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The Effects of History, Ownership, and Pre-Privatization Restructuring on Post-Privatization Governance*

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Abstract for: "The Effects of History, Ownership, and Pre-Privatization Restructuring on Post-Privatization Governance," by Georges Korsun and Peter Murrell

This paper explores the determinants of the configuration of decision-making power in large enterprises immediately following a mass privatization program. The paper examines the relative importance of three conceptually separate determinants of the pattern of power: *history*, the inherited relationships among actors, *ownership*, the ownership mix that is the immediate consequence of a program of mass privatization, and *restructuring*, state action that alters the pre-privatization governance structure of enterprises.

This paper's empirical results reflect upon the speed of change in enterprise governance, the immediate consequences of mass privatization, the effectiveness of direct state restructuring, and the tenacity of history. Conventional wisdom on these facts is grist for debates on transition policy, for predictions on the progress of transition, and for differing accounts of individual country performance. But, few existing empirical studies bear directly on these issues. This is especially the case for studies relevant to the embryonic legal and market environment that is present in the majority of reforming socialist countries.

The data are drawn from a survey of large privatized enterprises in Mongolia, one of the least developed of the reforming socialist countries, but one that has moved relatively fast on privatization. Thirteen months after large privatization began, we surveyed all 106 privatized enterprises in Ulaanbaatar, the capital city. Enterprise general directors answered questions on many details of enterprise structure and operations, including ranking the influence of pertinent decision-making bodies on specific enterprise decisions. It is these questions on influence that provide the dependent variables for this paper.

When examining the determinants of the structure of influence in enterprises, we show that history accounts for more than one half of the variation in the configuration of power that is explained by our three sets of variables. Nevertheless, the effect of ownership is clearly discernible, a fact of some note since our observations occurred very soon after privatization. This observation of an ownership effect is perhaps due most directly to our examining the structure of decision-making within the enterprise rather than changes in enterprise performance itself, which might take longer to discern after privatization. Even the small results of restructuring are noteworthy, given that the state paid little attention to this aspect of policy.

The estimated relationships in the paper offer notable insights into the processes of enterprise reform. In Mongolia, insider ownership, rather than outsider ownership, reduces direct governmental influence within the enterprise. This result is to be expected given the paucity of the means by which outsiders can exert their ownership power in Mongolia, but it is at variance with the predictions of prominent theories of privatization.

We show that the effect of ownership increases over time, but this occurs in an asymmetric way. New bodies of corporate governance gradually gain influence, reducing the power of government, but not that of managerial insiders. The managerial entrenchment feared by many does seem to be taking place, since privatization has no direct effect on the inherited power of general directors.

Pre-privatization restructuring by the state does reduce the power of general directors, simultaneously increasing the influence of the new bodies of corporate governance. But these new bodies have a paradoxical status. They are not the instruments of outsider shareholders, but rather of workers, apparently in their struggles with management. Thus, in contrast to theoretical predictions, we find that outsider ownership is detrimental to the influence of the new bodies of corporate governance.

1. Introduction

This paper explores the determinants of the configuration of decision-making power in large enterprises immediately following a mass privatization program. The analysis is descriptive and does not focus on the testing of hypotheses. Rather, the paper attempts to impart a sense of the relative importance of distinct determinants of the pattern of influence within enterprises.[1] The data are drawn from a survey of large privatized enterprises in Mongolia, one of the least developed of the reforming socialist countries, but one that has moved relatively fast on privatization.

This study focuses on three sets of determinants, history, ownership, and restructuring. *History* refers to the relationships among actors that socialism bestows. *Ownership* captures the mix of different types of owners, in this case those owners that result from a program of mass privatization. We use *restructuring* narrowly, to refer to state action that directly alters the governance structure of an enterprise before privatization.[2]

The results reflect upon the speed of change in enterprise governance, the immediate consequences of mass privatization, the effectiveness of direct state restructuring, and the tenacity of history. For example, we show that history accounts for more than half of the variation in the configuration of decision-making power that is explained by our three sets of variables. Nevertheless, the effect of ownership is clearly discernible, a fact of some note since our observations occurred very soon after privatization. The observation of an ownership effect is perhaps due most directly to the paper's focus on the structure of decision-making rather than on changes in performance, which will likely take longer to discern after privatization.

The estimated relationships presented below offer notable insights into the processes of enterprise reform. In Mongolia, insider ownership, rather than outsider ownership, reduces direct governmental influence within the enterprise. This result is to be expected given the paucity of the means by which

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1. The general empirical approach has been influenced by Schmalansee's (1985 p. 341) study, profitability, which is"fundamentally descriptive", aiming to "yield stylized facts to guide...general theorizing" .

2. That term is often used more broadly, reflecting all state actions taken to change enterprises (Carlin, van Reenen, and Wolfe, 1994, p. 6).

outsiders can exert their ownership power in Mongolia, but it is at variance with the predictions of prominent theories of privatization (see Frydman and Rapaczynski, 1993, and Shleifer, 1994).

We show that the effect of ownership increases over time, but this occurs in an asymmetric way. New bodies of corporate governance gradually gain influence, reducing the power of government, but not that of managerial insiders. Thus, in very conjectural calculations, we gauge the speed with which privatization causes the withdrawal of the state from internal enterprise affairs, estimating that the state's direct influence vanishes five years after privatization. At the same time, the feared managerial entrenchment (Phelps at al 1993, p. 18) does seem to be taking place, since privatization has no direct effect on the inherited power of general directors.

Pre-privatization restructuring by the state does reduce the power of general directors, simultaneously increasing the influence of the new bodies of corporate governance. But these new bodies have a paradoxical status. They are not the instruments of outsider shareholders, but rather of workers, apparently in their struggles with management. Thus, in contrast to the predictions of Phelps et. al. (1993, p. 17), we find that outsider ownership is detrimental to the influence of the new bodies of corporate governance.

The analysis begins in Section 2 with the presentation of a simple conceptual framework for examining changes in enterprise governance during transition. We use that framework to pinpoint the relationships examined in the paper and to identify those outside its purview. Sections 3 and 4 describe the data together with its setting, the transition in Mongolia. Sections 5 and 6 present results on the relationship between the configuration of decision-making power in newly privatized enterprises and variables representing history, ownership, and restructuring. Section 7 explores the relative explanatory power of these three sets of determinants, examining the extent to which each accounts for patterns of influence within enterprises. Section 8 offers concluding observations.

2. Enterprise Governance in Transition

Figure 1 summarizes the context of the results presented below, identifying the variables on which we focus and the relationships among them, placing them within the general framework of enterprise-sector reforms.[3] This paper's dependent variables are the levels of influence of decision-making bodies on a variety of enterprise decisions (variable set I in Figure 1).

In using the structure of influence within the enterprise as dependent variable, this study focuses on a measure that might plausibly indicate changes within enterprises even in the immediate post-privatization setting. Privatization affects enterprises via modifications in corporate governance and in the relative influence of different bodies on enterprise decisions.[4] Such modifications will occur before the outward signs of any privatization-induced adjustments. Thus, changes in the structure of influence might well be the most direct and immediate indicator of whether privatization has had any initial effect. Ultimately, of course, the relevance of these changes lies in the resultant effect on the enterprise's economic performance. But enterprise adjustment might take many years, with many wrong turns along the way.[5]

Enterprise-sector reforms begin with the restructuring of corporate governance in pre-privatized enterprises (variable set R) or, as is often the case, the non-decision that these matters will be ignored, which usually implies that the enterprise becomes self-governing (Aghion, Blanchard, and Burgess, 1994, pp. 1328). Such restructuring might include setting up boards, breaking up enterprises, and changing management.[6] These aspects of restructuring are particularly relevant here, since our dependent variable is

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3. This schema omits myriad reforms, from liberalization and stabilization to changes in accounting standards. Here, the focus is solely on reforms that are specifically aimed at the large enterprise sector.

4. For example, a central goal in Russian was to end the role of the ministries (Shleifer and Vasiliev, 1994).

5. Early in the adjustment process, enterprise performance seem worse in an optimally adjusting enterprise than in one not adjusting, simply because change involves costs, while facing up to the future does not appear in value added.

6. United Nations (1993) provides an excellent survey of the ways in which direct restructuring by the state occurs.

the structure of decision-making within the enterprise, rather than the decisions themselves.[7] Because of the state's lack of administrative capacity, the link between restructuring policy and the formal governance structure acquired by the new owners as a result of privatization (relationship Z_1) can be very tenuous indeed.[8] In Mongolia, actual arrangements often reflected dubious interpretations of laws by government officials responsible for implementation.

At approximately the same time, the state begins to wrestle with the issue of privatization, the important aspect of which for present concerns is the structure of ownership that it imparts (variable set O). The question is not only one of change from state to private, but also the differing shares of various private owners, that is individual outsiders, institutions, or insiders. Again, the relationship between policy, the parameters of the privatization scheme, and outcomes, the structure of post-privatization ownership, is tenuous, the resultant ownership structure often differing very much from that envisaged by the reform's designers.[9] In Mongolia, although the reforms aimed at creating outsider ownership, the individual choices of workers and their families led to a large share of insider ownership.[10] We ignore these complexities in the relationship between parameters of privatization and resultant ownership structure, instead focusing upon the effects of ownership itself.

Ownership affects the structure of influence in at least two ways. First, there is a direct effect, by changing the balance of power within the enterprise and modifying the mix of actors participating in governance institutions (relationship Y_1). Second, there is an indirect effect (Boycko, Shleifer, and Vishny, 1993). The changing structure of ownership modifies the incentives of government in its dealings with the

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7. One could also imagine the state making detailed decisions on the organization of decision-making within the enterprise. This has seldom occurred (Carlin, Van Reenen, and Wolfe 1994, p25) and certainly not in Mongolia.

8. In Poland, for example, commercialized firms languished while changes occurred faster elsewhere (Levitas 1993).

9. The outstanding example here is the Czech scheme, which left a large share of ownership in the hands of investment funds created by state-owned banks (Brom and Orenstein, 1994).

10. Investment funds were not popular in Mongolia.

enterprise. These new incentives will change policies on direct government participation in enterprise governance (relationship Y_2). The new incentives also work more broadly through the politico-economic system to modify policies affecting the enterprise sector (e.g., the hardening of budget constraints), but this consequence of privatization (in the top right of Figure 1) is not captured in our empirics.

A third major determinant of enterprise behavior is the set of relationships between economic agents and the internal structure of influence inherited from the socialist era (variable set H). Because every large enterprise is part social system, relying on networks and customs for its functioning, old internal relationships will be resistant to change, and new ones will form only slowly.[11] Thus, the internal structure of influence might simply perpetuate itself. However, the role of history is not simply perpetuation, but more broadly causation from old to new. For example, those who were well placed in the old system might institutionalize new bases of power after systemic changes, using old informal contacts (Carlin, Van Reenen, and Wolfe, 1994, pp. 40). Similarly, within the enterprise, the old power of managers or workers might be instrumental in reducing the influence within the enterprise of a weakened state.

Figure 1 identifies what the relationships on which we concentrate (solid arrows) and those which we must leave out (dotted arrows). Our estimates of the effects of ownership focus on direct participation in decisions in the enterprise sector (the Y_i's). They do not reflect the more diffuse relationships that work through the politico-economic system, by which privatization could have profound effects on a broad range of policies affecting enterprises. We downplay these broader effects of privatization (appearing in the top right of Figure 1), not because we believe them to be unimportant, but rather because our data will not reflect them. Similarly, we also do not examine enterprise strategies, behavior, and performance. But we emphasize the importance of these various features of enterprise sector reforms by including them in Figure 1. The focus of this paper then is on the variables representing history (H), ownership (O), and restructuring (R) and

11. This follows most directly from the view of the firm developed by Nelson and Winter (1982).

especially the strength of the relationships between enterprise history and enterprise present (X) in relation to the effects of policy measures (Y_i's and Z).[12]

3. The Setting and the Data

Mongolia's peer group is the set of smaller, less developed, ex-Soviet republics. In 1921, Mongolia followed Russia's turn to Communism and in the years that followed the Soviet model was implanted so thoroughly that Mongolia became known as the Soviet Union's sixteenth republic.[13] Soviet dominance lasted until 1990, when, after the first free elections, the old communist party formed a coalition government with opposition parties that had strong reformist agendas.

Comprehensive reforms began in January 1991, but hesitation on some aspects meant that stabilization and liberalization proceeded with fits and starts over the next three years. Such ambivalence did not apply to privatization. The government moved with dispatch to enact legislation, create a national Privatization Commission, establish a stock exchange, and distribute the vouchers that were to be traded in exchange for state assets. Large privatization began only seventeen months after the idea of privatization had first surfaced in public discussion. Within one year of the first large enterprise sale, over 75% of the assets of large enterprises in the manufacturing, service, and trade sectors in the capital city of Ulaanbaatar were privatized. Our results focus on these enterprises.[14]

On the supply side, large enterprise privatization was a top-down process with the Privatization Commission making all preliminary decisions about the order in which firms were to be privatized, the percentage of residual state ownership, and the extent of enterprise restructuring. All enterprises followed the same three-step process of plan preparation and approval, corporatization, and sale of shares for vouchers on the stock exchange. However, the centralization of decisions did not mean that policy was coordinated or

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12. Estrin and Takla (1994) examine whether history matters in firms' adjustment and answer in the affirmative.

13. Mongolia was formally independent, but this fact became important only in the last years of the Soviet Union.

14. We ignore agricultural privatization and that of small enterprises, since these were effectively separate programs.

clear. This was especially the case for the restructuring of corporate governance, on which policy was obscure. Two sets of restructuring decisions were significant, nevertheless. First, over 50% of the directors of enterprises were replaced before privatization. Second, a significant number of enterprises were broken up into smaller units before privatization. In Ulaanbaatar, 29% of privatized enterprises were spinoffs.

Corporatization followed the Economic Entities Law of July 1, 1991, which was hardly apposite for privatizing enterprises. Nevertheless, participants took the law's elements as a model for the institutions of corporate governance. During corporatization, the Privatization Commission, acting ostensibly on behalf of future shareholders, met with general directors and workers in a formal meeting to decide on the charter of the enterprise and to choose the membership of governance bodies. Thus, each enterprise came to privatization with some formal elements of corporate governance in place.

One curious feature of the Economic Entities Law requires comment in order to interpret later results. There was no exact equivalent in the Law to either the Anglo-American board of directors or the German-style management board.[15] Instead, there was a "control council", an institution that seems to be a curious hybrid between the monitoring units of the old centralized administrative system and a German-type supervisory board. According to the vague provisions of the law, control councils were to comprise outsiders elected by a majority of shareholders and were charged "with monitoring the administrative activities of the company".[16] In practice, the first control councils of privatized firms were those picked by enterprise insiders and the Privatization Commission before privatization, and often included insiders, in direct violation of the law.

On the demand side of the privatization process, a quasi-market dominated: every citizen was eligible to participate equally using the privatization vouchers that were tradeable only for the shares of large

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15. New measures, passed after our survey was taken, enacted a requirement that a Board of Directors be instituted.

16. The Mongolian People's Republic Law on Economic Entities, Article 27, in force July 1, 1991. The term *monitoring* in the quote from the law is a rendering of a Mongolian word that is often translated as *controlling*. The weaker translation seems to be consistent with practice, if not with the intent of the law.

enterprises. The Mongolian Stock Exchange conducted the auctions of shares, which were allocated to citizens in response to their voucher-denominated demands. Enterprise insiders had only trivial advantages in the purchase of shares.

The resultant structure of ownership reflected two sets of choices. First, there was the state's decision to retain partial ownership in some enterprises. In the enterprises that we surveyed, the state retained ownership stakes ranging from 15% to 80% in 41% of enterprises, averaging 17% across all enterprises. Second, individual employees chose whether to purchase in their own enterprise or not. Employees overwhelmingly favored their own enterprises, organizing their families in that process. In the surveyed enterprises, the average ownership share of employees and their families was 44%, a figure that was bounded above essentially by the size of families and the number of vouchers issued to each citizen. Mutual funds did not prosper, garnering only 2% of shares.

Thirteen months after large privatization began, we surveyed all 106 privatized enterprises in Ulaanbaatar, which was home to almost one half of the large Mongolian enterprises privatized by the time of the survey.[17] Enterprise general directors answered questions on many details of enterprise structure and operations, including on the influence of pertinent decision-making bodies over specific enterprise decisions. The survey posed thirteen different types of enterprise decisions; these are listed in the first column of Table 1. Based on prior interviews, we had identified seven entities that could be expected to have direct influence on such decisions: shareholders, control councils, general directors, department heads, workers' groups, local government, and central government.[18]

We asked general directors to give their subjective ratings of "how much influence" within the enterprise these seven entities had over each of the thirteen decisions. The respondents were limited to

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[17]. The response rate was 100%, but missing information occurs within answers to individual questions.

[18]. A commentator on an earlier version of this paper noted the absence of banks in this list. This is a reflection of the fact that the survey focuses on decisions made within the enterprises. In any case, banks had little power at the time of our survey. To ensure that our identification of bodies was appropriate an "other" category for decision-making bodies was included in the survey. This was chosen in only an insignificant number of cases.

choosing one element on a four-point scale, indicating strength of influence on each decision-entity combination. For each of the 106 enterprises, this exercise resulted in a ratings matrix of dimension 13 (number of different decisions) by 7 (number of different decision making bodies), each cell containing a single score on the four point rating scale.

4. Influences on Enterprise Decisions

This study's overriding objective is to produce a transparent portrait of the relative importance of history, ownership, and restructuring as determinants of the structure of influence. In pursuit of this pragmatic objective, we convert the ratings described above into a simple numerical scale. This cardinalization procedure reflects the application of simple logic and familiar assumptions.

The ratings of each general director on the four-point scale represent the apportioning of a fixed amount of influence over each decision. These ratings are monotonically related to the influence of an entity, but the exact nature of this implicit relationship is unknown. By making an assumption on the form of this relationship, one obtains an approximation to the numerical value of actual influence.

Assume each manager chooses answers on the four-point scale so that the scores on this scale are proportional to the actual influence (after rounding) that each decision-making body has on the decision in question. This factor of proportionality can vary across managers and across each of the thirteen questions.[19] Given this assumption, the calculation of the relative influence of a decision-making body on a specific decision follows automatically, by dividing that body's four-point-scale score on that decision by the sum of the scores of all bodies on the same decision. Of course, it is the assumption of proportionality that drives everything here. But that observation only tells us that the resultant numbers are an approximation to reality,

19. Because the factor of proportionality can vary over responses, it is possible that more reliable results are obtained by cardinalizing the data than by directly comparing the responses of different managers on the four point scale. If different managers have different conceptions of the absolute meaning of points on the scale, then similar responses represent different amounts of influence, a difficulty that might be corrected through our procedure.

and this is the appropriate way to view the cardinalization. The presumption that our cardinalization approximation is a reasonable one is implicit in everything that follows.

Table 1 contains summary results of the cardinalized scores on relative influence, which have been rescaled to percentages. Each cell contains the mean influence score of a specific body on a specific decision. The last row lists the means of the aggregate influence scores, where the aggregate influence score of a decision-making body in a single enterprise is the average of that body's influence scores across all thirteen questions. To identify the cases in which the influence of a body varies across decisions, the Table highlights those mean scores that are significantly different from the median entries in the same column.[20]

Table 1 strikingly illustrates an enterprise sector in transition. Shareholders and control councils, the new elements of governance, do have some power, but less than that of general directors and their department heads, who were able to take advantage of the interregnum after the fall of centralized power and before the new private owners. The power of owners and their representatives is highest where appropriate in a normal corporate setting -- on the distribution of profits and managerial compensation.[21] Thus, the first four columns reflect a division between ownership and control analogous to that in any large capitalist corporation. In contrast, the last three columns reflect the past. The influence of central government is present, highest in capital markets and in trade relations, where liberalization has proceeded most haltingly in many reforming countries. Local government involvement is highest in pricing matters, a common feature when the removal of central controls is not accompanied by the power to stop ad hoc actions by local officials. Worker groups exert their influence over wages and dismissals.[22]

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[20]. The results reflect t-tests at the 1% level. Formally, these tests are not exact since the median column entry is found using all the observations in the column, implying that the two samples of scores are not independent.

[21]. Note, however, that shareholders and control councils include insiders and the government.

[22]. Belka, Schaffer, Estrin, Singh (1994 p. 19) examine who takes control of the firm after privatization in Poland and find results similar to ours in that shareholders have an influence over profit allocation, but general directors are largely in control. In contrast to our results, they find that government has vanished from the scene.

Both the past, the old sources of influence, and the future, the new owners, have prominent roles in Table 1. There remains the question of the degree to which the past and the future separately explain this structure of influence. Table 1 simply provides the mean scores of 7x13 dependent variables. The remainder of the paper focuses on the relationship between these dependent variables and history, ownership, and restructuring.

5. The Independent Variables.

Ownership. We distinguish three types of owners -- the state, insiders (and their families), and outsiders. Residual state ownership was determined before the privatization process began and these data are in the public record. Matters are very different for the data on insiders, since the official ownership records held by the stock exchange contain no data on insider-outsider status. Moreover, families of employees joined insider efforts to create an ownership basis for insider control after privatization. Therefore, we must rely on survey information, which reflects the enterprises' knowledge of their ownership base, particularly the proportion of shares owned by insiders and their families. Outsider ownership is calculated as a residual.

There is an additional variable relevant to ownership. Because the voucher-sale of enterprises was sequential, there is large variance in the length of time since enterprises have been private. Given that the effects of ownership are unlikely to be instantaneous, we use length of time privatized to capture the temporal structure of ownership effects.

Restructuring. There was no systematic effort by the government to restructure before privatization. But the replacement of general directors and the splitting up of enterprises did affect internal governance. We thus have two restructuring variables -- the length of tenure of the present general director and a dummy variable indicating whether or not the enterprise is a pre-privatization spin-off of a larger enterprise. These data, together with that on residual state ownership, were provided by the Mongolian Privatization Commission.

History. In the survey, general directors were asked to rate the influence in late 1990 of various decision-making bodies on the 13 decisions listed in Table 1. Thus, we have data equivalent to that summarized in Table 1, but for an earlier period, one that was immediately prior to the beginning of economic reforms. For these 1990 ratings, only five decision-making bodies were relevant, because shareholders and control councils did not then exist. These 1990 data were converted into a numerical scale in a procedure exactly equivalent to that used for the post-privatization data.

Table 2 summarizes the independent variables and introduces the abbreviations that are used in the results tables.

6. Explaining the Structure of Influence.

Table 1 lists the mean values for 7x13 dependent variables and Table 2 lists the independent variables that are potentially related to them. There remains the problem of condensing this morass of information. Again pragmatism is the guiding spirit, examining which independent variables survive after sequentially eliminating variables that do not pass rudimentary significance tests. These tests do not aspire at validation or refutation of any theory, but are simply a guide for judging the strength of relationships.

To illustrate the approach, we describe one case -- the determinants of central government influence. (This is the case that appears first in Table 3, on rows 1-6.) In the first instance, 13 regressions were run, using central government influence on each of the 13 decisions as dependent variables and all those variables listed in Table 2 as independent variables.[23] Then, independent variables were eliminated one-by-one in sequence when they had no explanatory power, viewing the 13 regressions as a whole. As stopping point to this process, we used a simple criterion: an independent variable appears in the reported set of regressions if,

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[23]. Of the nine variables listed in Table 2, only seven are linearly independent, given that ownership and influence represent percentages. Hence, one variable from the ownership set and one variable from the history set were omitted before the process began, by picking the variables that seemed least likely to be related to the dependent variable on their own account.

for the 13 coefficients for this variable in the 13 separate equations, either 3 were significant at the 10% level or two were significant at the 5% level.[24]

Continuing to use the same example to clarify the structure of Table 3, two history variables, three privatization variables, and one restructuring variable survived the sequential elimination process. Then, rows 1-6 of column 1 in Table 3 contain the coefficients of a regression in which the dependent variable is post-privatization central government influence on investment decisions (see variable listed at the head of column 1) and the independent variables are those listed in rows 1-6 of column B.[25] Across the next 12 columns, the factor that varies is the specific enterprise decision that the central government influences, that is the dependent variable of the regressions. The last column lists the corresponding regressions when the dependent variable is the aggregate influence score for central government on all decisions. The remaining rows of the Table present the results of the same process applied to the influence scores of other decision-making bodies.[26]

Before turning to the measures of the importance of the three sets of variables, we first highlight some of the features of the results in Table 3, which are of considerable interest in themselves in understanding the way that the transition proceeds in the enterprise sector. Among the myriad patterns in Table 3, the following seem noteworthy:

(i) Insider ownership, rather than outsider ownership, reduces governmental influence within the enterprise. (See rows 3, 4, 9, and 10 of Table 3, remembering that the three types of ownership add to 100%.) Outsider ownership has the paradoxical effect of contributing to greater governmental influence. At first glance these results might seem to be inconsistent with theories that emphasize the

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24. Two-sided tests.

25. Intercept terms were included in the regressions, but are excluded from the table for lack of space. See below for information on the scale of coefficients.

26. Since the seven dependent variables relating to a particular decision sum to a constant, the seven sets of regressions for the seven decision-making bodies were run together as seemingly unrelated regressions.

link between outsider ownership and withdrawal of the state (Boycko, Shleifer, and Vishny, 1993; Frydman and Rapaczynski. 1993). However, perhaps a more charitable interpretation is that these results pinpoint the fact that those theories place a very great reliance on the assumption of effective institutions. Our empirical result is to be expected given the paucity of the means by which outsiders can exert their ownership power in Mongolia.

(ii) Ownership has no effect on the power of general directors (rows 13-17), their power deriving from historical factors and only reduced by restructuring. Privatization seems no solution to the entrenchment of general directors.

(iii) State ownership does lead to direct governmental influence (rows 3 and 9). Our data are inconsistent with the usual assumption that the state is a passive owner after the fall of the old regime (Aghion, Blanchard, and Burgess, 1994, pp. 1328). But, the estimated relationships do provide an indication of where this assumption might be more appropriate. The state ownership effect is stronger for local than for central government (comparing rows 3 and 9), a representation of the fact that there has been more continuity in local government during Mongolia's reforms.

(iv) The effect of ownership increases over time, but asymmetrically. The results for the time-private variable indicate that new bodies of corporate governance gradually gain power, primarily reducing the historical power of government (rows 5, 6, 30, and 34). However, the power of insiders does not change over time (witness the absence of the time-private variable in rows 13-26).

(v) The coefficients on the time-private variable embody information on the speed of withdrawal of the state. For example, one can predict that aggregate central government influence declines to zero after 50 months and aggregate local government influence reaches zero after 61 months (see column 14, rows 1-12).[27]

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27. This calculation requires background sample information that is not contained in the tables.

(vi) Restructuring promotes the influence of new governance bodies, the control councils, reducing the influence of the general directors and the state (rows 6, 12, 16-17, and 35-6). Where existing relations are broken, after restructuring, new bodies gain influence and old powers lose.[28]

(vii) The control councils have a somewhat paradoxical status. Judging by the signs of the regression coefficients (rows 31-33), the control councils are not the instruments of outsider shareholders, as the architects of the privatization program conceived them, but rather are most powerful when the historical power of workers is high and where workers have a large ownership share. Control councils gain influence from the power of non-management insiders. In this institution-poor environment, the predictions of Phelps at al (1993, p. 17) do not seem to hold: outsider ownership is actually detrimental to the influence of the new bodies of corporate governance.

(viii) Perpetuation of historical influence is prominent (rows 1, 7, 13, 19, and 23). Perpetuation seems strongest for insiders and most of all for general directors. History variables are least prominent in explaining the influence of the new elements of corporate governance (rows 27-36).

7. Measures of the Explanatory Power of History, Ownership, and Restructuring.

The information in Table 3 offers the ability to calculate crude summary information of the importance of the three sets of variables. First, note the percentage of times that each potential independent variable passes the rudimentary criterion for inclusion in the equations and consequently appears in the table. For example, the two restructuring variables appear in eight of fourteen cases, giving the 57% value in the first row of Table 4, which contains the corresponding information for the ownership and history variables.

A simple measure of quantitative importance is the effect that a one standard deviation change in an independent variable produces on the dependent variable. Before producing Table 3, all independent

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[28] Lizal, Singer, and Svejnar (1994, p. 14-15) study the performance of Czechoslovak spin-offs and find poorer performance than in comparable enterprises that were not broken up, results that seem to differ from ours. Of course, this apparent inconsistency might be explained by differences between changes in internal organization and external performance. See the earlier comments in Section 2.

variables were transformed to have standard deviations of one. Hence, one can legitimately compare the numerical values of the different coefficients appearing in Table 3, allowing the aggregation of the numerical information that appears in Table 4. For example, noting the value for the restructuring variables in the middle row of the last column of Table 4, a one standard deviation change in the restructuring variables produces on average a 0.51 change in the dependent percentage influence score. The average size of the ownership effect is somewhat larger, and the effect of history larger yet. The last row of Table 4 contains estimates of the magnitude of the effect of the independent variables on the aggregate influence scores. These confirm that the effect of the history variables is larger than that of the other two sets.

Table 4 offers mixed results with no single variable set dominating. This observation indicates that one should seek more systematic summary measures of the relative explanatory power of the three sets of variables. As there is no unambiguous measure of explanatory power in the presence of intercorrelations, we follow Schmalansee (1985, pp. 346-7) in using the adjusted R-squared ($\overline{R}^2$) from differing formulations of the equations to set plausible bounds on the amount of variance in enterprise influence that can be explained by the three sets of variables.

Let $I_{ij} = f_{ij}(H_{ij}, O_j, R_j)$ denote the typical equation in Table 3, where I_{ij} is the influence of body j on decision i and H_{ij}, O_j, R_j represent the sets of history, ownership, and restructuring variables included in the regression.[29] One measure of the contribution of the history variables would be to obtain the $\overline{R}^2$ from an estimate of the equation $I_{ij} = g_{ij}(H_{ij})$. Another measure follows by subtracting the $\overline{R}^2$ from the equation $I_{ij} = f_{ij}(H_{ij}, O_j, R_j)$ from the $\overline{R}^2$ for the equation $I_{ij} = h_{ij}(O_j, R_j)$. Although each of these measures confounds the effects of the other sets of explanatory variables, it is reasonable to suppose that together they might provide bounds on the independent contribution of history as an explanatory variable.[30]

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29. History variables vary across decisions, hence the double subscripts for H in contrast to the single for O and R.

30. There is no unambiguous definition of the independent contribution of one set of variables in the presence of correlated variables. For further discussion, see Schmalansee (1985), who is able to obtain more precise estimates in the case in which one set of variables comprises solely dummies.

The product of this exercise appears in Table 5. The first row contains the results that correspond to the 13 equations explaining each of the specific enterprise decisions (those in columns 1-13 of Table 3). Since there are 7x13 equations on the specific decisions, each figure in the first row of Table 5 is a mean of 7x13 separate estimates of minimum and maximum contributions of the sets of variables. Because the criterion for inclusion of variables in the equations is very loose, implying the large number of non-significant coefficients in Table 3, the $\overline{R}^2$'s are quite small, as indicated by last entry in the first row of Table 5. However, for the 7 equations in which the dependent variable is the aggregate influence of a decision-making body (those in the last column of Table 3), the estimates are dominated by significant coefficients and the resultant $\overline{R}^2$'s are larger. For these 7 equations, estimates of the explanatory contributions of the three sets of independent variables appear in the bottom row of Table 5.

These two sets of results present a consistent picture of the relative importance of the three sets of variables. The history variables are most important, a rough characterization portraying history as accounting for more than one half of the variance explained. For the regressions on individual decisions, history accounts at a minimum for 38% of variance explained and 55% at a maximum. In the case of the regressions on aggregate scores, the corresponding figures are 55% and 72%. Nevertheless, in view of the fact that the enterprises surveyed had been privatized on average only for seven months at the time of the survey, the contribution of ownership is substantial. The restructuring variables are least important. The composite data in Table 5 hide much detailed information that cannot be presented here for lack of space, information on which variables are most important for which decision-making bodies. These data confirm many of the observation of the previous section. For example, the history variables are relatively more important in explaining the influence of the general director and the department heads, and least important in explaining the influence of the central government. This reflects that fact that the internal structure of the enterprises was untouched by the political and economic revolutions, allowing the historical structure to perpetuate itself. In contrast, the central government underwent the paroxysms of change, which broke historical continuity.

Ownership variables are least important in explaining the influence of the general directors, department heads, and workers. Ownership is most prominent in explaining the influence of local government and the control councils. Ownership is therefore important either where new elements of corporate governance are being instituted or where a government, in Mongolia the local governments, has been little affected by the changes wrought by transition.

8. Concluding Remarks

This paper's results offer observations on the speed of change of enterprise governance, the consequences of privatization, the effects of direct state restructuring, and the persistence of history. Conventional wisdom on these facts is grist for debates on transition policy, for predictions on the progress of transition, and for differing accounts of individual country performance. For example, some early debates focused on whether restructuring should precede privatization (Fischer and Gelb, 1991, pp. 98-9). Similarly, the relative desirability of different sequences of policies depends upon judgments concerning the promptness of ownership effects, especially in relation to the friction of history (Murrell, 1992). In addition, the results also reflect upon current theories concerning the channels by which privatization affects an economy (Phelps, et al 1993, Shleifer 1994), theories that are at the center of an understanding of the reform process. However, we leave these broader implications of our results to the reader, simply remarking that many of the details of the results do bear on these important questions.

. The significance of the paper's results therefore derives from their links to these pivotal, broader issues of reform. This significance is enhanced by the fact that few existing empirical studies bear directly on such issues (Estrin, Gelb, and Singh 1994, p. 3; Belka, Schaffer, Estrin, and Singh, 1994, p.1). The paucity of relevant studies is especially the case for the embryonic legal and market environment that is present in all the reforming socialist countries lying to the East of those on the borders of Western Europe.[31]

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[31] Studies on the mos[illegible] reforming nations are now appearing, with varying results. The case studies of Estrin, Gelb, and Singh (1994) find an associat[illegible]n privatization and long run plans for adjustment; Belka, Schaffer, Estrin, and Singh (1994) find few effects of ownersh[illegible] behavior, except in the area of finance; and Brada and Singh (1994) remark on the

Thus, although the results rest on strong assumptions, and the empirical relationships from which they derive are not strong, their significance of the results is to be justified by the fact that they cover new ground in the study of the effects of reforms in ex-socialist countries, an area in which existing studies are few and often inconclusive. The results show that history, ownership, and state-promoted restructuring all play a role in the evolving structure of corporate governance. History is the dominant determinant. But it is significant that ownership has an effect so soon after privatization. Similarly, even the small results of restructuring are noteworthy, given that the state paid little attention to this aspect of policy.

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commonality of the adjustment process across ownership types.

References

Aghion, Phillipe, Olivier Jean Blanchard, and Robin Burgess, "The Behavior of State Firms in Eastern Europe: Pre-Privatization," *European Economic Review,* 38(1994): 1327-1349.

Marek Belka, Schaffer, Mark, Estrin, Saul, and Inderjit Singh, "Evidence from a Survey of Sate-Owned, Privatized, and Emerging Private Firms," Paper Presented at Workshop on Enterprise Adjustment in Eastern Europe, Transition Economics Division, The World Bank, September, 1994.

Boycko, Maxim, Shleifer, Andrei, and Vishny, Robert W., "Property Rights, Soft Budget Constraints, and Privatization," Harvard University, January 1993.

Brada Josef, and Inderjit Singh, "Transformation and Labor Productivity in Eastern Europe," Paper Presented at Workshop on Enterprise Adjustment in Eastern Europe, Transition Economics Division, The World Bank, September, 1994.

Brom, Karla and Mitchell Orenstein, "The 'Privatized Sector' in the Czech Republic: Government and Bank Control in a Transitional Economy," Institute for East West Studies Working Paper, April 1994.

Carlin, Wendy, John van Reenen, and Toby Wolfe, "Enterprise Restructuring in the Transition: An Analytical Survey of the Case Study Evidence from Central and Eastern Europe," EBRD, Working Paper, No. 14, July 1994.

Estrin, Saul, Alan Gelb, and Inderjit Singh, "Restructuring, Viability, and Privatization: A Comparative Study of Enterprise Adjustment in Transition," Paper Presented at Workshop on Enterprise Adjustment in Eastern Europe, Transition Economics Division, The World Bank, September, 1994.

Estrin, Saul and Lina Takla, "Enterprise Adjustment in Transition: Does History Matter?", Paper Presented at Workshop on Enterprise Adjustment in Eastern Europe, Transition Economics Division, The World Bank, September, 1994.

Fischer, Stanley and Gelb, Alan, "The Process of Socialist Economic Transformation", *Journal of Economic Perspectives,* 5(4), Fall 1991:91-106.

Frydman, R. and A. Rapaczynski, "Insiders and the state: overview of responses to agency problems in East European privatizations", *Economics of Transition*, Volume I(1), 39-59, 1993.

Levitas, Anthony, "The Trials and Tribulations of Property Reform in Poland: From State-Led to Firm-Led Privatization, 1989-1991," forthcoming in Vedat Milor ed. *Changing Political Economies: Privatization in Post-Communist and Reforming Communist States*, 1993.

Lizal, L., Singer, M., and Svejnar J., "Manager Interests, Breakups and Performance of State Enterprises in Transition", paper presented at the Workshop on Enterprise Adjustment in Eastern Europe, September, 1994, The World Bank Washington, DC.

Murrell, Peter, "Evolution in Economics and in the Economic Reform of the Centrally Planned Economies." In Christopher C. Clague and Gordon Rausser eds. The Emergence of Market Economies in Eastern Europe, Blackwell: Cambridge, Mass., 1992.

Nelson, Richard R. and Sidney G. Winter, An Evolutionary Theory of Economic Change, Cambridge, Mass.: Harvard University Press, 1982.

Phelps, Edmund S., Frydman, Roman, Rapaczynski, Andrzej, and Shleifer, Andrei, "Needed Mechanisms of Corporate Governance and Finance in Eastern Europe," EBRD Working Paper No. 1, March 1993.

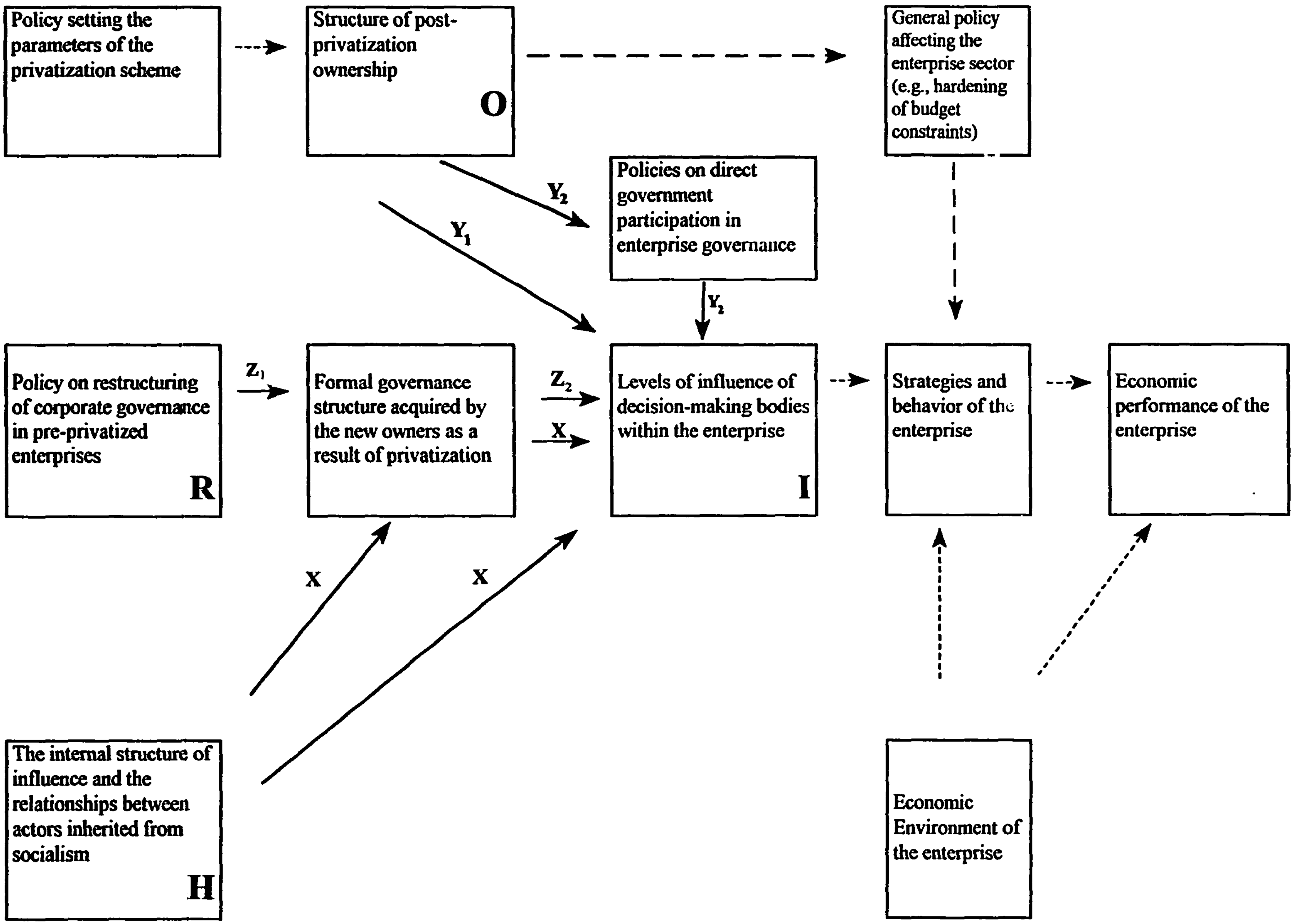
Schmalansee, Richard "Do Markets Differ Much?", *American Economic Review*, 75(3), June 1985:341-51.

Shleifer, Andrei. "Establishing Property Rights," Paper prepared for the World Bank's *Annual Bank Conference on Development Economics*. Washington, D.C., April 1994.

Shleifer, Andrei, and Vasiliev, Dmitry, "Management Ownership and the Russian Privatization," Paper presented at Conference on Corporate Governance in Central Europe and Russia, The World Bank, December 1994.

United Nations, Economic Commission for Europe, *Economic Survey of Europe in 1993-1994.* New York, 1994.

Figure 1: Variables and Relationships in Enterprise Sector Reforms



Note: Variables are indicated by boxes, relationships by arrows. Relationships with solid lines are studied in the paper, those with dashed lines are not.

TABLE 1: INFLUENCE OF VARIOUS BODIES ON CORPORATE DECISION-MAKING AFTER PRIVATIZATION

Mean Scores Across 106 Mongolian Enterprises

	Decision: / Bodies:	Share Holders	Control Council	General Directors	Dept. Heads	Worker Groups	Central Gov.	Local Gov.
1	INVESTMENT DECISIONS	12.5	10.5	28.3	19.6	9.4	10.8	8.9
2	BORROWING/LENDING MONEY	10.0	9.9	30.4	19.4	9.0	11.2	10.1
3	DISTRIBUTION OF PROFITS	19.3	13.5	22.8	17.0	11.2	7.9	8.2
4	DECISION TO EXPORT	9.4	9.4	28.9	20.7	9.0	12.5	10.0
5	DECISION TO IMPORT	8.6	9.2	29.4	22.3	8.9	12.0	9.6
6	LEVEL OF OUTPUT	11.2	9.8	27.7	22.2	10.7	8.9	9.4
7	PRODUCT RANGE	10.7	10.1	27.8	22.6	11.1	9.1	8.7
8	SETTING PRODUCT PRICES	8.3	9.6	27.2	23.9	10.1	10.3	10.5
9	DISMISSING EMPLOYEES	8.1	9.4	27.7	22.2	17.1	7.7	7.7
10	SETTING WAGE LEVELS	11.2	10.1	26.5	20.4	15.9	8.3	7.5
11	SETTING MANAGERS' COMPENSATION	14.4	11.3	26.8	19.1	12.3	8.1	7.9
12	NEGOTIATING INPUT PRICES	8.5	9.5	28.8	24.8	9.5	9.5	9.4
13	SETTING MAJOR GOALS	14.7	10.5	24.5	20.2	11.8	8.9	9.3
14	AVERAGE OF ALL DECISIONS	11.3	10.4	27.5	21.1	11.3	9.5	8.8

HIGH Decisions on which a body's influence is especially large (mean score is significantly bigger than median of column entries at 1% level).

LOW Decisions on which a body's influence is especially small (mean score is significantly smaller than median of column entries at 1% level).

Table 2: The Explanatory Variables

Abbreviation	Definition of Variable
	Ownership Variables
State %	Percentage state ownership
Outsider %	Percentage outsider ownership
Employee %	Percentage employee and family Ownership
Time private	Length of time since enterprise's privatization, in months
	Restructuring Variables
Director tenure	Length of time that general director has held job, in years
Spin-off	Dummy variable -- 1 if spin-off; 0 otherwise
	History Variables
Central govt. '90	Central government share of influence on enterprise decisions in 1990, in percent
Local govt. '90	Local government share of influence on enterprise decisions in 1990, in percent
Director '90	General director's share of influence on enterprise decisions in 1990, in percent
Dept. heads '90	Department heads' share of influence on enterprise decisions in 1990, in percent
Workers '90	Workers' groups' share of influence on enterprise decisions in 1990, in percent

Note: Before using these variables in the regressions, they were each rescaled to have a standard deviation of one. See text.

TABLE 3: THE E C E EA A B O GO A SES

The table lists the coefficients of regressions that explain the degree of post-privatization influence of various groups on 13 types of enterprise decisions, using independent variables describing ownership, pre-privatization restructuring of enterprises, and the historical structure of influence.

A Dependent Variables	B Independent Variables	1 Investment Decisions	2 Borrowing Decisions	3 Distribution of Profits	4 Exporting Decisions	5 Importing Decisions	6 Output Levels	7 Product Range	8 Output Prices	9 Firing Workers	10 Setting Wages	11 Managers' Pay	12 Input Prices	13 Major Goals	14 Average of All Decisions	
Central Government post-privatization influence on variable at head of column	Central '90	0.45	0.04	-0.30	0.82	1.04	0.02	0.38	0.71	-0.02	-0.17	0.12	0.71	0.52	0.29	1
	Director '90	0.54	-0.55	-0.63	-0.65	-0.86	-0.20	-0.06	-0.35	-0.10	-0.33	0.18	-0.15	-0.72	-0.48	2
	State %	1.16	0.63	1.69	0.12	0.63	0.35	0.51	1.20	0.20	0.12	0.17	0.80	0.53	0.49	3
	Outsider %	-0.03	0.52	1.00	0.47	0.59	-0.01	-0.24	0.04	0.31	0.05	0.37	0.10	-0.21	0.26	4
	Time private	-1.00	-1.72	-0.66	-1.49	-0.86	-0.14	-0.22	-0.31	0.00	-0.14	-0.21	0.03	-0.42	-0.55	5
	Spin-off	-0.48	-0.87	-0.76	0.49	0.06	-0.76	-0.31	-0.63	-0.26	-0.21	-0.17	-0.65	-0.16	-0.31	6
Local Government post-privatization influence on variable at head of column	Local govt. '90	0.40	0.04	-0.21	0.66	0.94	0.00	0.30	0.62	-0.03	-0.11	0.07	0.49	0.45	0.25	7
	Director '90	0.22	-0.70	-0.98	0.22	-0.46	-0.62	-0.35	0.09	-0.18	-0.11	0.16	-0.56	-0.46	-0.27	8
	State %	0.98	1.26	1.35	1.60	1.33	1.73	0.71	1.89	0.16	0.43	0.44	1.10	1.91	1.09	9
	Outsider %	0.45	0.60	0.58	0.15	0.35	0.81	0.75	1.24	0.32	0.32	0.48	0.77	0.88	0.34	10
	Time private	-0.70	-0.68	0.06	-0.38	-0.80	-0.69	-0.46	-0.90	0.01	-0.02	-0.12	-0.40	-0.90	-0.41	11
	Spin-off	-0.27	-0.38	-0.49	-0.44	-0.89	-0.25	0.04	0.78	-0.29	-0.06	-0.08	0.34	0.51	-0.38	12
General Director's post-privatization influence on variable at head of column	Director '90	1.17	0.88	0.11	0.65	1.19	1.34	1.39	0.61	0.68	0.90	0.00	1.73	1.19	1.43	13
	Dept. heads '90	-1.21	-0.20	0.02	-0.18	-0.52	-0.77	0.17	-0.66	-0.59	-1.25	0.02	-1.28	-0.17	-1.15	14
	Workers '90	0.05	0.01	-1.45	-1.13	-1.28	-1.81	-1.76	-1.35	0.04	-0.31	-0.05	-1.02	-0.53	-1.08	15
	Director tenure	-0.15	-0.01	-0.43	-0.81	-0.28	-0.21	-0.17	0.16	0.04	-0.96	-1.05	-0.43	-0.89	-0.47	16
	Spin-off	-0.79	-0.16	-0.53	-0.71	-0.20	-0.30	-0.71	-0.53	-0.47	-1.59	-1.23	-0.04	-1.24	-0.41	17
Department Heads' post-privatization influence on variable at head of column	Director '90	0.04	-0.62	-0.25	0.61	-0.54	-0.87	0.29	-0.43	-0.86	-1.11	0.19	-1.25	-0.33	-0.83	18
	Dept. heads '90	0.74	1.47	1.42	1.11	2.57	1.60	0.50	1.38	0.85	1.60	-0.31	2.41	1.68	2.08	19
	Workers '90	0.48	-0.13	-1.22	-0.82	-0.78	-0.91	-0.45	-1.18	-0.50	0.21	-0.08	-1.52	-0.32	-1.09	20
	State %	0.05	-1.03	-0.41	-0.19	-0.40	-0.99	-0.95	-1.12	-0.60	0.85	-0.52	-1.16	-0.37	-0.43	21
	Employee %	0.38	0.03	0.32	0.07	0.18	0.92	0.16	-0.19	0.44	0.00	1.08	0.30	-0.02	0.30	22
Worker Groups' post-privatization influence on variable at head of column	Workers '90	-0.16	0.09	0.91	1.13	0.94	1.50	1.00	0.68	1.17	0.79	0.37	0.47	0.57	0.65	23
	State %	-0.91	-0.37	-0.72	-0.45	-0.67	-1.05	-0.24	-0.96	-0.18	-0.43	-0.97	-0.58	-0.54	-0.58	24
	Employee %	-0.38	-0.03	-0.29	-0.06	-0.19	-0.91	-0.13	0.18	-0.44	-0.00	-1.08	-0.31	0.04	-0.29	25
	Spin-off	0.04	0.40	0.64	0.10	-0.06	0.38	-0.12	-0.18	-0.09	0.45	0.66	-0.26	-0.08	0.28	26
Shareholders' post-privatization influence on variable at head of column	Director '90	-0.94	-0.21	-0.03	-0.67	0.04	-0.48	-1.45	0.30	0.15	0.11	-0.11	-0.03	-0.55	-0.44	27
	Workers '90	0.07	0.05	1.63	0.68	0.89	0.22	0.04	0.71	-0.21	-0.13	-1.20	0.32	-0.02	0.39	28
	State %	-0.16	0.78	-0.57	-0.10	0.06	0.92	0.46	0.15	0.22	0.02	0.98	-0.02	-0.29	0.081	29
	Time private	0.51	0.80	-0.20	0.90	0.33	-0.01	0.58	0.07	-0.23	-0.29	-0.18	-0.17	0.48	0.158	30
Control Council's post-privatization influence on variable at at head of column	Workers '90	-0.21	0.00	-0.04	0.39	0.59	1.02	1.36	1.35	-0.53	-0.67	1.01	1.91	0.55	1.22	31
	State %	-1.11	-1.26	-1.31	-0.99	-0.96	-0.95	-0.47	-1.17	0.21	-0.78	-0.10	-0.14	-1.23	-0.64	32
	Outsider %	-0.41	-1.11	-1.54	-0.62	-0.95	-0.79	-0.47	-1.29	-0.62	-0.36	-0.85	-0.87	-0.65	-0.58	33
	Time private	1.19	1.60	0.79	0.98	1.34	0.83	0.10	1.14	0.21	0.44	0.51	0.54	0.84	0.80	34
	Director tenure	0.15	0.02	0.43	0.82	0.29	0.22	0.17	-0.17	-0.05	0.95	1.05	0.43	0.82	0.47	35
	Spin-off	1.50	1.01	1.14	0.56	1.10	0.94	1.10	0.55	1.12	1.41	0.61	0.61	0.96	0.81	36

NOTES: 1. 0.00 Significant at the 10% level $\boxed{0.00}$ Significant at the 5% level $\boxed{0.00}$ Significant at the 1% level

2. Intercept terms were included in the regressions, but their values are not reported here.

ne eas an ne istory, Ow), and Rest ring Variables in Ex lainin n uence

	History Variables	Ownership Variables	Restructuring Variables
Percentage of times that variables from each of the three sets survive the exclusion criterion and thus appear in Table 3.	50	71	57
Mean absolute values of the coefficients in the regressions appearing in columns 1-13 of Table 3.	0.64	0.57	0.51
Mean absolute values of the coefficients in the regressions appearing in column 14 of Table 3.	0.83	0.47	0.45

Table 5: Estimates of the Relative Explanatory Power of History, Ownership, and Restructuring

	HISTORY		OWNERSHIP		RESTRUCTURING		ALL VARIABLES
	MIN	MAX	MIN	MAX	MIN	MAX	MIN = MAX
Means of the 7x13 estimates of variance explained by the three sets of variables in the relationships presented in columns 1-13 of Table 3, expressed as a percent of total variance of the dependent variable.	3.0	4.4	2.2	3.5	0.0	1.2	8.0
Means of the 7 estimates of variance explained by the three sets of variables in the relationships presented in column 14 of Table 3, expressed as a percent of total variance of the dependent variable.	8.8	11.3	4.0	6.3	0.0	1.1	15.8