In a socialist economy, when a state-owned enterprise (SOE) incurs losses, the government often provides it with additional funding, cuts its taxes, and offers other compensations. Coincidentally, the managers of an SOE also expect to receive financial assistance from the state. Such a phenomenon is called the soft budget constraint (SBC), a term coined by János Kornai (1986). Kornai attributes many problems in a socialist economy to the existence of the SBC. To achieve successful reform of both the SOE’s and socialist economies, it is imperative to eliminate the SBC. However, the SBC phenomenon continues to exist in transitional economies, even after SOE’s are privatized (World Bank, 1996 p. 45).

There is a large literature on the SBC. Mathias Dewatripont et al. (1996) and Eric Maskin (1996) provide surveys on the recent literature. According to Kornai (1998), there are two types of explanations for the existence of the SBC: the exogenous and endogenous. Explanations of the first type attribute the existence of the SBC to various exogenous reasons, including the paternalism of a socialist state and the government’s aims for job creation or for gaining political support (Kornai, 1986). Explanations of the second type view the SBC as an endogenous phenomenon, arising from a time-inconsistency problem (Dewatripont and Maskin, 1995). For an inefficient, uncompleted investment project, the state or creditor may have incentives to refinance the investment because the marginal benefit of refinancing exceeds the marginal cost of abandoning it. Yingyi Qian (1994) attributed the shortage of goods in socialist economies to the SBC based on such a time-inconsistency argument.

In this paper, we provide another explanation for the prevalence of the SBC in socialist and transitional economies. We will argue that the SBC is rooted in the state’s accountability problem. The traditional Stalinist system was designed to facilitate the establishment of certain strategic SOE’s, which were not viable in a market system. To establish the nonviable SOE’s, a socialist government distorted the prices of all kinds of inputs and of outputs and used administrative measures to allocate these inputs and outputs according to plans. However, due to information and coordination problems, the state could make wrong decisions regarding investment/production and fail to deliver necessary materials and inputs in time. Consequently, the state, instead of SOE’s, was accountable for the failures and needed to allocate additional credits and other assistance to the SOE’s in order to complete the investment and production. As such, the SBC arose.

After the transition to a market economy, many strategic firms still remain nonviable in a market economy. For strategic purposes, the state needs to support these firms. Moreover, most firms in a transitional economy carry many types of policy burdens, inherited from the pre-transition system (Lin et al., 1998). Because the state is accountable for the losses arising from policy burdens, the SBC phenomenon persists. In a market economy, the state’s attempts to build nonviable industry and the state’s policy burdens on enterprises will also lead to SBC.

### I. Viability of Strategic Industries and the Traditional Stalinist System

To understand the SBC problem in a traditional socialist economy, one needs to understand the issue of the viability of strategic
industries and its relation to the origin of the Stalinist system. We define the term viability according to the expected profitability of an industry in a perfectly competitive open-market economy. An industry is viable if firms in the industry have a socially acceptable expected profit without external assistance. An industry that exists spontaneously in a perfectly competitive market economy should be viable because, if an industry is nonviable, it will either die out or never exist. One reason that may give rise to the nonviability of an industry is the inconsistency between an industry’s technological structure and the endowment structure of the economy. For instance, if the most cost-effective, technological structure of an industry is very capital-intensive but the economy is very capital-scarce, the industry will not be viable in the face of international competition. An industry may also become nonviable if it is a labor-intensive industry and if the labor (capital) in the economy has become relatively scarce (abundant) due to the upgrading of the economy’s endowment structure in the development process.

The Stalinist economic system in a traditional socialist economy is known for its planned administrative control of resource allocation and its bias toward the growth of heavy industries. The rise of the Stalinist economic system in the late 1920’s was rooted in the Soviet Union’s attempt to accelerate the growth of nonviable heavy industries. The rise of the Stalinist economic system in the late 1920’s was rooted in the Stalinist system’s attempt to accelerate the growth of nonviable heavy industries.

Russia became a socialist country (the Soviet Union) in 1917 after the Bolshevik revolution. However, the Stalinist system did not come into existence until 1928–1929, when Joseph Stalin harshly pushed forward his heavy-industry-oriented development strategy. Right after the socialist revolution, the Soviet Union adopted War Communism, which was replaced by the New Economic Policy (NEP) in 1921. The economy under the NEP was a market economy with the government’s control of a few “commanding heights” (the largest strategic enterprises). After consolidating his power, Stalin initiated, starting in 1928, a series of five-year plans (FYP’s) to pursue an ambitious, heavy industrialization. Consequently, heavy industry’s share in the total industrial outputs increased rapidly from 31 percent in 1928 to 63 percent in 1937 (Paul R. Gregory and Robert C. Stuart, 1990 p. 94).

However, the Soviet Union had been a relatively low-income agrarian country prior to the 1920’s. Its per capita income in 1928 was only about one-fifth that of the United States (Angus Maddison, 1995). Heavy industries, the most advanced industries of the time, were very capital-intensive and were the comparative advantage of high-income countries. The rapid expansion of heavy industries in the Soviet Union actually pushed them beyond their viability.

Theoretically, it may appear to be more efficient to subsidize directly the expansion of nonviable heavy industries by taxing the other sectors and maintaining the market system. However, in Soviet Union in the 1920’s, the resources for supporting the expansion of heavy industries were derived mainly from the agricultural sector. The state’s ability to collect taxes in general was quite limited, given the low-income agrarian economy. Moreover, the scale of taxes required for supporting the drives of heavy-industry expansion would be too large to be politically acceptable. Therefore, the state monopolized the agricultural market and artificially suppressed the procurement prices of grain and other agricultural products. Meanwhile, an all-out collectivization movement was initiated to facilitate agricultural procurement and to control agricultural production. Similarly, interest rates, foreign-exchange rates, wage rates, and prices for most material inputs were artificially suppressed to facilitate the mobilization of resources from the other sectors of the economy to support the expansion of heavy industries.

The artificially suppressed prices induced a total imbalance in the supply and demand for credits, foreign exchange, agricultural products, and other materials, and they turned the Stalinist system into a shortage economy. To guarantee that the limited resources would be allocated to heavy industries, the state needed to have a plan that indicated priorities for each project and then to use administrative measures to allocate the limited resources according to the state’s strategic goal. In this way,
the market was replaced by the plan (Lin et al., 1996 Ch. 2).

The Stalinist system was imposed on the Eastern European countries after World War II. However, China adopted the system voluntarily. When a socialist government was founded in 1949, China was an agrarian economy. The government's ambitious drive for the heavy-industry-oriented development strategy was formed in the first FYP in 1953. At that time, the per capita income in China was only about 7 percent of that in the United States (Maddison, 1995). The viability of heavy industries in China was thus even more tenuous than in the Soviet Union in the 1920's. For the similar purpose of mobilizing resources for heavy industries, the Stalinist planned system was transplanted to the Chinese economy.

II. Plan Failure, Accountability, and Soft Budget Constraint in the Traditional Socialist System

In the Stalinist system, because of the price distortions, an SOE's profitability was determined mostly by its plan-determined output and input prices. Therefore, it was impossible for the state to observe the manager's performance by simply observing the firm's profit level alone. The replacement of the market by the plan also made it impossible for the state to gauge the manager's performance indirectly from competition. Under such conditions, managerial discretion was a serious problem for the SOE. As a consequence, the SOE was deprived of any autonomy in decision-making regarding production, marketing, employment, and investment. The deprivation of managerial autonomy is a second-best institutional arrangement for solving the problem of managerial discretion (Lin et al., 1998). As such, the state administratively determined the SOE's production target, allocated the inputs to the SOE according to its production plan, and covered all the SOE's expenditures by fiscal appropriation. In return, the SOE delivered all its outputs and remitted all its revenues to the state.

If the planning bureau could coordinate the plan targets with the required resources and could deliver the resources to an SOE on time and in the right quantity and quality, the manager of the SOE would be accountable for the success and failure of implementing the plan. However, because the plan target was often too ambitious to be supportable by the available resources and because the plan often lacked internal consistency, the planning bureau from time to time unavoidably failed to deliver the right quantity and quality of inputs to an SOE on time according to the plan.¹ In this case, the state was accountable for the SOE's failure to implement the plan and was obliged to give additional time, credits, and other resources to enable the SOE to complete the investment project or production target.

Moreover, the state did not have enough information to distinguish between the failures due to the plan's coordination problem and those due to other causes and was obliged to be responsible for all failures. In the presence of the SBC, a manager could get away from being responsible for the consequences of his or her own behavior, and therefore moral hazard became a serious problem in the Stalinist system. All the undesirable consequences of the SBC, as described by Kornai (1986), became prevalent. However, the state's accountability of plan failures is at the root of the SBC in the traditional Stalinist system.

III. Policy Burdens and the SBC in a Transitional Economy

Due to the SBC and other problems, the traditional Stalinist system was very inefficient. Almost all countries adopting the Stalinist system have now begun a transition from a planned economy to a market economy. There are two different approaches. The first one is the big bang or shock therapy, which attempts to achieve stabilization, price liberalization, and privatization simultaneously or in a short sequence. Eastern European and former Soviet Union countries in general have followed this

¹ Western nations' estimation of national income, industrial output, producer goods, consumer goods, and so on in the Soviet Union's first FYP ranged between 39 percent and 70 percent of the targets (Gregory and Stuart, 1990 p. 109).
approach. The second one is a gradual, piece-meal, and incremental approach of which China's transition is an eminent example. While the performances of these two approaches are very different, the persistence of the SBC in transitional economies is common to both approaches. The state's accountability is again at the root of the SBC. In addition to the viability problems of SOE's, policy burdens inherited from the traditional Stalinist system also force the state to be accountable for the poor performance of many SOE's.

A. Viability

As argued above, heavy industries were not viable when low-income, agrarian economies adopted the Stalinist system. After several decades of socialist development, the more capital-intensive sectors of heavy industries may still be nonviable in those economies. Therefore, during the transition to a market economy, many heavy-industrial firms (e.g., many military equipment firms) are not profitable. Moreover, some industries that might have been viable before the adoption of the Stalinist system may have become nonviable after the transition because of the change of the economy's comparative advantages. A pertinent example is the textile industry in Shanghai. Before the socialist revolution, Shanghai was the capital of China's textile industry. Because of the accumulation of capital and rapid economic development in Shanghai, especially after the start of the recent reforms, Shanghai's labor has become very expensive. Therefore, the labor-intensive textile industry has become nonviable in Shanghai.

The state may still want to maintain the nonviable heavy industries because of strategic considerations. The state may also not allow the labor-intensive, nonviable, nonstrategic enterprises to become bankrupt, because of concern about political consequences of unemployment that may accompany the bankruptcy, as well as the issue of policy burdens that will be discussed below. In any event, the state must provide various types of assistance to keep the enterprises floating, whether the enterprises are privatized or not.

B. Policy Burdens

All SOE's, except for those new ones founded after the transition, inherited some types of policy burdens from the previous system (Lin et al., 1998). The major burdens are as follows:

(i) The retirement pensions and other welfare costs.—In the Stalinist system, the salary of a worker was only enough to cover his or her current consumption. Housing, medical needs, pensions, and other needs were covered directly by the state's fiscal appropriation. During the transition, the responsibility for covering these expenditures for the incumbent and retired workers has shifted to the enterprises. Therefore, old enterprises have an unfavorable cost burden in competing with new enterprises.

(ii) The redundant workers.—The bias toward the development of capital-intensive heavy industry did not create enough jobs to meet the demand of an increasingly larger population. Therefore, the socialist government often assigned more workers than necessary to the SOE's. Before the transition, the increase in wage funds was automatically compensated by the state's fiscal appropriation. After the transition, the enterprises have to be responsible for their own workers' wages, and redundant workers have become a burden. The enterprises may not be in a position to lay off their redundant workers because the workers themselves are not responsible for their own redundancy.

(iii) The persistence of price distortions.—In the case of countries adopting the gradual approach to transition, such as China, the prices of certain products and services continue to be suppressed for subsidizing firms in nonviable industries or consumers.

The above policy burdens may exist no matter whether the enterprises are privatized or still owned by the state. Because the state is accountable for the policy burdens, the
enterprises, profitable or not, will bargain with
the state for *ex ante* policy favors, such as access
to low-interest loans, tax reductions, tariff
protection, legal monopolies, and so on, in or-
der to compensate for the burdens. The state
will be in a difficult position to resist the en-
terprises’ pressures for such favors.

In addition to policy favors, if the enter-
prises still have some losses, they will again
request that the state offer some *ex post*, ad
hoc administrative assistance, the standard
case of the SBC. Because each enterprise has
somewhat different burdens and receives dif-
f erent favors, it is very difficult for the state to
determine the net impact of policy burdens on
the enterprise’s costs. Therefore, the enterprise
will often ascribe all its loss to the state’s pol-
cy burden, and the state will be in a difficult
position to shun the responsibility. The SBC
thus continues to exist.

The increase of managerial autonomy and
thus the possibility of managerial discretion
after the transition allow the managers to have
a personal stake in obtaining both the *ex ante*
policy favors and the *ex post* administrative
assistance. The rent-seeking activities for the
above purposes are thus found to become even
more prevalent after the SOE’s are privatized
(Josef Brada, 1996).

The roots of the SBC in transitional econ-
omic economies rest in the nonviability of some enter-
prises and the policy burdens that most enter-
prises still carry. If the state decides to
keep the enterprises in a nonviable industry,
the state’s supports in the form of *ex ante*
policy favors or *ex post* administrative assistance
cannot be eliminated, and privatization may
only increase the enterprise’s incentive for
rent-seeking. For enterprises in viable indus-
tries, the prerequisite condition for a suc-
cessful enterprise reform is the elimination of
policy burdens. Without policy burdens, the
enterprises must be accountable for their own
performances and can no longer expect policy
favors and administrative assistance. Their
budgets can thus be hardened.

**IV. Concluding Remarks**

In this article, we have analyzed the root of
the SBC phenomenon in a traditional Stalinist
economy and in a transitional economy. The
issues of viability and policy burdens will also
arise in other economies. If the state attempts
to accelerate the growth or avoid the demise
of nonviable industries, the SBC is necessary
for the survival of enterprises in those indus-
tries. South Korea’s support of its chaebols in
its drive to develop the heavy-machine and
heavy-chemical industries in the 1970’s is an
eminent example for the first case, and the
British government’s protection of coal mines
is a well-known example for the second case.
The policy burdens may also arise in a market
economy when the state asks enterprises to
employ more workers, to provide below-
market-clearing prices of electricity, transpor-
tation, and mail services, and to take other
actions that increase the enterprise’s costs. Un-
less the costs are easily measured and the com-
ensation for the costs is transparent, the SBC
phenomenon will exist in any economy.

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