

## **CONCENTRATED OWNERSHIP AND MANAGEMENT TURNOVER: THE CASE OF RUSSIA\***

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### **3. Main Determinants of Top Executive Turnover: Results of Econometric Analysis**

The descriptive observations, which we discussed in the first part of our paper, can be regarded as hypotheses requiring verification with more rigorous methods of econometric analysis. A comprehensive list of these hypotheses is given in Table 13.

**Table 13**  
**Main hypotheses concerning impact of ownership characteristics and the firm's performance on top executive turnover**

Expected effects of ownership characteristics and the firm's performance on top executive turnover:	
- the firm's performance	-
- intensity of redistribution of shareholdings	+
- inside (=managerial) ownership	-
- outside ownership	+
- ownership of the state	+/-
- ownership concentration	+
Expected effects of ownership characteristics and the firm's performance on probability of appointments of incumbents as top executives::	
- the firm's performance	+
- intensity of redistribution of shareholdings	-
- inside (=managerial) ownership	+
- outside ownership	-
-ownership of the state	+/-
- ownership concentration	-

Economic performance of enterprises should be reasonably expected to be negatively related to probability of replacement of top executives (the poorer is the performance, the more reasons for replacement), and

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\* Continued from: REB, Vol. XIV, 1, 2005, P. 10-21.

positively related to the prospect for an incumbent to become a new director (the better is the performance, the fewer reasons to change the management team having responsibility for this success). Shift of control over an enterprise from one group of shareholders to another is usually preceded with dramatic changes in its ownership structure. Since new owners are used to bring a new team of managers with them, this implies that high intensity of inter-group redistribution of shares should stir up the rotation of top managers, while preventing the incumbents from coming to power. As we have already mentioned, dominance of insider ownership contributes to "entrenchment" of top managers and makes their dismissal and replacement by outsiders less probable. Admittedly, a reverse effect could be expected from dominance of outsider ownership. The effect of state ownership is more ambiguous - it may have either a positive or a negative sign, depending on concrete circumstances. Additionally, it is reasonable to suggest that management turnover depends not only on the identity of dominant shareholders, but also on the level of ownership concentration. For instance, dispersion of ownership among a host of small investors should favor "entrenchment" of incumbent managers as well as "inheritance" of power by representatives of the same management teams. On the contrary, the presence of large blockholders increases chances for swift change of incumbent managers and for their replacement by newcomers from the outside.

We believed it was important to find out whether these effects could be identified in the Russian context. Unfortunately, not all of them could be verified econometrically because of informational constraints. For instance, we were not in a position to incorporate ownership concentration variables since this would imply a drastic decline in the number of observations. For the same reason, we had to ignore the intensity of inter-group redistribution of shareholdings in regressions for *the origin of top managers*.

Our research strategy was as follows. Using the REB survey data for 1995-2003 we constructed an unbalanced panel and then performed a series of probit-regressions on this basis. Our dependent variables were,

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first, incidence of CEO or BD chairmen replacements (a binary variable equal 1 if the new appointment took place, and 0 otherwise) and, second, incidence of "inside" appointment (a binary variable equal 1 if the newly appointed CEO or BD chairman were incumbents, and 0 otherwise).

The following factors were included in our regressions as independent variables: 1) gross intensity of inter-group redistribution of shareholdings over two-year intervals (let us remember that specialized REB surveys on the ownership and corporate governance issues are biannual); 2) cumulative stakes held by major groups of owners (we distinguished 6 such groups - managers, workers, outside individuals, other industrial enterprises, financial outsiders (banks, investment funds etc) and the state (the reference category was "outside individuals"); 3) financial outcome ("profit-making" enterprises versus "loss-making" enterprises, a binary variable).

To deal with a possibility that a variety of factors can jointly affect performance, ownership and management turnover variables and thus induce spurious correlation between them we introduced a number of control variables. These are enterprise size (measured by total number of employees); 6 industry dummies (the reference category was "other industries"); dummies for the survey dates (1997 was the reference date).

As follows from Tables 14 and 15, on the whole, the results of probit-regressions for management turnover and succession patterns concur with most of our hypotheses. Let us start with the results of formal tests for probability of replacement of CEOs and chairmen of the boards of directors (Table 14). They offer several interesting conclusions [3]. First, they suggest that occurrence of new appointments positively depends on intensity of redistribution of shares. Put it in other way, changes in the management teams tend to occur simultaneously with or after substantial alterations in ownership structures. However, the magnitude of this effect is not great: even if a half of all the shares are transferred from one group of owners to another, the risk of replacement for incumbent managers becomes higher only by 10% (see estimates of the

corresponding marginal effects in the column 2). Second, an important determinant of management turnover is ownership structure: while concentration of large blocks of shares in the hands of insiders prevents renewal of top management, concentration of large blocks in the hands of financial outsiders (banks, investment funds etc.) fosters it. For instance, probability of dismissal of a CEO is 20-30% lower in the firms that are 100% owned by managers or employees ( $-0,002*100\%=-20\%$ , or  $-0,003*100\%=-30\%$ ), and 20% higher in the firms that are 100% owned by financial outsiders ( $0,002*100\%=20\%$ ), than in the enterprises that are fully controlled by outside individuals. (The regression coefficient for the state ownership is statistically insignificant). It is worth noting that the above mentioned effects are stronger for CEOs than for chairmen of boards of directors. Third, executive turnover appears to be sensitive to enterprise performance: risk of replacement is about 10% (-8,5%) higher in loss-making firms than in profitable ones for CEOs and 25% higher for chairmen of the boards of directors. Fourth, intensity of rotation of top managers seems to be insensitive to enterprise size (the corresponding regression coefficients are statistically insignificant). Among all our control variables, only the dates when the surveys were conducted are significant. This suggests that as soon as the Russian economy entered the recovery period, the rate of renewal of managerial corps has become somewhat slower.

Results for the "origin" of top managers (see Table 15) appear to be more ambiguous (let us remind that they refer only to the companies where change of CEOs or chairmen of board of directors actually took place). Nevertheless, they are also mostly consistent with our hypotheses. Thus, they show that inside owners dominated companies prefer to appoint incumbents while outside owners dominated companies prefer to appoint "strangers". For instance, 1 %-increase in the block of shares held by insiders tends to increase the probability of coming to power of an incumbent by 0.1-1 %. At the same time, the firms that are controlled by financial outsiders are practically undistinguishable from the firms controlled by outside individuals in this respect.

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**Table 14**  
**Estimated Probit-Regressions Controlling for Probability of Change of Top Managers**

	Change of director-general (yes/no)		Change of chairman of board of directors (yes/no)	
	Regression coefficients	Marginal effects	Regression coefficients	Marginal effects
<i>Independent variables:</i>				
Gross intensity of inter-group redistribution of stock	<b>0.008</b> (1.75)+	<b>0.001</b>	0,001 (0,30)	0,001
Share of stock owned by managers	<b>-0.013</b> (2.05)*	-0.002	<b>-0,007</b> (1,25)	<b>-0,002</b>
Share of stock owned by employees	-0.015 (2.07)*	-0.003	-0,016 (2,41)**	-0,004
Share of stock owned by financial outsiders	0.012 (1.66) +	0.002	<b>-0,004</b> (0,47)	<b>-0,001</b>
Share of stock owned by other enterprises	<b>-0.012</b> (1.58)	<b>-0.002</b>	<b>-0,003</b> (0,43)	<b>-0,001</b>
Share of stock owned by the state	-0.009 (0.98)	-0.001	-0,005 (0,52)	-0,001
Belonging to the group of profitable firms	<b>-0.51</b>	<b>-0.085</b>	-0,95	-0,25
	<b>(1.83)+</b>		<b>(3,34)**</b>	
<i>Control variables:</i>				
Enterprise size	-0.13 (1.01)	-0.022	0,12 (0,88)	0,032
1999	-0.39 (0.82)	-0.054	0,05 (0,05)	0,012
2001	<b>-0.97</b> (2.23)*	<b>-0.156</b>	-0,73 (0,94)	-0,190
2003	<b>-0.79</b> (1.77)*	<b>-0.117</b>	-0,87 (1,09)	-0,215
Industry	Y	Y	Y	Y
Constant	1.10		-0.79	
	(1.10)		(0.63)	
Number of observations	181		151	
Chi squared	<b>30.2*</b>		<b>32.0*</b>	
Pseudo R <sup>2</sup>	0.20		0.20	

Notes: Absolute values of z-statistics are given in brackets.

+ - Significant at the level of 0.1; \* - significant at the level of 0.05;

\*\* - significant at the level of 0.01.

**Table 15**  
**Estimated Probit-Regressions Controlling for Identity of New**  
**Heads of Firms**

	New director-general is incumbent (yes/no)		New chairman of board of directors is Incumbent (yes/no)	
	Regression coefficients	Marginal effects	Regression coefficients	Marginal effects
<i>Independent variables:</i>				
Share of stock owned by managers	0,010 (0,79)	0,004	0,022 (1,91)*	0,001
Share of stock owned by employees	0,041 (2,13)*	0,010	0,047 (2,83)**	0,003
Share of stock owned by financial outsiders	0,009 (0,63)	0,003	-0,003 (0,33)	-0,000
Share of stock owned by other enterprises	0,020 (1,83)+	0,008	-0,022 (1,83)+	-0,001
Share of stock owned by the state	0,053 (1,90)+	0,021	-0,334 (2,40)**	-0,019
Belonging to the group of profitable firms	2,15	0,686	-0,09	-0,005
	(2,77)**		(0,18)	
<i>Control variables:</i>				
Enterprise size	0,73 (2,50)**	0,299	0,11 (0,42)	0,006
1999	-2,95 (2,46)**	-0,742	2,11 (2,41)**	0,289
2001	-0,32 (0,41)	-0,127	1,07 (1,18)	0,091
2003	-1,12 (1,62)	-0,424	1,49 (1,57)	0,160
Industry	Y	Y	Y	Y
Constant	-5,70 (2,63)**	-3,65 (1,66)*		
Number of observations	40		66	
Chi squared	22,28*		33,3**	
Pseudo R2	0,42		0,51	

*Notes: Absolute values of z-statistics are given in brackets.*

*+ - Significant at the level of 0.1; \* - significant at the level of 0.05;*

*\*\* - significant at the level of 0.01.*

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Concentration of shares in the hands of other enterprises or the state provides less clear-cut effects. It follows from the results obtained, that these types of ownership, on the one hand, tend to favor incumbents to take the posts of CEOs, and on the other hand, facilitate "strangers" to ascend to the posts of chairmen of the boards of directors. Next, the choice between insiders and outsiders is affected by performance: for underperformed enterprises, appointment of incumbent is less probable. For instance, belonging to a group of profitable firms tend to make the probability that a representative of the same management team will become a new CEO about 70% higher.

Another interesting finding is that larger companies more often recruit top managers from inside while smaller, from outside. Large enterprises appear to be better protected from arrival of "invaders" from the outside. However, this effect might be produced by differences in size of management teams as such: naturally, it is easier to find appropriate nominees in large enterprises employing larger management teams. Finally, regression coefficients for dummy variables related to the dates of surveys suggest that over time, incumbents were appointed as CEOs of the Russian industrial enterprises less frequently, while as chairmen of the boards of directors, more frequently.

## 4. Conclusions

Our analysis has identified three most important determinants of management turnover and succession patterns: stability/instability of enterprises' ownership structures; distribution of shareholdings between insiders and outsiders; the firm's performance. We have obtained positive results for almost all hypotheses, which could be tested with the empirical data at our disposal. We have found that:

- The situation in the Russian industry is characterized by a paradoxical combination of high management turnover with substantial percentage of "old" directors inherited from the previous economic system;
- Other things being equal, inside ownership exerts a negative impact on management turnover while outside ownership, a positive one;

- Occurrence of top executive replacement is positively related to alterations in ownership structures, i.e. changes in the management team are usually preceded by a burst of inter-group redistribution of shares;
- Replacement of top executives is more likely to occur in poorly performing companies;
- On the average, "outside" appointments are more likely in distressed companies and in companies dominated by outsiders, while "inside" appointments are more likely in well performed companies and in companies dominated by insiders.

Most of these effects could be qualified as "standard" because they perfectly fit to theoretical expectations. However, this doesn't make the results that we have obtained less important. The main conclusion following from our study is that in spite of numerous built-in defects, the Russian system of corporate governance is doing what it has to do, helping to select the more efficient managers and to improve the quality of their work [4]. However, the speed of these changes is, as before, being restrained by widespread insider ownership going back to peculiar features of the Russian privatization scheme that was implemented at the early stage of market reforms.

### **Notes**

[3] To simplify the interpretation of quantitative effects that we have obtained, we assume (non-realistically) that functional relationships in our regressions are linear. It should be taken into account that this assumption is made only for the sake of illustration and is certainly incorrect in the case probit-regressions.

[4] Similar results were obtained by A. Muravyev. Muravyev A. (2003) Renewal of Managerial Corps in Privatized Russian Enterprises. - "The Russian Journal of Management", vol.1, #1.