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18 How Does the Transitional State Behave? Evidence from Retained State Ownership in Mongolian Privatization

Georges Korsun and Peter Murrell

1 Introduction

János Kornai's contributions to economics are rightly renowned for their deep conceptual advances, which have stimulated much work by other researchers, promoted extensive debate, and become part of the lexicon of the economics discipline. All scholars of comparative economic systems, for example, are versed in the notion of overcentralization (Kornai 1959), in the concept of a soft budget constraint and the concomitant economics of shortage (Kornai 1980), and in the idea of the affinity between ownership forms and coordination mechanisms (Kornai 1986).

A less noted aspect of Kornai's work is its methodological style, perhaps best exemplified by the arrangement of the titles of the following two works: *Overcentralization in Economic Administration: A Critical Analysis Based on Experience in Hungarian Light Industry* and *The Affinity Between Ownership Forms and Coordination Mechanisms: The Common Experience of Reform in Socialist Countries*. The conceptual insight embodied in the titles derives from deep study of those real-world microeconomic processes identified in the subtitles. This is the hallmark of Kornai's work the attention to empirical detail that precedes the inductive reasoning, which in turn results in the theoretical insight.

If we are to use this empirically based, inductive approach for the burgeoning field of transition studies, then we are now in the phase where grand conceptual theorizing has to take a back seat to collection of information and to detailed empirical study of the ongoing processes in the many countries undergoing economic revolution. Kornai's observations on the evolution of financial discipline, the causes of recession during transition, and the role of the state are models in this respect (Kornai 1992, 1993, 1994).

The present chapter contributes to knowledge of transition processes by offering information on the behavior of the state in transition. In debates on the strategy and tactics of reform that took place in the beginning of transition, one of the prime areas of contention was how the state would behave in this new market environment. Sweeping visions of economic reform were based on strong assumptions about how the state would behave. But we now have enough years behind us, and enough empirical information to digest, that we are able to examine these assumptions.

Mongolia is a small country at the opposite end of the spectrum from Kornai's Hungary in terms of standard of living, degree of pretransition reform, and geography. But it offers interesting evidence for the same reason as Hungary—there has been a distinctive style to its policies, with Mongolia being one of the most advanced reformers in the set of very poor transition countries.

In Mongolia, as in many countries, the state held residual shares in enterprises that went through the privatization process. The questions addressed in the following are what determined the size of these residual shares and what does this tell us about the way in which a reformist transitional government behaves. In answering this question, we follow Kornai's methodology of inductive reasoning, examining what the data show before proceeding to broader interpretations of the results.

In the next section, we briefly describe the Mongolian privatization program. The third section presents evidence on the size and the nature of residual state ownership. The fourth section contains a regression analysis, with residual state share as the dependent variable, and interprets the results in terms of the basic characteristics of the postsocialist environment. The fifth section provides further interpretation using theories of privatization that have been developed recently. Concluding comments appear in the last section.

2 Mongolian Large-Enterprise Privatization

For seventy years, Mongolia was a *de facto* republic of the Soviet Union, although it was formally independent. Therefore, its circumstances were highly comparable to those of the new nations spawned by the demise of the USSR. But the fact of *de jure* independence meant that Mongolia began its reforms before the ex-Soviet republics, proceeding very fast on some aspects, such as privatization. Here, we provide basic facts on Mongolian privatization to set the context of the results that follow.[1] A detailed overview appears in Korsun and Murrell (1995*a*).

As the 1990s began, Mongolia was still under the hegemony of the Soviet Union. Only a small amount of decentralizing reform had occurred during the perestroika era. In early 1990, a political revolution led to the country's first free elections. The old Mongolian People's Revolutionary Party (MPRP) won, but it formed a coalition government with the new parties. Significantly, the economics portfolio was given to a member of the National Progress Party (NPP), which had been formed by a group of young economists who were convinced that the country needed truly radical reforms to move ahead. The implementation of the central element of these reforms, privatization, kept remarkably close to a very ambitious timetable.[2] Here we focus on "large privatization," the main component of which was the privatization of large-scale enterprises in the industrial, trade, and service sectors.

The economists in the NPP designed a far-reaching and innovative privatization program, which was accepted swiftly by the government. In January 1991 the government established the Privatization Commission, whose staff had considerable decision-making power, and the Stock Exchange, which performed a key role in the privatization of large enterprises. The basic components of the original program made their way into the law passed in May 1991. The first privatization of a large enterprise took place in March 1992, to be followed by more than 300 more in the next sixteen months.[3]

On the supply side, large privatization was highly centralized. The Privatization Commission staff ordered enterprises to prepare plans to be reviewed by the commission's experts. There was little discretion in the preparation of plans and no discretion in the method of privatization—every large enterprise would be sold for vouchers. However, the number of shares placed on sale was often less than the total, because the state retained part ownership in a large number of enterprises. We focus on this element of the privatization process: In which enterprises did the state keep a residual ownership share?[4]

Decisions on the residual state share resulted from the interactions of a tangle of actors. The Privatization Commission, which had the power to make the detailed decisions, was led by a politician advocating the most extensive reforms possible and was staffed by like-minded individuals. The Privatization Commission was an arm of a government that was much more conservative, but that nevertheless seemed to pay only cursory interest to the details of privatization. Guidelines that defined the enterprises that were to remain under some degree of state ownership could be loosely interpreted by the Privatization Commission staff. Enterprise insiders who had no formal power whatever could nevertheless use obfuscation, delay, and the mobilization of work forces. Informal bargaining rather than open debate led to the decisions on state share. Extensive interviews with the major participants have not served to untangle the objectives and constraints that drove the elements of this bargaining process.[5] Hence, we now turn to a statistical summary of the results of that process to ask whether there are any regularities in the data that might provide some enlightenment.

3 The Size of the Residual State Share

The Mongolian privatization program was as comprehensive as any in the ex-socialist countries. Outside the utility and mining sectors, virtually every enterprise was slated for privatization. But, as in many countries (Perotti 1995; Pistor and

Turkewitz 1994), privatization fell far short of 100 percent private ownership. The state retained stakes ranging from 15 percent to 80 percent in 41 percent of the first 303 enterprises to be privatized.[6]

Table 18.1 presents basic information on the dimensions of the residual state share in those large enterprises that were privatized within sixteen months of Mongolia's first large enterprise privatization.[7] The official decision on residual state ownership in any enterprise was cast in terms of the percentage of shares that would be retained by the state instead of being either sold directly to employees or auctioned on the stock exchange. In the first row of the first column, table 18.1 presents the mean of those percentages for all privatized large Mongolian enterprises. On average, then, the Mongolian government retained an ownership share of more than 20 percent.

In an initial examination of variations in state share, the most interesting disaggregation is along a political fissure, capturing the political environment under which firms were privatized. The Government (or national) Privatization Commission administered the privatization of nearly half of the enterprises, with local privatization commissions administering the remainder. Outside the capital, Ulaanbaatar, and the two other large cities, Darhan and Erdenet, these local privatization commissions were much more likely to be under the sway of old-style politicians than were their national or urban counterparts. The last two rows of table 18.1

Table 18.1
The residual state share in Mongolian enterprises (data for 303 enterprises)

	(a)	(b)	(c)
	Mean percentage of enterprises shares	Percentage of the total net worth of privatized enterprises, book value	Percentage of total net worth of privatized enterprises, stock market valuations
All Mongolian enterprises	20.77	21.12	26.04
Urban ∪ national enterprises	16.73	18.37	24.48
Rural ∩ local enterprises	27.30	31.20	37.64

Urban ∪ national grouping: all enterprises located in the three biggest cities and all enterprises privatized by the Central Privatization Commission.
Rural ∩ local grouping: all enterprises located outside the three big cities that were privatized under local privatization commissions.
Sources: From data provided by the Mongolian Government Privatization Commission and the Mongolian Stock Exchange.

therefore disaggregate the data between those enterprises in rural areas privatized by local commissions (the "rural $\cap$ local" group) and those privatized by the more reformist national or urban commissions (the "urban $\cup$ national" group).

Not surprisingly, this partition shows that the state share is higher in the rural $\cap$ local group than in the urban $\cup$ national one, indeed more than 60 percent higher. At least at this beginning level of analysis, these results suggest an effect of the political orientation of officials on privatization decisions.

The data in the first column, the mean residual state share across enterprises, might not accurately reflect the aggregate economic importance of the state share. One requires means weighted by the size of the enterprises. The remaining two columns of table 18.1 provide the pertinent information. The second column gives the share of the aggregate capital stock of privatized enterprises retained by the state, when that capital stock is measured using book values. Book valuations were the ones that were available to officials when they were making their decisions on state shares. Using these book values to measure the capital stock retained by the state, one obtains essentially the same picture as that from data on mean enterprise shares, as is clear in comparing the first column to the second column.

The figures in the second column reflect backward-looking valuations, whereas the third column employs forward-looking valuations. Each privatized enterprise was sold for vouchers on the stock exchange in a quasi-auction procedure, which resulted in relative valuations being established on the basis of investors' demands. The data in the third column show the share of the aggregate capital stock of privatized enterprises retained by the state when that capital stock is measured on the basis of these investor valuations. This forward-looking measure presents a rather different picture, suggesting a rather larger residual presence of the state in the privatized sectors of the economy.

There are two very different causal mechanisms that could account for the large differences between the data based on book values and the data based on market valuations. First, it is clear that privatization officials had inside knowledge of which enterprises had the best prospects under the new system, for example, on which capital stocks would be less valued in a market economy than in a socialist economy. Given this information, these officials might have decided to retain a larger state share in the enterprises with better prospects, leading to a higher retained share when measured using investors' valuations than when measured using book values.

Alternatively, investors might have decided that enterprises with larger state shares represented a better prospect when these investors used their vouchers in the stock market auctions. If this were the case, then stock-market valuations would be positively correlated with the size of the residual state share, resulting in the different pictures conveyed by the second and third columns of table 18.1.

Obviously the data in table 18.1 cannot discriminate between the two causal mechanisms described in the two previous paragraphs. However, additional information is presented in the next section, which suggests that the first mechanism—the state retaining better prospects—can be ruled out.

4 Interpreting Patterns in the Residual State Share

The following empirical exercise describes variations in the size of the residual state share across Mongolian enterprises. Received theory is so indirectly related to the data at hand that such a theory could be suggestive only in guiding the formulation of a regression equation. Thus, in obtaining the regression results presented in the following, inchoate ideas on the forces determining the residual state were used to suggest variables that were likely candidates for study. The final version of the estimated equation materialized from a process in which these ideas were modified as a consequence of the learning involved in examining the data.

Given the poor base of official data on which to build empirical work, the following statistical exercise relies on both official statistics and information collected from a survey of enterprises. In 1993, a survey questionnaire was administered to all those enterprises in Ulaanbaatar that had already passed through the large privatization program. The results appearing below reflect the circumstances of these enterprises: the sample covers the one-third of privatized enterprises that are in the capital city, rather than the population of more than three hundred privatized firms included in table 18.1.

The results appear in table 18.2. The dependent variable is the percentage post-privatization state ownership in an enterprise. Because this variable is zero for many enterprises in our sample, a tobit regression is the natural tool.[8] With several actors making interdependent decisions in the privatization process, the regression with residual state shares as the dependent variable should be regarded as a reduced form, summarizing a politico-economic equilibrium. The independent variables included in the regression are listed in the first column of table 18.2.

Because a fairly conservative government was in power, one might expect the regression results to reflect the residue of the socialist idea. That is, the state would be expected to retain activities that had primacy and cachet under socialism, particularly large enterprises in heavy industry. But this idea secures only minimal support. In the regression, heavy industry is the omitted sector dummy. For the six

Table 18.2
Patterns in the residual state share in Mongolian enterprises

(a)	(b)	(c)	Tobit regression: percentage state share is the dependent variable (d)	(e)
	Mean values	Standard deviation	Tobit coefficient	Marginal effect
Number of employees	344.609	474.500	−0.009 (−1.67)	−0.001
Total capital stock, in millions of tugriks	44.509	75.432	0.329 (3.90)	0.031
Total debt, in millions of tugriks	19.609	41.504	−0.364 (−1.75)	−0.035
Profits per share, thousands of tugriks	0.048	0.117	−493.119 (−2.98)	46.846
International Contacts: dummy = 1 if firm had contacts with foreign firm in 1990	0.517	0.503	−4.821 (−0.63)	−0.458
State orders as a percentage of output in 1991	48.057	44.554	0.250 (3.11)	0.024
Divestiture: dummy = 1 if firm was a spin-off from a larger firm	0.310	0.465	12.298 (1.22)	1.168
Influence of workers on enterprise decisions in 1990, percentage scale	15.023	1.705	−6.123 (−2.51)	−0.582
Influence of management on enterprise decisions in 1990, percentage	43.839	6.050	−1.052 (−1.73)	−0.100
Date of approval of privatization plan, days after 1/1/91	420.920	98.316	−0.171 (−2.91)	−0.016
Delay between plan approval and sale of shares, in days	121.897	76.002	−0.099 (−1.71)	−0.009
Sector dummy: light industry	0.276	0.450	11.702 (0.70)	1.112
Sector dummy: agricultural processing	0.069	0.255	56.724 (3.03)	5.389
Sector dummy: construction	0.264	0.444	39.812 (3.17)	3.782
Sector dummy: transportation	0.092	0.291	58.844 (3.68)	5.590
Sector dummy: service	0.092	0.291	−143.531 (0.00)	−13.635
Sector dummy: wholesale trade	0.034	0.184	75.996 (3.56)	7.220
Intercept			187.773 (3.16)	
Dependent variable: percentage of shares owned by the state	16.13	21.108		

Notes: There are eighty-seven observations. T-statistics are in parentheses.

sector dummies included in the regression, five coefficients are positive and the only negative coefficient has the lowest t-statistic.[9] Apparently, heavy industry was less attractive to the state than most other sectors, including such poor cousins of socialism as agricultural processing and wholesale trade.

Of course, the size of an enterprise was also a positive feature under socialism, and it would not be surprising if larger enterprises were more likely to be retained by the state. This notion receives mixed support. When size is judged by the number of employees, there is a negative sign on the pertinent coefficient—larger enterprises have a smaller state share. If size is measured by capital stock, the pertinent coefficient is positive.

There is another interpretation of the capital stock variable, however, one that hangs on the particular circumstance of Mongolia, a very poor country that was the recipient of huge amounts of Soviet aid directed at the large enterprise sector. Enterprises with a large capital stock and low debt would have been most favored in the past by such aid, having been built in the context of the Soviet-inspired program of industrialization. Therefore, the signs of the coefficients of the capital stock and debt variables suggest that the government retained holdings in the enterprises that were most favored under the old system. In turn, these enterprises are the ones that are most likely to be vulnerable in the new era, after the demise of the Soviet system and of the CMEA.

Is there evidence that the state maintains ownership in those enterprises likely to be most vulnerable during reforms?[10] There are several variables in the regression that capture the likely vulnerability of enterprises in the new market environment. First, the volume of state purchase orders in 1990 indicates the degree to which enterprises formerly relied on government purchases.[11] Second, pre-reform international contacts are evidence of preparation for the new world of an open economy. Third, the profits-per-share variable measures the profitability of an enterprise on the eve of the privatization process, a measure that certainly reflects some of the difficulties to be faced in the new environment. Fourth, a dummy variable for enterprise divestiture captures the vulnerability of an enterprise that has had existing ties broken in the restructuring process.[12] The signs of the coefficients for all these variables are consistent with the hypothesis that the state retains a larger share of ownership in those enterprises most likely to be vulnerable in the new environment.

In our interpretation of the results so far, we have concentrated on the motives of the government officials making privatization decisions. This is natural because any description of the formal aspects of the Mongolian privatization process would suggest that enterprise insiders could not affect such decisions. The administrative aspects of the program were very centralized. The virtual absence of concessions to workers and managers suggests that the political power of insiders was minimal. Nevertheless, enterprise management could decide whether to cooperate with the privatization process, a power that they might have been able to use to press their concerns.

Two sets of variables examine whether there are any discernible effects of enterprise bargaining power in the patterns of residual state shares. First, our enterprise survey provides measures of how influential an enterprise's workers and management were within the pre-privatization enterprise, relative to government.[13] Second, administrative delays (in approval of the privatization plan and between the approval of the plan and the sale of shares) reflect the power of enterprises to resist central dictates.[14]

The results suggest that the measured power of workers and managers within enterprises is negatively related to the size of state ownership after privatization. Also, the two variables proxying the ability or the willingness to resist privatization—the approval time and the delay variables—have signs consistent with an inverse relationship between state share and enterprise power. These results suggest that enterprise insiders wanted smaller state ownership in their enterprises and that they were able to use their bargaining power during implementation stages, even when these insiders were not able to achieve their goals in the formal political process.

5 Alternative Interpretations

The interpretations of the results that we have provided so far have been based on rather general understandings of the goals of actors involved in the privatization process. Now we turn to more precise recent theories that might be used indirectly to aid in the interpretation of the results. In particular, we examine predictions arising from the theories of Perotti (1995) and of Shleifer and Vishny (1994) and Boycko, Shleifer, and Vishny (1996).

Perotti (1995) reflects on why governments of nontransition countries might retain part ownership in privatized enterprises, when enterprises are being sold for cash. His model rests on asymmetric information. Private investors are uncertain about whether the government intends to intervene in the future in a manner that will reduce the profits of privatized enterprises. That is, investors are uncertain whether the government is a committed one (to policies of nonintervention) or a populist one. A committed government can credibly convey this information by retaining part ownership for some time. Temporary residual state ownership maximizes the value of privatization sales made by the committed government, because a higher price is extracted when the retained shares are sold in a later period, after the government has been able to present credible evidence of its commitment through the implementation of policy that affects the return on the shares. In contrast, a populist government maximizes its receipts from privatization by selling all shares immediately, because the value of any retained shares would fall once the government necessarily showed its hand.

Given that Mongolian privatization sales were not for cash, but rather for vouchers, there remains the question of whether Perotti's analysis is pertinent here. The question of pertinence hangs on whether the Mongolian government had a strong positive incentive to collect vouchers speedily (by selling all shares for vouchers rather than retaining some ownership). If the government had such an incentive, then it faced a trade-off analogous to that in Perotti's model —whether to maximize the immediate collection of vouchers or to retain some shares in order to sell them later for cash.

In the Mongolian case, it is clear that the government did have a very strong incentive to collect vouchers immediately The success of the privatization program was politically very important, and an indicator of that success would be the number of citizens who had used their vouchers. Moreover, the fewer vouchers left in the hands of the populace after the initial phases of the privatization program, the less political pressure there would be at a later date to place additional assets on sale for vouchers. The voucher sale of such assets would be costly to the government, given that these assets would also have a cash value. Therefore, we can conclude that the Mongolian privatization did have characteristics that conform approximately to those of Perotti's model.[15]

Perotti's (1995) predictions do help in offering alternative interpretations of some of the results in table 18.2. For example, if there is a sequence of privatizations, he predicts that complete sales will come later in the privatization process, after a committed government's intentions are clear. This conjecture is obviously consistent with the negative coefficient on the variable measuring the amount of time that elapses between the beginning of reforms and the approval of an enterprise's privatization plan (the date at which the residual state share is finally determined.)

Perotti (1995, p. 856) also predicts that there will be higher residual state shares for enterprises that are earning rents from protected markets. Such enterprises offer larger potential opportunities for intervention, therefore tempting a populist government and offering greater gains on the residual state share for a committed government that is able to establish its credentials. This prediction is not consistent with the results of table 18.2. If profits are any indication of rents, then our results indicate that enterprises with higher rents have a smaller state share, a result that is inconsistent with Perotti's conjectures.

We now turn to an examination of the theories of Shleifer and Vishny (1994) and Boycko, Shleifer, and Vishny (1996), who explore the interaction between politicians and enterprise managers, predicting when this interaction will be most damaging to general economic efficiency. The larger state ownership is, the more likely that politicians and the enterprise manager will make an agreement that results in an inefficient outcome.[16] If a committed reforming government had this analysis in mind, then it would undertake privatization with a view to binding any future government that might be less reform-minded. Privatization will make it more costly for future politicians to strike efficiency-reducing agreements.

This theory would provide predictions pertinent to the present analysis, if the reforming officials faced limitations on the total amount of privatization that they could accomplish but had flexibility in allocating the residual state share across enterprises. The limitations might arise from political factors, for example. Then, a government committed to reform would apportion the residual state shares so that the privatization process as a whole had the maximum binding effect on future governments. Hence, there would be complete privatization for those enterprises most likely to strike efficiency-reducing political deals with future noncommitted governments and a positive residual state share in those enterprises least likely to offer scope for such efficiency-reducing bargains. For example, Shleifer and Vishny (1994, p. 1018) argue that more profitable enterprises should be privatized first, in as much as larger profits expand the scope for efficiency-reducing bargains.

The prediction ending the previous paragraph is essentially the opposite of the second of the predictions of Perotti (1995), noted above. In Perotti's case a committed government retains higher stakes in enterprises that offer the most scope for political deals in the future, because such enterprises give a committed government most chance to show its pedigree. In our use of Shleifer and Vishny (1994) and Boycko, Shleifer, and Vishny (1996), a reform government tries to restrain a future, less committed government, therefore trying to minimize the scope for future political deals. Hence, there is no essential inconsistency between the two theories. Rather, the two theories embody different assumptions about the expectations of the privatizing government concerning the reform orientation of future governments.[17]

In fact, most of the variables in the regression of table 18.2 can be given an interpretation in terms of the model of Boycko, Shleifer, and Vishny (1996). Two essential elements of that model are used here. First, there is the assumption that explicit subsidies from the state treasury to finance inefficiencies are more costly to politicians than a loss in state-enterprise profits due to an efficiency-reducing bargain. Hence, efficiency-reducing agreements are most likely to occur between politicians and managers of profitable enterprises. Second, the benefits to a politician of aiding an enterprise are positively related to the political power of the workers in that enterprise, implying that politicians are more likely to strike efficiency-reducing bargains with an enterprise with greater political power.

We use this logic in table 18.3 to make predictions concerning the signs of the coefficients on the variables that appear in table 18.2. The logic in each row of table 18.3 follows in a straightforward manner from the model of Boycko, Shleifer, and Vishny (1996).[18] For each enterprise, there is a critical value of the residual state share below which political intervention ceases. This critical value will be lowest in profitable enterprises with workers who are more politically powerful. Given this general logic, the second column of table 18.3 then presents the essential elements of the reasoning for each variable included in the regression of table 18.2. The third column provides the prediction on whether increases in the variable will lead to a greater or a lesser likelihood of efficiency-reducing agreements. Enterprises that have high values for variables that have a "positive" in the third column are then exactly the ones that a committed government would be most eager to privatize, thus leading to a "negative" prediction in the fourth column. This prediction is then matched against the signs of the coefficients in table 18.2, which for convenience are repeated in the fifth column of table 18.3.

As is immediately obvious from table 18.3, there is a high degree of conformity between the predictions loosely derived from the analysis of Boycko, Shleifer, and Vishny (1996) and the results in table 18.2. Certainly, there is a strong case to be made that the vision of the reformers was consistent with that of a reformist government following the implications for privatization of the bargaining model of Boycko, Shleifer, and Vishny (1996).

6 Conclusions

This chapter began by noting the empirically based inductive methodology that has been central to the work of János Kornai, a methodology that has been used in the essay. In interpreting our results, we have also used themes closely connected to ideas that have been central to Kornai's economic vision. In noting that more vulnerable enterprises had larger residual state shares, we have suggested that the reformist government might have been seeking to protect such enterprises from the

Table 18.3
Applying the logic of Boycko, Shleifer, and Vishny (1996) to the interpretation of the variables describing patterns in the residual state share in Mongolian enterprises

(a)	(b)	(c)	(d)	(e)
Variable included in the regression in table 18.2	Essential element of the logic relating this variable to the bargaining between enterprise managers and future noncommitted governments.	Effect of an increase in this variable on the likelihood that future governments would strike efficiency-reducing bargains after incomplete privatization	Predicted sign of the coefficient in the regression in table 18.2 if a reforming government wants to constrain a future government	Actual sign of the coefficient in the regression in table 18.2
Number of employees	The political power of an enterprise increases more than proportionately with the number of the employees and therefore an efficiency-reducing bargain with a larger enterprise is more attractive to the politician	positive	negative	negative
Total capital stock	Enterprises with the largest capital stocks were built with Soviet aid and were more closely tied to the old Soviet system. These enterprises would suffer most during transition and be least profitable, reducing the scope for efficiency-reducing bargains.	negative	positive	positive
Total debt	The existence of enterprise debt implies an additional instrument (debt forgiveness) that could be used furtively to aid the enterprise. Therefore enterprises with high debt offer more scope for efficiency-reducing bargains	positive	negative	negative

Table 18.3 (continued)

(a)	(b)	(c)	(d)	(e)
Profits per share	The higher are profits the more scope there is for an efficiency reducing bargain to occur (Shleifer and Vishny, 1994, p. 1018).	positive	negative	negative
International contacts in 1990	The more international contacts, the more likely that the enterprise will be profitable The logic in the preceding row of the table then holds.	positive	negative	negative
State orders as a percentage of output in 1991	Enterprises that relied on state orders in the past are more likely to be unprofitable in the future, leading to the same logic as in the previous two rows of the table	negative	positive	positive
The enterprise was a spin-off	If an enterprise was split up, then both its political power and its profitability would be diminished, reducing the attractiveness of efficiency-reducing bargains to the politician.	negative	positive	positive
(1) Worker influence (2) Management influence (3) Delay in approval of privatization plan (4) Delay in share sale	These four variables represent, or are proxies for, the political power of the enterprise. An enterprise that is politically strong provides greater benefits for the politician when efficiency-reducing bargains are struck	positive	negative	negative
Sector effects, relative to heavy industry	The heavy industrial sector faces the most problems of adjustment and therefore is least likely to be profitable, leading to less scope for efficiency-reducing bargains in the future.	positive	negative	positive

storms that were inevitably coming.[19] Thus, the state was motivated by paternalism, an objective that is much emphasized in Kornai's vision of political economy (Kornai 1980).

We have also shown that our results can be given an alternative interpretation, one that uses major themes of Kornai's work—the bargaining between politicians and managers that results in soft budget constraints. Whether we assume that reformist politicians want to protect vulnerable enterprises or to bind future governments, that assumption is embedded in a implicit framework in which politicians and enterprise managers bargain over state intervention. Such bargaining, of course, is the essence of the process that leads to the soft budget constraints, which Kornai's work has helped to place at the center of both academic and practical economic deliberations.

The implications for the effect of privatization on the economy are therefore unclear. If giving aid to dying enterprises offers large political benefits to politicians, then one could argue that the Mongolians conducted privatization in a manner that will lead to much state intervention in the future. If, following Boycko, Shleifer, and Vishny (1996), the absence of profits makes intervention very costly to politicians, then one could argue that the Mongolians have conducted privatization in a manner that will lead to little state intervention in the future.

Notes

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1. The factual information presented in this paper is based on interviews, numbering in the hundreds, conducted by the authors. Although there are no citations to such sources, any interested reader can contact the authors as to the source of the facts.

2. On other reforms, progress was slower. See Boone (1994) for a discussion of stabilization and Murrell, Dunn, and Korsun (1996) for the development of price liberalization.

3. These are the privatizations that are the subject of the present study. Since the data were collected, privatization has proceeded, albeit at a slower pace. The population of large privatized firms has now reached 500.

4. For details of the subsequent voucher-auction process and its consequences, the reader is referred to Korsun (1995) and Korsun and Murrell (1995*a*).

5. Indeed, many important participants were not aware of the overall dimensions of residual state share.

6. Data on ownership patterns across important groups are surprisingly hard to obtain. Earle and Estrin (1994) present a picture of worker ownership for a sample of the leading major reforming countries, while Pistor and Turkewitz (1994) do the same for residual state ownership. Blasi (1994) presents data based on a sample of Russian enterprises.

7. The first privatization was completed in March 1992. A new government was elected in July 1992, but the privatizations included in our data were prepared before the new government changed any significant elements of privatization policy. Therefore, our data reflect the decisions of the first reform government, which is briefly described in the second section of the paper.

8. In the regression presented, thirty-six of eighty-seven observations are non-limit observations.

9. Given the process of generating the final form of the regression, the use of the t-statistics in the reported results is for descriptive purposes, rather than for conducting tests. To judge the magnitude of the effect of the variable, information is given in the fifth column on the marginal effect (Maddala 1983, p. 60).

10. We phrase the causal mechanism here as the state retaining ownership of more vulnerable enterprises, because this seems to be the most natural way to frame the motives of actors, based on our conversations with officials. There is an alternative phrasing that could be adopted, based on the work of Shleifer and Vishny (1994) and Boycko, Shleifer, and Vishny (1996), which we discuss in the next section.

11. Note that this is not a measure of *present* ties to the state. By 1993, state orders were at much smaller levels than in 1990. This is a measure of *previous* ties to the state.

12. The results of Lizal, Singer, and Svejnar (1994) for the Czech Republic confirm that performance depreciates when enterprises are broken up. Moreover, a number of these Mongolian spun-off enterprises have reemerged in subsequent years in the face of economic pressures.

13. See Korsun and Murrell (1995*b*) for the details of the construction of this variable. In the survey, enterprise directors were asked to give retrospective information, from which this variable was constructed. The retrospective aspect of the variable introduces the possibility that memories are affected by events ongoing at the time of the survey. We feel that this danger of bias is less than that from omitting the variable.

14. This follows information gained in interviews with privatization officials.

15. Perotti (1995, p. 856) suggests caution in applying his model to mass privatization in view of the endogeneity of policy preferences during a systemic transformation.

16. We use the element of the analysis in which it is assumed that managers exercise control rights over the enterprises, an assumption appropriate for Mongolia in the era of privatization.

17. Conversations with government officials lead us to conclude that the Boycko, Shleifer, and Vishny (1996) assumption was the more appropriate one for Mongolia.

18. Convenient extra assumptions are that a 100 percent state share would lead to efficiency-reducing bargains in all enterprises, and that a 100 percent private share would end all such bargains. With this extra assumption, it is easy to see that the allocation of residual state share across enterprises is a constrained optimization problem with the solution allocating higher residual state shares to those enterprises that are least likely to strike efficiency-reducing bargains with politicians.

19. The logic that higher state shares serve to protect vulnerable enterprises follows immediately from the Boycko, Shleifer, and Vishny (1996) framework if we adopt Kornai's assumption of paternalism and assume that rescuing a failing enterprise has much greater political benefits than aiding any other enterprise.

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