are outlined in Section 3. Competitive issues are discussed in Section 4, while concluding remarks are presented in Section 5.

2. Problems Facing the Chinese State Sector

As China's economy transitions to a market-based system, the SOE role is shrinking. While output from the Chinese economy has been growing rapidly in recent years, official Chinese statistics show that SOE industrial production exhibited a precipitous relative decline from almost four-fifths of industrial output in 1978 to only slightly over two-fifths by mid-1994. By early 1994, state-owned industrial production was not only in relative decline, it was in absolute decline.³ Large enterprises were having difficulty paying wages, and large subsidies were increasingly necessary to keep them operating.

Jefferson and Rawski (1994) argue that the initial reforms aimed at increasing the enterprise managers' autonomy and incentive to pursue profit led to rapid growth of output, productivity, and exports during the period. By the mid-1980s, however, this newfound autonomy was leading to excessive investment, in part because the cost of capital failed to reflect its scarcity value (Tidrick and Chen 1987), and also because the incentive to minimize average costs was limited. Furthermore, the state enterprise's labor costs, including bonuses, grew significantly faster than productivity.

The continued existence of administrative controls and an irrational pricing structure throughout the decade compounded the government's difficulties of holding enterprises (and their employees) accountable for their autonomous actions. A Nanjing University study of money-losing enterprises found that these firms depended heavily on the government for both assistance and direction, avoided free markets, and produced unwanted products with

³ Industrial output from the state sector declined by 1.3% in the first quarter of 1994, even as aggregate industrial input from all enterprises grew by 17% over the first quarter of 1993 (Chen 1994).

methods and at a scale unwarranted by economic conditions. The dismantling of the plan is incomplete, for many managers were trained in an environment alien to market competition, and many party cadres continue to intervene in enterprise decisions based on goals unrelated to enterprise efficiency. The observations of Stepanek (1991) confirm that many SOEs are still not focused on issues of efficiency and cost.

These explanations of SOE financial weakness echo Leibenstein's (1966) argument that firms insulated from market discipline become "X-inefficient". Managers who do not face threats to market share and profitability tend to put the interests of employees and managers above those of the customer or the stockholder. In state-owned firms, the incentive problems are made worse because ownership is poorly defined, and because managerial rewards are only tenuously linked to profits. Sicular (1994) suggests that many potentially profitable SOEs choose to lose money, much in the same way that a productive worker may voluntarily remain unemployed when generous unemployment benefits are available.

Causal factors underlying the SOE financial weakness are complex. In addition to historical problems, analysts point to both (1) policies that constrain the SOE's ability to compete effectively and (2) management incentives to pursue goals other than profit-maximization. The 1992 Socialist Market Economy reform strategy has focused on incentive issues, hoping to reduce X-inefficiency by strengthening the competitive infrastructure and strengthening the SOE manager's profit incentives. First, major revisions in both the tax structure and distribution were implemented in order to both stabilize the

central government's shrinking share of revenues and put both state and non-state enterprises on more of a "level playing field". Second, the state's banks are being separated into commercial banks and development banks, the better to separate the state's funding of key projects from the normal enterprise loans. Third, the Chinese currency is moving toward convertibility, beginning with the Jan. 1, 1994, elimination of the Foreign Exchange Certificate. Fourth, investment is to be gradually shifted toward capital markets and away from dependence on the state.

Fifth, and perhaps most controversial, SOEs are directed to "modernize" their management. To maintain the dominance of state ownership in Chinese industry, the Chinese Communist Party announced reforms designed to separate enterprise ownership and management and strengthen management incentives to operate efficiently and maximize profit. For small enterprises, this means an emphasis on different forms of leasing which maintain state ownership but turn control over to non-state, or even private, parties. For larger firms, plans were made to transition toward either joint-stock or limited-liability structures in an attempt to increase the separation between the manager and the state, replace the state's investment expenditures with private capital, and further strengthen firms' incentives to maximize profit. By this approach, China's leaders hope to avoid both the economic pitfalls of restricting the non-state sector and the political debacle of rapid privatization (Parker 1995).

Successful implementation of this plan is expected to foster vigorous competitive SOE management, but state enterprises are still expected to provide, at least in part, the

"iron rice bowl" of uneconomic urban employment and benefits. As profit-maximizing SOEs compete against firms that do not share comparable responsibilities for social service burdens, SOEs will increasingly face dilemmas similar to U.S. regulated firms prior to deregulation. In the U.S., the inherent contradiction between the firm's role as both a profit-maximizing competitive firm and a provider of uneconomic social services (such as access to a service at below-market prices) led to controversy and eventual deregulation. Similarly, the difficult combination of SOE social service responsibilities and the emerging profit maximizing incentives is clearly leading to pressure for change.

The SOE's responsibility to provide industrial goods at below market prices or to provide social services such as housing or guaranteed employment to workers constrains the ability of the SOE to compete effectively. For example, Chen Qingtai, the Chinese Vice-Minister of Trade, recently admitted that SOEs needed to reduce employment by one-fifth in order to become competitive. The impact of such a reduction on social stability is extremely problematic.

Serious consideration has been given to the possibility of reducing the SOE responsibility for providing worker housing, for example. Long-term plans are under discussion to create a viable housing market and to quasi-privatize the existing housing stock.⁴ For existing housing, the plan is to raise rents while offering the sale of the use rights to current tenants at below-market prices, while use rights for additional housing are to be sold at market prices. China's leaders hope housing reform will reduce the state

⁴ The term quasi-privatization is used since property rights are not fully transferred. Instead, "use rights" are sold for up to fifty years, and there are limits to transferability.

enterprise's costs, increase the government's revenues, and increase savings demand as citizens save up for the purchase price.

Other SOE social service responsibilities are mandated via targets imposed upon the enterprise by the party, the state (and national, provincial, and local government objectives often conflict) and the workers. Xiao (1992), for example, has argued that workers exert dominant influence over SOE management to the extent that property rights over state enterprise assets are held de facto by workers. The enterprise is responsible for paternalistic investment in social services; in China the work unit is still the primary source of housing. SOE workers are also relatively well paid, and state policy has been forced to limit the bonuses and wages extracted from the SOE as a means of reducing the losses of potentially profitable enterprises (Sicular 1994). The government also uses its control over the enterprises to minimize unemployment in addition to producing specific goods.

In summary, basic economic theory argues that under competitive conditions the goal of profit maximization will induce the firm to produce goods efficiently. SOEs have been encouraged under reform to earn profit in an increasingly competitive environment. But even profit-maximizing SOE managers supported within a strong competitive infrastructure will face issues comparable to the dilemmas posed by U.S. regulated industries prior to deregulation. Implicit government mandates requiring that these firms meet social service responsibilities will constrain their ability to compete effectively. If government responds by insulating these firms from competitive pressures, these actions

will create unstable, and ultimately self-defeating, boundaries between market and non-market activities.

3. Lessons from the U.S. Regulatory Experience

Market economics relies on the fundamental principle that profit maximization and competition combine to produce market forces that push firms toward efficient production of goods and services that consumers value highly. Like the Chinese SOEs, regulated firms in a market economy deviate from this scenario. For much of this century, government regulatory agencies in the U.S. established legal rate structures for communications, transportation and utility services. These agencies pursued multiple social goals in addition to the primary stated goal of setting rates to ensure that each regulated firm was afforded the opportunity to earn a fair rate of return. Each of these regulatory agencies also pursued a secondary goal of broad access to the service. Telephone rates were set such that commercial customers subsidized residential customers to encourage universal access among households of all income levels. Transportation rate structures were designed to subsidize service to rural areas by allowing firms to earn monopoly profits on high-density long-haul routes. In order to maintain these cross-subsidy price structures, the regulatory agencies found it necessary to shelter individual firms from competitive market forces since profitable routes attract potential entrants.

This strategy of pursuing a socially-defined goal by requiring a profit-maximizing firm to subsidize service to some customers with higher profits collected from other

customers, was dubbed "taxation by regulation" by Posner (1971). The initial attraction is obvious: this strategy allows government to pursue a goal without collecting taxes to fund the activity. The drawbacks of this strategy are more subtle. Problems stem from the fact that financing the cross-subsidy requires insulating the firm's profitable lines of business from competition. The resulting boundary between government regulation and competitive market forces is unstable; regulators attempting to shelter firms from market forces face continual challenges from entry inspired by technological innovation, from entry inspired by the ingenious persistence of entrepreneurs seeking opportunities to earn monopoly profits, and from competitive pressures to respond to shifts in market demand.

U.S. experience regulating these industries consistently demonstrates that taxation by regulation is an expensive way to pursue social goals. Regulatory agency efforts to shelter the firm from competition delay technological innovation, foster X-inefficiency, and create rigid structures that severely limit the firms' ability to adapt to changing market conditions. Besides bearing the financial cost of providing an uneconomic service, the public bears real costs imposed by economic inefficiency and retarded technological innovation.

3.1. Regulation of U.S. Railroads: An Illustrative Case

The history of U.S. regulation and deregulation of surface freight transportation provides a clear illustration of the weaknesses inherent in the strategy of taxation by regulation. Specifically, the regulatory structure was weakened by competition from new

technology in the form of truck transportation and entrepreneurial efforts to slip through regulatory loopholes. Finally, the regulatory structure was not flexible enough to allow the major northeastern railroads to restructure in response to substantial shifts in market demand as manufacturing activity declined in the northeastern United States. This regulatory experience is not unique; these problems occurred repeatedly in all regulated industries, and some of these industries have been deregulated as a result.

Beginning in 1887, the Interstate Commerce Commission (ICC) gradually acquired the authority to regulate railroad rates and route structures. At the same time, the ICC pursued a policy of developing a comprehensive rail transport system that would tie the nation together; hence the ICC encouraged rail service to rural areas even when traffic density was not sufficient to support the service. The decision to mandate that profit-maximizing firms provide uneconomic service in pursuit of a socially-determined goal was not a minor decision, as maintaining this system required ever-increasing effort.

To finance uneconomic service on low-density short-haul routes, rate structures incorporated intentional cross-subsidization whereby traffic on high-density lines subsidized traffic on low-density routes. The profits earned on high-density routes attracted would-be market entrants while losses on low-density routes gave railroads no incentive to continue to provide service on those routes. The ICC therefore limited both entry and exit on individual routes. Railroads petitioning to enter a market were required to demonstrate that demand could not be met by existing firms, and petitions to discontinue service on low-density lines were frequently denied. These policies, which were necessary to maintain the

cross-subsidy rate structure, led to a cumbersome regulatory structure that was too rigid to adjust flexibly to a constantly-changing environment.

3.2. Competition from New Technology

The advent of truck transportation posed the first serious threat to this regulatory structure. Truckers were attracted to provide competing service on the highly profitable routes that financed the railroad cross-subsidy. Faced with the reality that government must either extend the ICC regulatory structure to include trucking or abandon its policy of requiring railroads to provide uneconomic service to rural areas, the federal government expanded the ICC's regulatory authority to include rates and route structures for trucking services under the 1935 Motor Carrier Act, and to include authority over some types of water transport in 1940.

ICC regulation established complex rate structures and route structures for trucks, railroads, and barges aimed at ensuring each transportation mode its "fair share" of traffic. Thus, the ICC pursued the goal of maintaining the cross-subsidy system rather than pursuing the goal of giving shippers incentives to use efficient transportation modes by setting prices roughly equal to marginal costs. As inefficient use of transportation modes and inefficient routes raised the nation's transportation costs, shippers on high-density long-haul routes paid rates that covered the cost of this inefficiency plus the cost of shipping their goods and subsidizing traffic on low-density lines.

The ICC's experience was not unique; other regulatory agencies faced similar challenges. Before partial deregulation, for example, the Federal Communications Commission (FCC) mandated a telephone rate structure designed to encourage universal access to residential telephone service. Commercial customers subsidized residential telephone customers, hence rates charged to commercial customers exceeded the cost of serving those customers. In 1947, when microwave relay technology dramatically reduced the average fixed cost of transmitting long distance phone conversations, commercial customers petitioned the FCC for permission to provide their own private line service. The FCC resisted the new competitive forces for decades, since departure of large commercial customers from the system threatened the financial integrity of the cross-subsidy strategy, thus slowing the introduction of the new technology. This apparent conflict between the two goals of universal access and technological innovation was an artifact of the cross-subsidy regulatory structure. If low income residential access had been financed directly as a government budget item, technological innovation would not have generated this conflict.

3.3. Competition from Loophole Innovation

Even with comprehensive authority over rates and routes for both railroads and trucking common carriers, the ICC faced continued pressure for change. Profit-maximizing customers on high-density lines faced shipping rates substantially higher than the cost of shipping their own goods. ICC regulatory authority over common carriers

could not prevent these shippers from transporting their own goods via private or contract carrier. Loss of these customers from the regulatory market clearly weakened the railroads' ability to cross-subsidize rural routes. The irony of this threat to the regulatory structure is that much of the common carrier and private carrier cost advantage stemmed from the regulatory structure itself. Absent the regulated cross-subsidy rate structure, common carriers and private carriers probably would not have posed such a significant threat to common carriers. This phenomenon, entrepreneurial innovation that is economic only because it exploits a regulatory loophole, occurs frequently at the boundary between regulated and market sectors. Kane (1981) coined the phrase, "loophole innovation", to describe such innovations that are profitable only because of regulatory distortions.

3.4. Industry Restructuring in Response to Changing in Market Demand

The third threat to the ICC regulatory structure came from significant shifts in the demand for transportation service as manufacturing activity in the northeastern US declined. An unregulated firm faced with a major decrease in demand would downsize and restructure. ICC reluctance to permit railroads to discontinue service on any route, and rigidities built into the rate structure prevented the necessary industry rationalization. Rather than face a Schumpeterian gale of creative destruction, the ICC attempted to maintain the status quo. The result was that major northeastern railroads, generally viewed as the backbone of the northeastern transportation system, declared bankruptcy by the early 1970s. Faced with imminent collapse of the northeastern rail system, Congress subsidized

formation of a private corporation, Conrail, to operate the northeastern railroads and subsequently deregulated the rest of the industry in 1980.

U.S. policy makers continue to struggle with the fundamental conflict between competitive market forces and the tempting public strategy of providing social services indirectly via private-firm mandate. This conflict, for example, underlies the current U.S. debate over health care reform. While government programs pay for health care for some indigent patients, hospitals have traditionally provided uncompensated care for other indigent and uninsured patients not eligible for government programs. This system was workable in past decades when hospitals were not subject to strong competitive forces. Increasing efforts to control high health care costs are leading, however, to dramatic increases in competition among health care providers. This new reliance on competitive market forces to control costs is not compatible with the traditional reliance on hospitals as uncompensated providers-of-last-resort for indigent patients. The problem can be seen clearly in a small city with two large hospitals, one of which has traditionally provided most of the community's uncompensated charity care. In the emerging competitive market where hospitals must submit competitive bids to treat groups of patients, the hospital providing the lion's share of uncompensated care cannot expect to bid successfully. Some analysts advocate addressing the problem by mandating that all hospitals provide a "fair share" of charity care. This approach will provide only short-term relief from the underlying problem, however. Requiring hospitals to provide a social service, such as charity care for low income patients, only accelerates the shift toward non-hospital care centers such as

outpatient surgery centers and non-hospital intermediate care facilities, which will create further pressure for reform.

4. Competitive Issues: Regulation and State Ownership

Mandating that private firms finance social services through cross-subsidy pricing is a tempting government strategy. Both industrial regulation in the U.S. and state ownership in China provide convenient vehicles for government mandates that individual firms finance provision of uneconomic services. U.S. regulated firms finance these services via profits earned in other profitable markets; Chinese SOEs finance these services via a combination of profits and state subsidies. As the Chinese SOE increases its focus on profit-maximization, Western experience is expected to be increasingly relevant. As this experience indicates, a policy mandating that profit-oriented firms provide social services is not a viable long-term strategy. The financial integrity of the cross-subsidy system requires insulating the firm from competitive market forces via strict controls on entry and exit. Entry must be limited because competitive entry into the high-profit markets would undermine the source of cross-subsidization, and the firm cannot be allowed to exit unprofitable arenas unless the social goal is to be foregone. Furthermore, entry and exit are sources of economic as well as political instability, and preventing this is itself a goal not only of many governments, but also of the workers and managers which may influence them.

While these entry and exit restrictions are essential to maintain the cross-subsidy, they also introduce serious problems into the regulatory or SOE framework. Preventing entry in order to protect the higher-profit markets frequently requires blocking the use of innovative new technology, while the existence of profitable protected sectors induces inefficient loophole innovation. In addition, it is politically difficult for a regulator to make decisions when industrial restructuring is necessary. When decisions to declare bankruptcy or discontinue service are made by market participants in response to market pressures, the decision is easier because it is more impersonal. It is clear from the U.S. regulatory experience that entry and exit are critical components of an efficient industry, and therefore that indirect taxation and subsidization through regulation is a costly way to meet social targets.

4.1. The Regulatory Dialectic

In both the United States and China, government would like to enjoy the benefits of market efficiency without enduring any of the harsh realities of market processes. Efforts to strike a balance between these inconsistent goals require constant revision. In his study of the U.S. banking sector, Kane (1981: 355) explains the "regulatory dialectic", in which, "market institutions and politically imposed constraints reshape themselves in a Hegelian manner, simultaneously resolving and renewing an endless series of conflicts between economic and political power." Regulation leads to private efforts to get around regulation, and this leads to the expansion of regulation to prevent it from being

undermined. Borders between regulated and unregulated sectors, like borders between state-owned and non-state firms, are unstable. Competitive markets encroach on uncompetitive ones unless state control expands.

Jefferson and Rawski (1995) have observed a similar dynamic and endogenous dialectic in the Chinese reform process. Initial openings in the web of the original socialist economy create new tensions which are ultimately resolved by new reforms. Partial reforms lower barriers to entry, destabilizing markets and increasing competition. This reduces the quasi-rents that once accrued to both government agencies and state firms; these firms cope by reducing costs and restructuring, lobbying for subsidies and intervention, or pressing for further deregulation to permit increased entrepreneurial activity. National, provincial, and local governments have followed with the latter response as often as not.

An example of this unstable boundary problem is provided by the proposed reforms for the Chinese banking sector. Reforms have undermined the strength of the industrial SOE, and so the government must either extend state control to the non-state sector or expand the scope of reform to encompass new sectors. Separating commercial lending from state social policy may help to make SOEs less of a burden on the state, but it extends the problems of competition to a new sector. If the state continues to effectively guarantee SOE loan repayment, bank lending patterns will not change. If this guarantee ceases, what will prevent the collapse of the state banks with portfolios dominated by SOE loans? What will prevent the undermining of the bank's social goals as new banks enter and skim off the profitable markets? The regulatory dialectic suggests that if commercial banks are

permitted to forsake their social goals, it will not be long before policy banks are the only support available to an unprofitable majority of SOEs.

4.2. *Impact of Ownership Reform*

The external factors of competitive entry and exit are perhaps more important to the long term viability of the SOEs than the internal incentive problems stemming from state ownership. While private ownership may clarify responsibility and help to resolve the principal-agent problem, the evidence for the presumed inferiority of state ownership is inconclusive in regulated or uncompetitive markets in which entry and exit does not occur. In industries subject to natural monopoly or a heavy regulatory burden, private firms may not be more efficient. For example, Bhattacharyya, Parker, and Raffiee (1994) found that the overall efficiency difference between publicly-owned and privately-owned U.S. water utilities was insignificant.

This study matches similar results by Feigenbaum and Teeples (1983), Atkinson and Halvorsen (1986), and others.⁵ In fact, some studies (e.g., Färe, Grosskopf, and Logan 1985) have shown that, at least in the provision of utilities, public ownership may have significantly lower costs due to the lower burden of regulation. Furthermore, a study of U.S. electric utilities prior to government regulation estimated that public enterprises were significantly more efficient, perhaps due to a superior *esprit de corps* (Hausman and Neufeld 1991). Private ownership may only matter in potentially unregulated competitive

⁵ See Boardman and Vining (1989) for a review of the literature on this subject.

markets, such as garbage collection, in which private or contract collection is generally found to be significantly less costly than publicly-owned municipal collection (Savas 1980). There is a growing consensus that in the absence of severe externalities, competition under well-developed markets matters more than ownership (Kay and Thompson 1986).

4.3. Crucial Role of Social Services Reform

SOEs are not well-positioned to succeed in competitive markets, however, with their current social service burden. Unless future Chinese reforms are better able to address the need to meet social goals some other way, the problems of the state enterprises will increase as reform progresses. Chinese industrial reforms initially began with efforts to increase the enterprise's autonomy and improve its profit motivation. While increased autonomy did help to liberate the SOE from some of the more extreme social goals of the party apparatus, neither of these reforms positioned SOEs to compete effectively. Current reform proposals contemplate not only further reforms in management, but also the injection of private capital into the SOE, along with the incentives of private ownership. As reforms strengthen competitive market forces in China, SOE financial distress is likely to increase. Western experience suggests that increasing government subsidies will strengthen the position of officials who advocate protecting SOE profitable markets from competition. Western experience also suggests that protecting profitable markets and prohibiting exit from uneconomic markets leads to inefficiency and rigidity.

Government intervention is essential in all economies, but it must be crafted carefully. Industry regulation and state ownership are not viable strategies for meeting social goals in the long run. Meeting social goals indirectly through private firm mandates increases society's costs, since society must bear the cost of enterprise inefficiency in addition to the cost of the subsidy, and the inflexibility of this approach will only worsen the situation over time. Meeting social goals with direct taxation and subsidization, however, is possible if efficient firms and competitive markets provide a solid tax base for the state. Preventing the exit of inefficient enterprises is a no-win situation, regardless whether the source of inefficiency lies in the firm itself or the system it faces.

5. Conclusion

This paper has argued that some of the problems of reform in the Chinese state-owned enterprise closely parallel the experience of regulated industries in the United States. The endogenous process of Chinese economic reform described by Jefferson and Rawski is identical to Kane's regulatory dialectic; whether state control expands or contracts in response, it is clear that the boundary between pockets of state intervention and less controlled firms is unstable. When either partial regulation or partial state ownership is used to provide social goods, entry and exit must be prevented to maintain cross-

subsidization from other profitable sectors.⁶ This causes loophole innovation, hampers technological progress, and is ultimately self-defeating.

One hesitates to speak of historical inevitability when discussing a socialist economy, but it appears from this analysis that successful efforts to reform Chinese state enterprises will place the SOE in a position similar to that of regulated U.S. industries prior to their deregulation. At that point, disposition of the SOE social service responsibility will be a critical issue. The pressure for deregulation of several major U.S. regulated industries stemmed from the fundamental incompatibility between the firms' two roles of both maximizing profit and providing uneconomic social services. As China moves towards the Socialist Market Economy, even an appropriately-motivated SOE will face precisely the same dilemma.

⁶ For the SOE, it is irrelevant whether the cross-subsidization is from within the firm or from state revenues derived from the profits of another firm. If those profits are contested and eroded, the subsidization of state-desired goods becomes increasingly difficult.

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