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**MANAGERIAL TURNOVER
AND FIRM PERFORMANCE
IN RUSSIA**

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Цель данной работы заключалось в том, чтобы определить, как смена высшего руководства компаний влияет на последующую эффективность. Обнаружено что после смены рыночная доходность на акции выше для наиболее ликвидных компаний, за исключением тех случаев, когда бывший генеральный директор сохранил свое влияние на компанию. Мы не нашли подтверждений тому что увольнения директоров после плохой работы и повышения после хорошей предоставляют хорошие стимулы новым директорам работать лучше, тем самым увеличивая доходность на акции. В работе использовалась выборка, состоящая из 110 российских компаний, чьи акции регулярно торговались в Российской Торговой Системе с 1997 года.

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This paper aims at estimating the impact of top management turnover on the subsequent corporate performance. We found that market return is higher after turnover for the most liquid companies, except the cases when former CEO keeps his influence on the company. We found no evidence that dismissals after bad performance and promotions after good performance provide good incentives for new managers and therefore increase market returns. The sample we use consists of 110 Russian companies which shares were traded at Russian Trading System since 1997.

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1. INTRODUCTION

Managerial turnover is an important and interesting topic for empirical research because it can provide insight to the quality of corporate governance mechanisms. It is widely believed that governance structure in Russian companies is far from being perfect due to extensive managerial entrenchment, opportunistic behavior of majority shareholders and low level of law enforcement.

Market return on company's shares can be a good measure of firm performance because it reflects growth in shareholder value. It is worth mentioning that no one used returns as a measure of firm performance studying relationship between turnover and firm performance in Russia.

Our research is aimed at determining whether top management turnover affects the subsequent enterprise performance and how this relationship is influenced by different factors such as ownership structure and industry belongings. The main hypothesis that we are going to test is that introducing new human capital improves firm performance. Another issue of the research is connected to managerial incentives. It is interesting to reveal whether promotions after good performance and dismissals after poor performance work as disciplinary tool for new managers.

This paper is organized as follows. A survey of relevant literature is given in Section 2; Section 3 contains data description; results are presented in Section 4; Section 5 is a conclusion.

2. LITERATURE REVIEW

Corporate governance is associated with “principal-agent” or “agency” problem. This problem arises when there is separation between ownership and control, i.e. the person who owns the firm (principal) is not the same as the person who manages or controls it (agent). Berle and Means (1932) made a pioneering work devoted to this problem. A concise and global survey of corporate governance can be found in Shleifer and Vishny (1997).

Most empirical researches based on western data find significant negative relationship between CEO dismissal probability and prior firm performance. For example, this result is supported by papers of Khorana (1996), and Morck et al. (1989). However, this relationship is very weak. Surprising fact is presented by Jensen and Murphy (1990): expected wealth losses resulting from the dismissal for poor performance of a 53 year old CEO constitute 8.6 cent for every \$1000 of shareholders losses.

In transition economies the results of empirical researches are quite controversial. Warzynsky (2000) used the financial difficulties of the firm as a proxy for the past performance and found no relationship between managerial turnover and prior firm performance.

M. Goltsman (2000) found positive relationship between managerial turnover and prior firm performance. This result seems surprising and it might be explained by harder struggle for ownership and thus higher turnover rate among owners and managers in the case of better performance.

A considerable amount of papers have studied the effect of managerial turnover on firm performance. Most of them can be attributed to event studies. In such papers authors use financial market data in order to measure the impact of a specific event on the value of the firm. Changes in top management team can be example of such event. Event study methods are reviewed and summarized by C. MacKinlay (1997). The characteristic feature of event study is that a measure of the event's economic impact can be constructed using security prices observed over relatively short period of time.

Johnson et al. (1985) showed that sudden executive's deaths may lead to an increase in the share prices of the company the executive previously managed. They show this in the case when the founder run the firm, being able to capture a larger share of the contractual rent in his compensation, making his replacement valuable to shareholders.

Weisbach (1988) report that when managerial turnover takes place excess returns are always positive and larger when the CEO was not of retirement age. The effects are more positive in outside controlled boards of directors.

Denis and Denis (1995) show that retirements are followed by operating income growth and significant improvement in terms of stock return. In addition, important restructuring activity accompanies retirements.

Warner et al. (1988) find no evidence that turnover affects the stock return performance of the firm. Therefore even in Western countries firms not always benefit from managerial turnover.

As for transition countries, several studies indicated that managerial changes improve firm performance. It was noticed by Groves et al. (1995) that for the large majority of Chinese firms an improvement in performance was observed in firms that

hired a new manager, while no improvement was detected when the manager was reappointed. Claessens and Djankov (1999) found that managerial turnover was associated with higher profitability and productivity in the Czech Republic.

Warzynski (2000) analyzed the causes of managerial change and the impact of different reforms on firm performance, using survey data from 300 Ukrainian firms. One of the main findings is that managerial change and privatization positively affect profitability.

Finally, Barberis et al. (1996) studied empirically Russian shops and found that hiring a new manager increased the likelihood of restructuring while the provision of better incentives to incumbent managers did not improve restructuring prospects in the firm. It should be noticed that I am not aware of any research aimed directly on estimating the relationship between top management turnover and the subsequent enterprise performance on Russian data.

Significant number of works indicates that both managerial turnover and firm performance depend on ownership structure of the firm. For example, Kuznetsov and Muravyov (2000) focused on the impact of ownership structure on performance of Russian non-financial privatized companies that constitute the group of blue chips of the country's stock market. In particular it was found that foreign ownership brings an improvement in firm performance.

Perevalov et al. (2000) analyzed the impact of privatization upon the performance of medium, large and extra-large industrial enterprises, using panel data from 198 industrial enterprises in the Sverdlovsk Oblast during 1992-1996. The study shows that not only full privatization but also majority state ownership is preferable to

a state minority stakeholding, possibly because of the absence of a monitoring shareholder in the latter case.

Substantial attention is paid to the choice of measures of firm performance. Different authors choose different measures such as labor productivity, profitability, sales growth, Tobin's Q, securities prices etc. Sometimes we can find different measures of firm performance in one paper. Several different measures of firm performance are used not only in order to understand different relationships but also to ensure that results are robust to misspecification.

3. THE DATA

Constructing measures of firm performance on the basis of share prices is the characteristic feature of our research. We use information about share prices to calculate market returns – measures of growth in shareholder value. Increasing the company value, which is equal to the product of share numbers and share price should be the main goal of management team, as it is seen by company's owners. Characteristics of firm performance such as labor productivity, profitability and sales growth may not reflect the goal properly.

Such a choice of measures of firm performance dictates the choice of data. We use data on Russian companies that have been traded in the Russian Trading System (RTS) since 1997. RTS is the main stock trading site in Russia. At the beginning of 2001 shares of 248 Russian companies were traded in RTS. We also analyzed other trading sites and found that they have small trading volume and number of traded shares or information is not free of charge. Comparative analysis of different trading sites is presented in the table 1. We use RTS as the only source of information about share prices of Russian companies.

Table 1. Comparative analysis of different trading sites

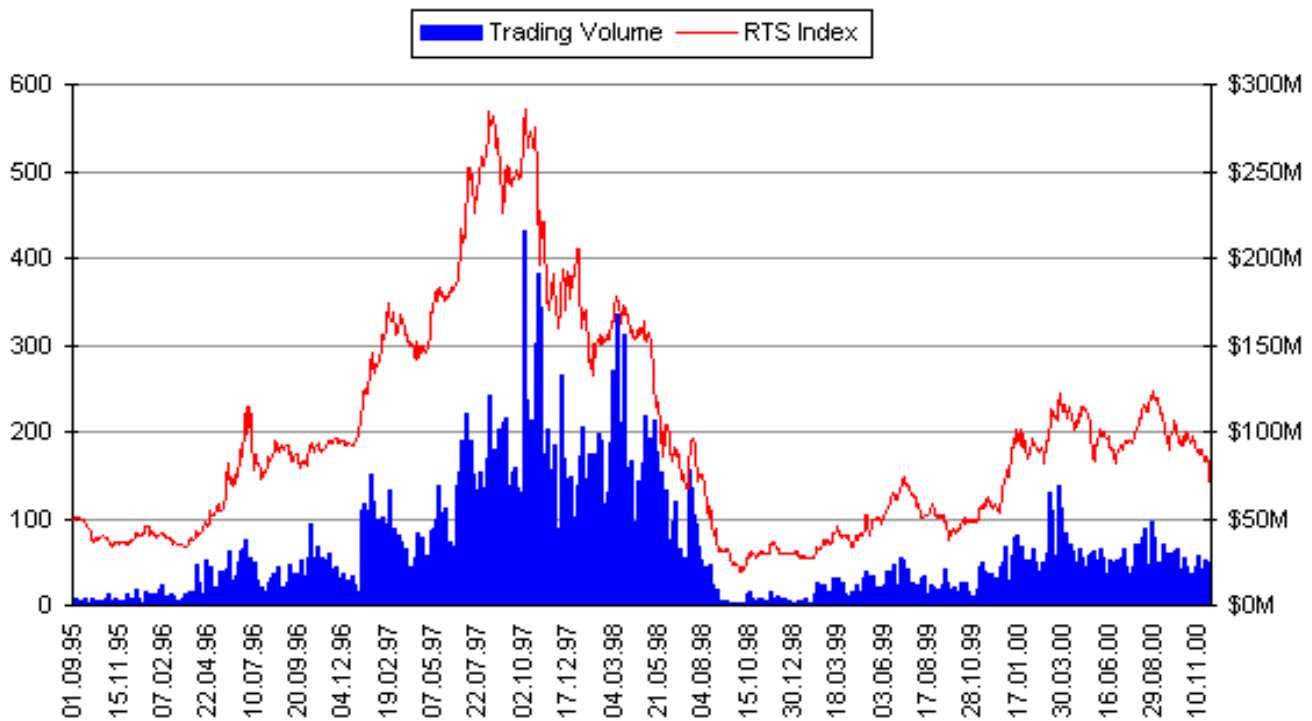
Trading ground	Trading volume	Number of shares	Information is public?
RTS	mln. \$ 18.992	248	Yes
MICEX	mln. \$ 87.749	About 30	No
NNCSE	mln. \$ 10	About 30	Yes

Table 1. Comparative analysis of different trading sites (Continued)

Trading ground	Trading volume	Number of shares	Information is public?
MSE	mln. \$ 2	<15	Yes
St.Petersburg SE	< mln \$1	<5	Yes
ESE	< mln. \$ 1	< 5	Yes

Trading volume is given for the December 2, 2000

The dynamics of daily trading volume in RTS is presented on the graph.



From this graph we can see that before 1997 the trading volume was small and unstable. During that period the stock market in Russia was virtually absent. Since the

beginning of 1997 till the crisis in August '98 shares were traded regularly and in big amounts. Thus, share prices can be an adequate measure of the firm performance for that period. The financial crisis in Russia in August '98 let to crash in RTS. For a long time trading volume stayed negligible. It was only in the beginning of year 2000 when active trading resumed.

From this analysis we may conclude that one can use share prices as an indicator of firm performance in Russia only for the periods from the beginning of 1997 to the middle of the 1998 and from the beginning of year 2000.

One should say that the information on share prices provided by RTS is convenient for storage and processing. This information is available on the RTS web site (www.rts.ru). The information can be sorted by date or by name of firm and then can be easily aggregated. To avoid mistakes connected to variation of stock prices we use monthly average stock prices. We normalize all share prices by RTS index in order to distinguish changes in stock prices connected to firm performance from those connected to overall situation on the securities market.

RTS provides information about all share issues. We normalize share prices by number of shares in the cases of splits and big emissions. When the ratio of new shares to existent shares is less than 1.5 we use dummy variable, since it is very difficult to distinguish issues connected to financing of real new projects from asset stripping.

One should use information about dividends on common shares to construct measures of firm performance more accurately. We look at the ratio of dividends to share prices and to changes of share prices for the biggest companies using information from the application to the journal Expert – Expert-200.

Table 2. Payments of dividends on common shares in 2000.

		>0	>1%	>10%
Dividend / Share Price	D_{2000}/P_{2000}	70	31	8
Dividend / Change of share price	$D_{2000}/ P_{2000}-P_{1999}$	70	51	14

Information is given for 119 companies

As we can see from the table 2 both ratios are small for the most companies. In 70 out of 119 cases companies paid dividends for year 1999, and only in 14 cases ratios of dividends to the absolute value of changes of share prices were bigger than 10%. The situation is similar to other years.

Collecting information about dividends for our sample since 1997 is a rather difficult task. Since dividends to share prices ratios are small we do not use information about dividends and we consider that it will not lead to big bias in results.

In this research we look at the turnover of a chief executive officer (CEO) in 1998 or at the end of 1997. Then we analyze post-turnover market return to understand how top managerial turnover affects subsequent firm performance. We take firms which shares have been traded in RTS since 1997.

One should mention that it is quite difficult to find out the presence of CEO turnover for that period because of the lack of appropriate data. In our work we use AK&M database as the main source of information about managerial turnovers. AK&M database contains news about Russian companies. All companies which shares are traded in RTS are presented in AK&M to some extent. This source has several drawbacks: Firstly, the information in AK&M is not sorted by events but by

firms and by time. Therefore, it is difficult to find necessary information in this database. Secondly, most information that can be found in AK&M is irrelevant to our research. Finally, this information is far from being complete.

In spite of all these difficulties the information about managerial turnovers was extracted from AK&M including dates of meetings of shareholders in the 1997 and 1998, and names of CEO at these dates. RTS provides information about current directors.

Many shares of firms that are traded in RTS at the end of year 2000 have not been traded in RTS in 1997 and 1998. On the other hand we often cannot find the name of CEO of the firm in '97 or in '98 from AK&M. Only in 170 cases out of 248 we can exactly answer the question about managerial turnover in the year 1998.

The sample we use in this work is even smaller. Many firms which shares were traded frequently and in big amounts in RTS during 1997 became illiquid after the crisis in the august '98 and remained illiquid till the end of year 2000. It is impossible to construct market returns for these firms and they have been excluded from our analysis. Finally we have 110 companies which shares were traded in RTS since 1997 till 2000 frequently enough to construct different market returns and for these firms we know exactly if there was managerial turnover in the year 1998 or not. Turnovers of CEO took place in 24 cases.

We can make the following observation: changes of CEOs usually take place during meetings of shareholders. Meetings are held mainly during the period from March to June. It allows to look at the share prices on the day of meetings of shareholders in '97 and '98 and then use share prices at these moments as a proxy for

firm performance because shares were traded frequently and in sufficient amounts at that time.

To get information about managerial turnovers since 1999 we use another source of information – securities.ru. We found the presence of 14 turnovers for that period. In 8 cases turnovers took place in companies that already had turnovers in 1998.

For each turnover in 1998 we look what happened with former CEO. All cases are divided into three categories: dismissals (down), promotions (up) and the rest (same).

Table 3. Where did former CEO go?¹

	Total	In the same company	In the same corporation	Other field	Stop working
Down	13	5	-	3	5
Same	6	3	3	-	-
Up	5	1	3	1	-

24 turnovers in 1998

As we can see from the table 3, in more than half cases turnovers were dismissals. However, two other categories are also important and they have to be analyzed. Another important observation is that in all cases that were described as ‘same’ former CEO kept his connection with the company and could influence it.

There is a broad strand of literature indicating that ownership structure can influence firm performance as well as probability of managerial turnover. One can

¹ For more details see table 1 of the Appendix

expect that presence of big outside owner will lead to higher labor productivity or profitability.

However, in the conditions of perfect capital markets market returns of all firms must be equal (we do not take into account risk factor). It follows from the absence of arbitrage condition. Thus adding variables that control ownership structure can help to understand the level of development of financial market in Russia. The idea of ownership – turnover relationship is even more straightforward. The more shares management team has the lower probability of managerial turnover. As a result of privatization share of insiders is rather large in Russian companies. Also, even if share of management is small, they can strongly influence enterprise control by exercising voting control over employees' shares.

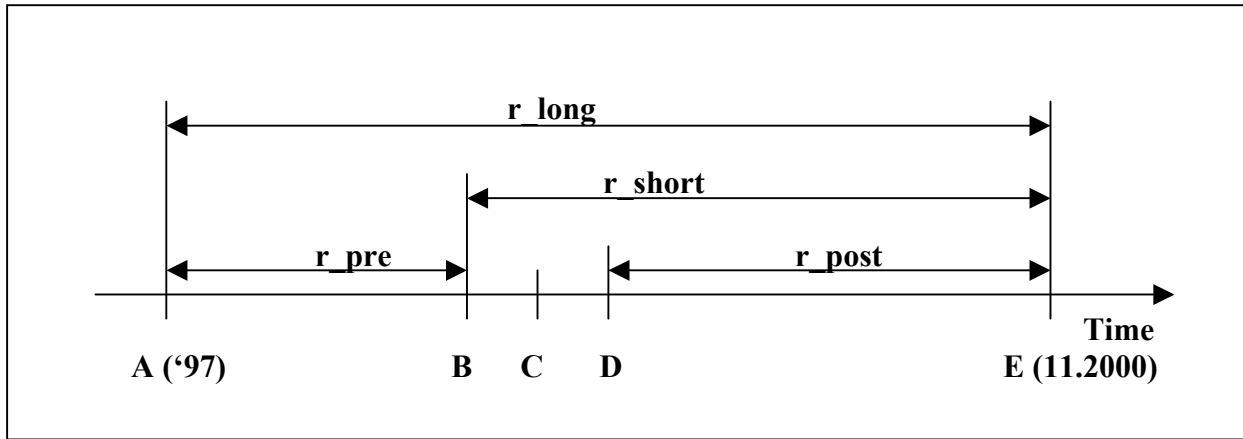
Information about ownership structure was extracted from the companies' quarterly financial accounts, that are available at the official site of Federal Commission on Securities Market (FCSM). This source contains information about owners of not less than 5% of firm's shares. We constructed variables for state ownership, ownership of foreign outsiders, ownership of Russian banks and for block holders ownership. It is likely that shares that do not belong to block holders belong to insiders. We do not use information about shares owned by managers, because this stake is very small for big companies and our sample consists of the biggest Russian companies.

From the same source we take information about company's sales in 1997. We use logarithm of sales in 1997 as a proxy for company's size.

We constructed several measures of firm performance, using market return at different periods. At the picture 1 point C corresponds to the date of managerial

turnover for the companies which had it before the crisis in 1998 and to meeting of shareholders in 1998 for the companies that had no turnover. In most cases this date varies between March and June of 1998. Points B and D correspond to one month before and one month after meeting / turnover moment respectively. Point A corresponds to one year before meeting / turnover moment. For the companies which had managerial turnover in the second half of 1998 point A corresponds to the May of 1997, point B corresponds to the May of 1998 and point D corresponds to the June of 1998. For all companies point E corresponds to the end of year 2000. When there was no information about share prices at some point of time we looked at the closest moment when this information was available. Therefore, in all cases points A, B, C and D lie before the financial crisis in the August '98.

Picture 1. Constructing measures of firm performance



r_post is the post meeting / turnover RTS - adjusted market return. We can use the following formula:

$$\exp(r_{post} \times \Delta) = \frac{P(E) / RTS(E)}{P(D) / RTS(D)}$$

so,

$$r_post = \ln \left(\frac{P(E)/RTS(E)}{P(D)/RTS(D)} \right) / \Delta$$

where $P(.)$ and $RTS(.)$ correspond to share price and RTS index at the particular moment respectively and Δ denotes length of the time interval.

Other measures of firm performance were constructed by the same way. We use **r_short** and **r_long** as alternative independent variables to check robustness of results and to deal with possible foresight of securities market. If there is information that CEO will be replaced and market believes that this will result in improving firm performance then share prices will go up even before turnover, but after turnover share prices can grow with the rate that equals average market return. Therefore, **r_post** can be independent of turnover even if turnover improves firm performance. However, market can hardly predict fact of turnover one year before. Thus, if turnover improves firm performance **r_long** must be higher for companies where turnovers take place even in the case of foresight of securities market.

r_pre is the prior meeting / turnover RTS - adjusted market return. This independent variable is a proxy for firm performance in 1997. This variable can be correlated with probability of turnover. In the case of imperfect capital market one can expect that **r_post** and **r_pre** are negatively correlated, because of sticky share prices. If share prices were high at the point B they will stay high in the point D too. This will result in high prior meeting / turnover return and low post meeting / turnover return.

In the conditions of crisis liquidity can influence market return. One can expect that big companies which shares were traded frequently before crisis will survive after

crisis and that they will have higher market return than small companies with illiquid shares. We use two different measures of liquidity.

L_n_days is the simplest measure of liquidity. It is equal to a logarithm of total number of days when company's shares were traded in RTS since 1997 till the end of 2000 and reflects frequency of trades.

L_mkt_sh is a logarithm of total trading volume in dollars for a given stock in RTS since 1997 till the end of 2000 and reflects volume of trade. Companies with the highest value of this variable had the biggest share in the stock market almost every trading day during this period.

Size is a measure of company's size. It is equal to a logarithm of companies sales in 1997.

Emission is a binary variable equal to 1 if small emissions took place at the period since 1997 till the end of 2000. We control for big emissions and splits simply by normalizing share prices².

To control different influence of the crisis on different industries we use several dummy variables, describing industry belongings. With the help of 5-digit OKONKh we divide all companies into 6 categories:

i_metal	extraction and refining of metals, tubes producing
i_oilgas	extraction and refining of oil and gas
i_machin	machine building
i_telcom	telecommunications
i_energo	energy producing and delivery

² Company owners can issue additional shares primarily with one of two purposes: attract money to finance new projects or limit rights of minor shareholders. We can not distinguish honest emissions from dilutions.

Most of the firms in our sample belongs to one of these 5 categories. For the rest of the sample we do not use any industry dummy. We can expect that companies from first 3 categories gain value as the result of the crisis. Companies from first two categories produce tradable goods, that have become more expensive in terms of non-tradable goods after crisis. Machine building could have gained because its output became competitive in domestic market due to import decrease. On the other hand companies from the last two categories can lose because world oil prices increased and costs went up after crisis.

We use a number of variables for turnover which are the following:

t_turn - binary variable, equal to 1 if the top corporate officer was replaced in 1998 or at the end of 1997. All cases of turnover are divided into 3 following categories:

t_down - binary variable equal to 1 if the top corporate officer was dismissed. In such cases former CEO can get retired, stop working or even get in jail. She also can continue working in the same firm or in some other company but in a lower position.

t_up - binary variable equal to 1 if the top corporate officer was promoted. She can become president of the same company, CEO in the bigger company or start working in government.

t_same - binary variable equal to 1 if turnover took place in 1998 and it cannot be classified as dismissal or promotion. In these cases CEO can become vice-director in bigger company or member of board of directors in the same or bigger company. In all cases that were classified as 'same' former CEO kept relations with the company.

t_often - binary variable, equal to 1 if the top corporate officer was replaced in 1998 or at the end of 1997 and was replaced once again in 1999 or in 2000.

We use following characteristics of ownership structure:

sh_for - percentage of equity belonging to foreign block holders

sh_rb - percentage of equity belonging to Russian banks

sh_st - percentage of equity belonging to the state

sh_max - percentage of equity belonging to the biggest block holder

sh_all - percentage of equity belonging to all block holders

sh_num - number of block holders

Descriptive statistics are presented in the table 2 of the Appendix.

Partial correlations among variables are presented in the table 3 of the Appendix.

4. RESULTS

Our first goal was to determine how managerial turnover affects subsequent firm performance. Turnovers lead to introducing of new human capital in a company. This could be beneficial to the firm because owners could choose new manager with particular skills, which are most necessary to the company. However, it is not always possible because top management labor market is underdeveloped in Russia. We use dummy variables for turnovers to test the hypothesis that introducing of new human capital improves firm performance.

Top managerial turnover can be a strong disciplinary measure for companies' directors. New manager could work better if he knew that the previous top manager was dismissed after poor performance or promoted after good performance. We use interaction terms between turnovers and prior turnover performance to test the hypothesis that promotions after good performance and dismissals after poor performance provide good incentives to CEOs and therefore improve firm performance.

We use the sample of 110 companies. The most general form of our model is the following:

$$\text{Firm performance} = F(\text{Turnover, prior performance, controls})$$

The results of estimates are presented in tables 4-13 of the Appendix. This part of the Appendix is organized as follows. In tables 4-7 hypothesis connected to human capital is tested on the whole sample of 110 firms. Tables from 8 to 10 are devoted to the same problem on the sample of the most liquid firms. Regressions presented in the

tables from 11 to 13 test hypothesis connected to managerial incentives on different samples. In most specifications we use OLS regressions with robust standard errors³.

The first conclusion that we can make from these results is that various kinds of turnovers affect subsequent firm performance differently. The coefficient on dismissals is positive for all but one specifications and significant in some specifications (Tables 6-8, 11). Meanwhile, the coefficient on *same* is negative for all but one specifications and significant in most specifications (Tables 5-11). The coefficient on promotions lies between coefficients on dismissals and *same*.

Nevertheless, we cannot say whether dismissals improve performance and turnovers without dismissals or promotions deteriorate performance on the whole sample of 110 firms. In the most cases coefficient on dismissals is insignificant on the whole sample, and in all cases significance of this coefficient is less than 5% (Tables 4-7). Significance of coefficient on *same* is higher; in one specification this coefficient is significant at 1% level (Table 6). However, this result is not robust to using different techniques of econometric estimating. When we use robust regression estimates⁴ the coefficient become insignificant (Table 7).

The coefficients on interaction terms between turnovers and prior meeting / turnover performance have different signs for different kinds of turnovers: they are positive for dismissals and promotions and negative for the 'same' (Tables 4-7). The positive sign of coefficient on interaction term between dismissals and past performance is a surprising fact. It means that in companies where managers were fired after good performance post turnover market return is higher than in companies

³ t-statistics are constructed using White's standard errors

⁴ Robust regression estimates are obtained with command *rreg* in econometric package Stata v.6.0.

where managers were fired after poor performance. We will come back to this fact when we will discuss the role of managerial incentives.

The prior meeting / turnover performance itself has a significant effect on the subsequent performance. The coefficient on prior meeting / turnover performance is always negative and significant at least at 5% level (Tables 4-12). This result can be attributed to imperfect financial market in Russia for the reasons discussed above. Nevertheless, this coefficient is quite small – it is always less than 30%. It means that if company's share prices grew 30% faster than RTS-index before the meeting of shareholders in 1998, then after that they grew only 10% slower than RTS-index.

The coefficient on ongoing turnover is negative in most specifications and significant in some of them. It allows to affirm that frequent turnovers are not desirable. If CEO had no guarantee that he would keep his position for next year, he would not have any incentives to work hard, and what is even worse he could think of stealing company's money while he is in charge. However, this result can be the consequence of reverse causality: in firms that perform poorly, the probability of managerial turnover can be higher than in good performing firms.

The coefficients on the industry dummies reflect influence of the crisis on firm performance. As one can expect companies that produce tradable goods and machine building companies gained value as the result of the crisis in comparison with other firms. We combined different industries together in order to reduce number of independent variables. The hypothesis that the crisis influenced similarly machine building industry and oil and gas extraction and refining industries as well as telecommunications and energy producing and delivery industries can not be rejected (Table 4).

In the Table 4 we can see basic regression which contains turnover dummies, interaction terms between turnover and performance, and other significant variables such as industry dummies and liquidity measure. Post meeting / turnover return is chosen as a basic measure of post meeting / turnover firm performance.

In the next table we add different control variables to the basic regression. As we can see liquidity measures does matter for firm performance. The more liquid company's shares the higher post meeting / turnover return. One possible explanation is that high liquidity creates additional demand on the shares. If shares are traded frequently then it is relatively easy to buy or sell it. On the other hand nobody will buy small package of shares if there is no guarantee that she can sell it in future. Another explanation is the influence of the crisis. It is more probable that large companies with liquid shares will survive after the crisis than the small ones. The simplest measure of liquidity that reflects frequency of trades is better in explaining variation of post meeting / turnover return than another measure that reflects market share of the company.

The coefficients on the other control variables are insignificant. The coefficient on small emissions is negative on the whole sample. Honest emissions aimed on financing of real projects would not reduce market return but could increase it. Thus, we can say that on the whole sample small emissions are likely to be dilutions rather than honest emissions. However, the effect of small emissions on post meeting / turnover is quite small. Point estimates indicates that small emissions lead to 6% decrease in return which is 5 times smaller than standard deviation of post meeting / turnover return.

The ownership variables have no significant effect on market return. Neither coefficients on ownership of some particular group of shareholders nor coefficients on percentage of equity belonging to all block holders or to the biggest block holder are significant. Number of block holders that has rather big coefficient of correlation with meeting / turnover return (Table 3) becomes insignificant when industry dummies are included in the regressions.

In the table 6 we test hypothesis that dismissals are similar to other kinds of turnovers, and that dismissals together with promotions are similar to other turnovers, using different measures of firm performance on the whole sample. The first hypothesis is rejected only in one specification at 10% level, the second hypothesis is rejected in one specification at 5% level and in the other specification at 1% level. However, when we use robust regression estimates the significance of the results is much lower (Table 7). Using this technique we cannot reject the hypothesis that all three kinds of turnover are similar to each other at 5% significant level in all specifications.

There may exist several reasons for different dependence of firm performance on the explanatory variables for the most liquid firms and for the whole sample. Firstly, market return can serve as a measure of firm performance only for liquid companies. Secondly, taking into account narrow market of top management labor force in Russia, there is no guarantee that a new manager will be better than an old one. It is more probable that a large company will hire a new professional manager than a small one. Thirdly, we observe high significance of liquidity variables in all specifications. For these reasons we try to estimate impact of managerial turnover on subsequent firm performance on different sub samples of the most liquid firms.

We tried different specifications by looking at different samples and choosing the most liquid firms according to one of two liquidity measures. The coefficients on promotions and dismissals are positive and significant in some specifications, while coefficient on *same* is negative and significant in some specifications (Table 8). Then we test hypotheses that promotions and dismissals do not improve subsequent firm performance and that other turnovers are similar to promotions and dismissals using different measures of firm performance and different samples. The first hypothesis is rejected at 1% significance level in 2 specifications, the second hypothesis is rejected at 5% significance level in 5 specifications (Table 9).

We can see that these results are robust to including different control variables (Table 10). Neither liquidity measures nor size nor small emissions dummy nor ownership structure variables are significant on the sample of 40 most regularly traded companies. At the same time the coefficient on turnover stays significantly positive and the coefficient on *same* stays significantly negative in most specifications.

It is interesting that the coefficient for small emission that is negative on the whole sample becomes positive though insignificant on the sample of the most liquid firms. This result can be indirect evidence, although weak one, that corporate governance mechanisms work better at the largest Russian companies.

One can expect that promotions after good performance and dismissals after poor performance could provide incentives to new managers to work better and thus improve firm performance. However, as we have already seen coefficient on cross term between dismissals and prior turnover performance is insignificant and coefficient on cross term between promotions and prior turnover performance is significant and positive on the whole sample (Table 4). To test the hypothesis that

promotions after good performance and dismissals after poor performance do not provide good incentives to new managers we introduced a new variable CG_good. This variable is equal to sum of the interaction term between promotions and prior turnover performance and of the interaction term between dismissals and prior turnover performance (Table 11). The hypothesis can not be rejected neither on the whole sample nor on the sample of most liquid firms. Moreover the coefficient is always negative and close to 10% significance level on the sample of the most liquid firms.

Another way of testing hypothesis about managerial incentives is using dummy variables for good corporate governance policy instead of interaction terms. We rank all firms by prior meeting / turnover market return and divide them into two equal categories: firms with upper than median prior meeting / turnover market return, and firms with lower than median prior meeting / turnover market return. Promotions in firms from the first category and dismissals in firms from the second category are classified as examples of good corporate governance policy and described by binary variable t_good. All other promotions and dismissals are classified as examples of poor corporate governance policy and described by binary variable t_bad. We use several specifications to understand how these variables influence firm performance using different samples and different measures of performance (Table 12). Although the coefficient on good corporate governance policy is positive in all specifications it is insignificant in most specifications and the coefficient on poor corporate governance policy is significant and positive (!) on the sample of the most liquid firms.

The absence of turnover after good performance may be treated as another example of good corporate governance policy. We construct new variable CG_good1

describing good corporate governance policy by adding these cases to promotions after good performance and dismissals after poor performance (Table 13). As we can see the coefficient on this variable is always negative: on the whole sample, on the sample of the most liquid firms and on the sample of firms where there was no turnover.

Thus, we have found no evidence that managerial incentives connected to turnovers work in Russia. One of possible explanations is that promotions and dismissals are weakly connected to firm performance. In many cases manager is dismissed not for the poor performance but as a result of change of ownership. Managers themselves are highly entrenched in Russia and it is very difficult to company owners to dismiss them.

5. CONCLUSION

The aim of this paper was to determine how top managerial turnovers affect subsequent corporate performance. We regress market returns on common shares on variables describing different kinds of turnover, prior turnover market return, industry dummies, liquidity and ownership structure. We found some evidence that firm performance is higher after turnovers, except the cases when former CEO keeps his influence on the company. We have found no evidence that promotions and dismissals work as disciplinary device for new managers.

The main conclusion of this paper is moderately optimistic. Our research indicates that the widespread point of view that corporate governance mechanisms are far from being perfect in Russia, managers are highly entrenched and that owners have goals different from increase of company is exaggerated at least in the biggest companies. However, area where corporate governance mechanisms work as well as financial market in Russia is thin, limited to 40 companies.

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7. APPENDIX

Table 1. Where did former CEO go?

Company's name	Name of former CEO	Date of turnover	Turnover	Where did former CEO go?	New position of former CEO
Ангарская НК	Константинов Н.	11/98	Down	Same company	Первый зам ген.директора
Единая энергетическая система, РАО	Бревнов Б.	5/98	Down	Other field	Бизнес
Электросила	Чернышов В.	12/97	Up	Same corporation	Директор более крупного завода
Ижорские заводы	Васильев В.	04/98	Same	Same corporation	зам ген. Директора более крупной структуры
Красноярскэнерго	Иванников В.	9/97	Same	Same corporation	Первый зам ген. Директора более крупной структуры
Красноярская ГЭС	Колмогоров В.	2/98	Up	Same corporation	Ген. директор более крупной структуры
Кузбассэнерго	Глазков А.	09/98	Down	Stop working	Отстранен
Ленинградский металлический завод	Шевченко В.	12/98	Same	Same corporation	Первый зам ген. Директора более крупной структуры
Ленсвязь	Григорьев Ю.	6/98	Down	Stop working	Ушел на пенсию
ЛОМО	Клебанов И.	1/98	Up	Other field	правительство С.Петербурга/потом России
Ленэнерго	Казаров С.	11/97	Down	Stop working	Ушел на пенсию
Нижнетагильский металлургический комбинат	Комратов Ю.С.	9/98	Down	Other field	Бизнес
Сибнефть-Ноябрьскнефтегаз	Тайк Ф.	3/98	Down	Stop working	Отстранен
Пермские моторы	Исаченко В.А.	9/98	Same	Same company	Председатель совета директоров
Первоуральский новотрубный завод	Берсенев А.А.	10/98	Down	Same company	Главный инженер
РУСИА Петролеум	Платонов Л.	05/98	Down	Same company	Остался в компании
Ростсельмаш	Тринев В.	03/98	Down	Stop working	Уголовное дело
СИБНЕФТЬ	Городилов В.	07/98	Same	Same company	Первый вице президент
Сахалинморнефтегаз (Роснефть)	Богдачников С.	10/98	Up	Same corporation	Ген. директор более крупной структуры
Северо-Западное речное пароходство	Зубарев Е.	06/98	Up	Same company	Президент
Таганрогский металлургический завод	Шанилов В.	11/98	Down	Other field	Бизнес
Тюменьавиатранс	Илларионов В.	08/98	Down	Same company	Председатель набл. Совета
Гомскнефть ВНК	Филимонов Л.	09/98	Same	Same company	Председатель совета директоров
Тверьэнерго	Ламакин Г.	12/97	Down	Same company	Заместитель ген.директора

Table 2. Descriptive statistics (110 firms)

Variable	Mean	Std. Dev.	Min	Max
r_post	-0.209	0.372	-1.489	1.027
r_short	-0.228	0.336	-1.363	0.579
r_long	-0.179	0.311	-1.177	0.532
r_pre	-0.048	0.794	-2.716	3.399
t_turn	0.218	0.415	0	1
t_down	0.118	0.324	0	1
t_same	0.055	0.228	0	1
t_up	0.045	0.209	0	1
t_often	0.073	0.261	0	1
emiss	0.209	0.409	0	1
l_n_days	4.920	1.097	2.485	6.975
l_mark_s	16.607	2.081	12.550	23.042
size	13.855	1.625	7.440	17.400
i_metall	0.091	0.289	0	1
i_oilgas	0.136	0.345	0	1
i_machin	0.127	0.335	0	1
i_telcom	0.336	0.475	0	1
i_energo	0.191	0.395	0	1
sh_rb	2.470	7.581	0	38.590
sh_for	13.449	15.398	0	73.408
sh_st	4.919	11.841	0	57.660
sh_all	56.881	18.060	0	97.560
sh_max	35.069	14.633	0	77.540
sh_num	3	1.585	0	7

Table 3. Partial correlations.

	r_post		r_short		r_long		r_pre		t_turn		t_down		t_same		t_up		t_often		emiss	
r_post	1.000																			
r_short	0.958*	1.000																		
r_long	0.735*	0.772*	1.000																	
r_pre	-0.070	-0.066	0.558*	1.000																
t_turn	0.050	0.004	-0.009	0.040	1.000															
t_down	0.088	0.040	0.071	0.100	0.693*	1.000														
t_same	-0.002	-0.037	-0.150	-0.155	0.455*	-0.088	1.000													
t_up	-0.034	-0.015	0.036	0.092	0.413*	-0.080	-0.052	1.000												
t_often	-0.020	-0.055	-0.171	-0.126	0.530*	0.331*	0.549*	-0.061	1.000											
emiss	0.026	-0.001	0.093	0.131	0.053	0.020	0.073	-0.005	0.028	1.000										
l_n_days	0.203*	0.225*	0.318*	0.250*	-0.002	-0.044	0.044	0.017	0.027	0.175										
l_mark_s	0.141	0.178	0.280*	0.249*	0.014	-0.005	0.059	-0.029	0.025	0.184										
size	0.116	0.117	0.164	0.118	-0.066	-0.089	0.104	-0.105	0.106	0.045										
i_metall	0.234*	0.238*	0.451*	0.379*	0.063	0.178	-0.076	-0.069	0.033	0.149										
i_oilgas	0.265*	0.255*	0.107	-0.146	0.111	0.019	0.138	0.041	0.093	0.056										
i_machin	0.073	0.079	0.160	0.127	0.195*	-0.055	0.269*	0.179	0.103	0.072										
i_telcom	-0.090	-0.056	-0.191*	-0.227*	-0.330*	-0.201*	-0.171	-0.155	-0.199*	-0.224*										
i_energo	-0.207*	-0.287*	-0.162	0.097	0.079	0.109	-0.015	0.005	0.042	0.092										
sh_rb	-0.038	-0.028	-0.017	0.039	0.102	0.066	-0.079	0.185	-0.020	-0.012										
sh_for	0.047	0.103	0.046	-0.006	0.079	-0.044	0.134	0.077	0.094	-0.007										
sh_st	0.005	0.050	0.081	0.067	0.019	0.058	-0.052	0.003	-0.055	0.017										
sh_all	0.002	0.009	0.078	0.108	0.129	0.085	0.175	-0.066	0.129	0.100										
sh_max	-0.092	-0.125	-0.055	0.045	-0.026	0.024	0.036	-0.128	-0.010	-0.078										
sh_num	0.140	0.168	0.198*	0.127	0.112	0.036	0.102	0.055	0.067	0.156										

* уровень значимости 5%

	l_n_days		l_mark_s		size		i_metall		i_oilgas		i_machin		i_telcom		i_energo		sh_rb		sh_for	
l_n_days	1.000																			
l_mark_s	0.926*	1.000																		
size	0.285*	0.553*	1.000																	
i_metall	-0.024	0.013	-0.006	1.000																
i_oilgas	0.094	0.243*	0.290*	-0.126	1.000															
i_machin	-0.027	-0.060	-0.121	-0.121	-0.152	1.000														
i_telcom	-0.219*	-0.287*	-0.350*	-0.225*	-0.283*	-0.272*	1.000													
i_energo	0.257*	0.249*	0.370*	-0.154	-0.193*	-0.186	-0.346*	1.000												
sh_rb	-0.093	-0.056	-0.007	-0.044	0.114	0.247*	-0.109	-0.112	1.000											
sh_for	-0.013	0.050	-0.047	0.145	0.2257*	-0.044	-0.006	-0.279*	0.103	1.000										
sh_st	0.275*	0.333*	0.089	-0.105	-0.002	-0.016	-0.168	0.071	-0.137	-0.065										
sh_all	0.020	0.091	0.157	0.033	0.309*	-0.135	0.018	-0.023	0.205*	0.482*										
sh_max	0.144	0.146	0.351*	-0.312*	0.144	-0.306*	0.164	0.374*	-0.081	-0.211*										
sh_num	-0.062	-0.017	-0.205*	0.261*	0.101	0.207*	-0.085	-0.337*	0.240*	0.608*										

Table 4. Post meeting / turnover return as a function of turnover, prior performance liquidity and industry dummies.

Dependent variable		r_post	
t_down	0.123 [1.07]		0.094 [0.86]
t_up	-0.073 [0.60]		-0.101 [0.82]
t_same	-0.209 [1.59]		-0.229* [1.98]
t_dn_rpr	0.218** [2.01]		0.213** [2.10]
t_up_rpr	0.16 [1.08]		0.185 [1.31]
t_sm_rpr	-0.181 [1.01]		-0.186 [1.24]
r_pre	-0.179** [2.29]		-0.187** [2.51]
t_often	-0.177 [1.33]		-0.188 [1.48]
i_metall	0.648*** [3.16]		0.658*** [3.26]
i_oilgas	0.388** [2.06]	i_oilgas&mach	0.396** [2.42]
i_machin	0.398** [2.43]		
i_telcom	0.169 [1.09]	i_telcom&energo	0.113 [0.79]
i_energo	0.022 [0.16]		
l_n_days	0.114*** [2.85]		0.102*** [3.17]
Constant	-1.004*** [3.76]		-0.935*** [4.08]
Observations	110		110
R-squared	0.34		0.32

i_oilgas = i_machin

i_telcom = i_energo

F(2, 95) = 1.41

Prob > F = 0.2496

Robust t-statistics in brackets

* significant at 10%;

** significant at 5%;

*** significant at 1%

Notes:

t_dn_rpr=t_down*r_pre

t_up_rpr=t_up*r_pre

t_sm_rpr=t_same*r_pre

i_oilgas&mach=i_oilgas+i_machin

i_telcom&energo=i_telcom+i_energo

Table 5. Post meeting / turnover return as a function of turnover, prior performance, liquidity, industry dummies and other control variables.

Control var.	l_n_days	l_mrk_sh	emission	size	sh_for sh_rb sh_st	sh_max	sh_all	sh_num
t_down	0.094 [0.86]	0.081 [0.72]	0.094 [0.84]	0.087 [0.79]	0.104 [0.86]	0.092 [0.82]	0.099 [0.90]	0.093 [0.83]
t_up	-0.101 [0.82]	-0.093 [0.69]	-0.099 [0.84]	-0.111 [0.90]	-0.088 [0.77]	-0.098 [0.79]	-0.104 [0.85]	-0.103 [0.83]
t_same	-0.229* [1.98]	-0.212* [1.87]	-0.216** [1.99]	-0.235** [1.99]	-0.252** [2.17]	-0.233* [1.89]	-0.227* [1.96]	-0.225* [1.92]
t_dn_rpr	0.213** [2.10]	0.175* [1.70]	0.216** [2.14]	0.215** [2.07]	0.189 [1.51]	0.211** [2.03]	0.210** [2.10]	0.219** [2.22]
t_up_rpr	0.185 [1.31]	0.189 [1.31]	0.172 [1.18]	0.185 [1.29]	0.257* [1.68]	0.185 [1.29]	0.179 [1.33]	0.19 [1.34]
t_sm_rpr	-0.186 [1.24]	-0.176 [1.20]	-0.169 [1.12]	-0.189 [1.24]	-0.194 [1.30]	-0.189 [1.26]	-0.201 [1.30]	-0.165 [1.09]
r_pre	-0.187** [2.51]	-0.161** [2.10]	-0.186** [2.51]	-0.187** [2.49]	-0.187** [2.47]	-0.188** [2.56]	-0.184** [2.52]	-0.190*** [2.64]
t_often	-0.188 [1.48]	-0.168 [1.41]	-0.188 [1.51]	-0.179 [1.33]	-0.189 [1.38]	-0.188 [1.47]	-0.189 [1.50]	-0.183 [1.39]
i_metall	0.658*** [3.26]	0.614*** [2.93]	0.673*** [3.25]	0.663*** [3.27]	0.659*** [2.94]	0.662*** [3.23]	0.662*** [3.28]	0.649*** [3.07]
i_oilgas&mach	0.396** [2.42]	0.374** [2.15]	0.403** [2.43]	0.403** [2.41]	0.417** [2.47]	0.393** [2.47]	0.404** [2.53]	0.391** [2.41]
i_telcom&energo	0.113 [0.79]	0.107 [0.72]	0.113 [0.80]	0.116 [0.80]	0.106 [0.65]	0.105 [0.74]	0.12 [0.84]	0.117 [0.81]
l_n_days	0.102*** [3.17]		0.105*** [3.15]	0.110** [2.54]	0.095*** [3.15]	0.101*** [3.00]	0.101*** [3.21]	0.103*** [3.23]
control_		0.029** [2.44]	-0.059 [0.64]	-0.01 [0.39]	-0.001 [0.32] -0.006 [0.77] 0 [0.15]	0 [0.17]	-0.001 [0.34]	0.009 [0.40]
Constant	-0.935*** [4.08]	-0.910*** [3.54]	-0.944*** [4.11]	-0.834*** [3.01]	-0.885*** [3.82]	-0.943*** [4.13]	-0.900*** [3.93]	-0.967*** [4.00]
Observations	110	110	110	110	110	110	110	110
R-squared	0.32	0.27	0.33	0.32	0.33	0.32	0.32	0.32

Robust t-statistics in brackets

* significant at 10%;

** significant at 5%;

*** significant at 1%

Notes: t_dn_rpr=t_down*r_pre i_oilgas&mach=i_oilgas+i_machin
t_up_rpr=t_up*r_pre i_telcom&energo=i_telcom+i_energo
t_sm_rpr=t_same*r_pre

Table 6. Different measures of post meeting / turnover firm performance as a function of turnover, prior performance, industry belongings and liquidity.

Dependent var.	r_post	r_post	r_post	r_short	r_long	r_post	r_post	r_short	r_long
t_turn		-0.095 [0.88]	-0.085 [0.76]	-0.114 [1.13]	-0.068 [0.76]	0.03 [0.32]	0.065 [0.64]	-0.017 [0.22]	0.041 [0.58]
t_down	0.094 [0.86]	0.178 [1.62]	0.217* [1.88]	0.142 [1.43]	0.146 [1.56]				
t_up	-0.101 [0.82]								
t_same	-0.229* [1.98]					-0.273*** [2.82]	-0.2 [1.52]	-0.129 [0.90]	-0.213** [2.15]
t_often	-0.188 [1.48]	-0.157 [1.40]	-0.208* [1.75]	-0.121 [1.48]	-0.296*** [3.09]	-0.14 [1.16]	-0.148 [1.09]	-0.081 [0.79]	-0.225** [2.36]
t_t_rpr		0.077 [0.76]				0.204* [1.86]			
t_dn_rpr	0.213** [2.10]	0.145 [1.45]							
t_up_rpr	0.185 [1.31]								
t_sm_rpr	-0.186 [1.24]					-0.372** [2.53]			
r_pre	-0.187** [2.51]	-0.188** [2.56]	-0.154** [2.61]			-0.190** [2.55]	-0.157** [2.59]		
i_metal	0.658*** [3.26]	0.669*** [3.38]	0.610*** [3.16]	0.361** [2.49]	0.601*** [4.99]	0.677*** [3.41]	0.633*** [3.17]	0.374** [2.54]	0.613*** [5.01]
i_oilgas&mach	0.396** [2.42]	0.417*** [2.74]	0.389*** [2.63]	0.283** [2.33]	0.294*** [2.69]	0.387** [2.56]	0.388** [2.55]	0.281** [2.28]	0.303*** [2.72]
i_telcom&energo	0.113 [0.79]	0.12 [0.87]	0.098 [0.74]	0.017 [0.16]	0.061 [0.61]	0.116 [0.85]	0.106 [0.77]	0.022 [0.20]	0.07 [0.68]
l_n_days	0.102*** [3.17]	0.102*** [3.19]	0.096*** [3.03]	0.068** [2.13]	0.092*** [3.84]	0.101*** [3.19]	0.096*** [3.03]	0.067** [2.10]	0.091*** [3.81]
Constant	-0.935*** [4.08]	-0.946*** [4.23]	-0.893*** [4.04]	-0.661*** [3.26]	-0.774*** [4.52]	-0.932*** [4.22]	-0.896*** [4.03]	-0.661*** [3.24]	-0.780*** [4.53]
Observations	110	110	110	110	110	110	110	110	110
R-squared	0.32	0.31	0.29	0.22	0.46	0.31	0.29	0.22	0.47

Robust t-statistics in brackets

* significant at 10%;

** significant at 5%;

*** significant at 1%

Notes: $t_t_rpr = t_turn * r_pre$ $t_sm_rpr = t_same * r_pre$
 $t_dn_rpr = t_down * r_pre$ $i_oilgas \& mach = i_oilgas + i_machin$
 $t_up_rpr = t_up * r_pre$ $i_telcom \& energo = i_telcom + i_energo$

Table 7. Different measures of post meeting / turnover firm performance as a function of turnover, prior performance, liquidity and industry dummies (robust regression estimates)

Dependent var.	r_post	r_post	r_post	r_short	r_long	r_post	r_post	r_short	r_long
t_turn		-0.159 [1.62]	-0.151 [1.52]	-0.165 [1.59]	-0.119* [1.68]	-0.063 [0.84]	-0.023 [0.30]	-0.074 [0.93]	-0.001 [0.02]
t_down	0.002 [0.02]	0.147 [1.29]	0.17 [1.50]	0.143 [1.20]	0.143* [1.77]				
t_up	-0.199 [1.57]								
t_same	-0.273 [1.64]					-0.233 [1.41]	-0.195 [1.39]	-0.127 [0.85]	-0.189* [1.91]
t_often	-0.169 [1.26]	-0.127 [1.04]	-0.193 [1.66]	-0.116 [0.97]	-0.272*** [3.34]	-0.117 [0.92]	-0.142 [1.14]	-0.073 [0.55]	-0.225** [2.56]
t_t_rpr		0.175 [1.61]				0.259*** [2.86]			
t_dn_rpr	0.233** [2.05]	0.073 [0.51]							
t_up_rpr	0.315** [2.21]								
t_sm_rpr	-0.096 [0.48]					-0.335 [1.62]			
r_pre	-0.260*** [6.39]	-0.261*** [6.37]	-0.198*** [5.40]			-0.260*** [6.46]	-0.208*** [5.72]		
i_metall	0.496*** [4.11]	0.519*** [4.30]	0.395*** [3.33]	0.304** [2.60]	0.489*** [6.15]	0.512*** [4.37]	0.396*** [3.39]	0.311*** [2.66]	0.485*** [6.22]
i_oilgas&mach	0.251*** [2.70]	0.287*** [3.18]	0.249*** [2.77]	0.270*** [2.86]	0.211*** [3.31]	0.260*** [2.94]	0.237*** [2.65]	0.264*** [2.77]	0.206*** [3.24]
i_telcom&energo	-0.069 [0.84]	-0.054 [0.67]	-0.082 [1.01]	-0.028 [0.33]	-0.051 [0.87]	-0.057 [0.72]	-0.091 [1.13]	-0.025 [0.30]	-0.054 [0.94]
l_n_days	0.077*** [3.27]	0.077*** [3.24]	0.071*** [2.93]	0.047* [1.94]	0.065*** [3.95]	0.078*** [3.30]	0.072*** [3.02]	0.046* [1.90]	0.065*** [4.00]
Constant	-0.617*** [4.38]	-0.635*** [4.51]	-0.564*** [4.02]	-0.488*** [3.49]	-0.510*** [5.37]	-0.628*** [4.56]	-0.562*** [4.05]	-0.483*** [3.43]	-0.506*** [5.39]
Observations	110	110	110	110	110	110	110	110	110
R-squared	0.45	0.43	0.37	0.25	0.54	0.44	0.39	0.24	0.54

Absolute value of t-statistics in brackets

* significant at 10%;

** significant at 5%;

*** significant at 1%

12Notes: t_t_rpr=t_turn*r_pre t_sm_rpr=t_same*r_pre
t_dn_rpr=t_down*r_pre i_oilgas&mach=i_oilgas+i_machin
t_up_rpr=t_up*r_pre i_telcom&energo=i_telcom+i_energo

Table 8. Post meeting / turnover return as a function of turnover, prior performance and industry dummies for most liquid firms.

Choice criteria	n_days			mark_s		
t_down	0.093 [0.97]	0.184** [2.68]	0.173** [2.21]	0.014 [0.12]	0.059 [0.42]	0.067 [0.49]
t_up	0.09 [0.68]	0.111 [0.86]	0.153* [1.72]	-0.082 [0.49]	-0.086 [0.55]	0.187** [2.14]
t_same	-0.366** [2.16]	0.006 [0.07]	-0.02 [0.22]	-0.438*** [3.37]	-0.282 [1.55]	-0.350** [2.20]
r_pre	-0.259*** [3.48]	-0.292*** [3.63]	-0.275** [2.68]	-0.202** [2.57]	-0.214*** [2.79]	-0.224** [2.29]
t_often	0.007 [0.04]	-0.303*** [3.48]	-0.284** [2.56]	0.065 [0.43]	-0.076 [0.48]	0 [.]
i_metal	0.644*** [4.95]	0.653*** [4.95]	0.648*** [4.74]	0.492*** [2.72]	0.631*** [4.71]	0.617*** [4.72]
i_oilgas&mach	0.221 [1.54]	0.225 [1.57]	0.257* [1.73]	0.216 [1.47]	0.243 [1.65]	0.213 [1.42]
i_telcom&energo	-0.249* [1.86]	-0.255* [1.86]	-0.241 [1.66]	-0.227 [1.60]	-0.256* [1.78]	-0.256* [1.77]
Constant	-0.068 [0.55]	-0.057 [0.45]	-0.063 [0.48]	-0.088 [0.68]	-0.084 [0.64]	-0.08 [0.61]
Observations	45	40	35	45	40	35
R-squared	0.54	0.57	0.55	0.5	0.56	0.54

Robust t-statistics in brackets

* significant at 10%

** significant at 5%

*** significant at 1%

Notes: i_oilgas&mach=i_oilgas+i_machin
i_telcom&energo=i_telcom+i_energo

Table 9. Different measures of post meeting / turnover firm performance as a function of turnover, prior performance and industry dummies for most liquid firms.

Dependent var.	r_post	r_post	r_post	r_post	r_short	r_long
Choice criteria	n_days	n_days	n_days	mark_s	n_days	n_days
t_turn	0.092 [1.24]	0.153** [2.72]	0.167*** [2.84]	-0.008 [0.07]	0.076 [0.65]	0.154*** [3.05]
t_same	-0.458*** [2.93]	-0.171** [2.10]	-0.192** [2.11]	-0.334** [2.52]	-0.171** [2.53]	-0.043 [0.93]
R_pre	-0.259*** [3.96]	-0.299*** [4.41]	-0.275*** [2.80]	-0.226*** [3.19]		
t_often	0.007 [0.04]	-0.282** [2.23]	-0.279** [2.11]	-0.024 [0.14]	0.019 [0.18]	-0.356*** [7.82]
i_metal	0.644*** [5.03]	0.655*** [5.08]	0.648*** [4.83]	0.635*** [4.84]	0.539*** [4.28]	0.483*** [5.68]
i_oilgas&mach	0.221 [1.60]	0.218 [1.58]	0.256* [1.79]	0.235 [1.63]	0.217 [1.52]	0.152* [1.76]
i_telcom&energo	-0.249* [1.88]	-0.254* [1.90]	-0.24 [1.69]	-0.257* [1.83]	-0.208 [1.40]	-0.212** [2.43]
Constant	-0.068 [0.55]	-0.055 [0.44]	-0.063 [0.49]	-0.08 [0.63]	-0.146 [1.17]	-0.029 [0.41]
Observations	45	40	35	40	40	40
R-squared	0.54	0.57	0.55	0.56	0.42	0.61

Robust t-statistics in brackets

* significant at 10%

** significant at 5%

*** significant at 1%

Notes: i_oilgas&mach=i_oilgas+i_machin
i_telcom&energo=i_telcom+i_energo

Table 10. Post meeting / turnover return as a function of turnover, prior performance, industry dummies and other control variables for most liquid firms.

Control	-	l_n_days	l_mrk_sh	emission	size	sh_rb sh_for sh_st	sh_all	sh_max	sh_num
t_turn	0.153** [2.72]	0.153** [2.68]	0.152*** [2.75]	0.170*** [3.14]	0.151** [2.47]	0.167*** [3.32]	0.133* [1.84]	0.158** [2.50]	0.148** [2.47]
t_same	-0.171** [2.10]	-0.173** [2.08]	-0.172* [2.00]	-0.191* [1.73]	-0.172** [2.09]	-0.280* [2.01]	-0.209 [1.33]	-0.162 [1.58]	-0.172* [1.91]
r_pre	-0.299*** [4.41]	-0.297*** [4.12]	-0.298*** [4.01]	-0.294*** [3.88]	-0.299*** [4.33]	-0.279*** [3.25]	-0.286*** [3.02]	-0.299*** [4.39]	-0.291*** [3.67]
t_often	-0.282** [2.23]	-0.276* [1.93]	-0.278* [1.82]	-0.282** [2.20]	-0.274** [2.24]	-0.163 [0.72]	-0.249 [1.31]	-0.286* [2.03]	-0.264* [1.73]
i_metal	0.655*** [5.08]	0.655*** [4.89]	0.654*** [4.90]	0.628*** [4.21]	0.654*** [4.75]	0.689*** [4.60]	0.641*** [4.59]	0.645*** [5.38]	0.612*** [3.94]
i_oilgas&mach	0.218 [1.58]	0.219 [1.56]	0.217 [1.52]	0.192 [1.39]	0.221 [1.50]	0.232 [1.66]	0.223 [1.56]	0.208 [1.60]	0.201 [1.44]
i_telcom&energo	-0.254* [1.90]	-0.250* [1.92]	-0.254* [1.91]	-0.266* [1.90]	-0.255* [1.84]	-0.245* [2.00]	-0.250* [1.83]	-0.256* [1.97]	-0.252* [1.89]
control_	-	0.015 [0.22]	0.001 [0.08]	0.052 [0.56]	-0.006 [0.23]	-0.005 [1.68] 0.004 [0.95] 0 [0.06]	0.002 [0.42]	-0.001 [0.18]	0.015 [0.47]
Constant	-0.055 [0.44]	-0.147 [0.35]	-0.083 [0.23]	-0.056 [0.45]	0.038 [0.09]	-0.101 [0.58]	-0.164 [0.54]	-0.031 [0.20]	-0.093 [0.55]
Observations	40	40	40	40	40	40	40	40	40
R-squared	0.57	0.57	0.57	0.58	0.57	0.59	0.58	0.57	0.58

Robust t-statistics in brackets

* significant at 10%

** significant at 5%

*** significant at 1%

Notes: i_oilgas&mach=i_oilgas+i_machin
i_telcom&energo=i_telcom+i_energo

Table 11. Post meeting / turnover return as a function of turnover, prior performance, industry dummies and liquidity for different samples.

Dependent variable		r_post			
CG_good		-0.055 [0.65]	-0.064 [0.74]	-0.037 [0.42]	-0.146 [1.69]
t_down	0.094 [0.86]	0.126 [1.12]	0.113 [1.01]	-0.078 [0.85]	0.160*** [2.97]
t_up	-0.101 [0.82]	-0.051 [0.31]	-0.048 [0.29]	0.047 [0.26]	0.269*** [3.07]
t_same	-0.229* [1.98]	-0.224* [1.86]	-0.129 [0.80]	-0.368*** [2.82]	-0.159 [1.14]
t_dn_rpr	0.213** [2.10]				
t_up_rpr	0.185 [1.31]				
t_sm_rpr	-0.186 [1.24]	-0.229 [1.58]			
r_pre	-0.187** [2.51]	-0.152** [2.45]	-0.159*** [2.64]	-0.249*** [4.84]	-0.280*** [3.09]
t_often	-0.188 [1.48]	-0.217 [1.64]	-0.178 [1.27]	-0.041 [0.32]	-0.127 [0.62]
i_metall	0.658*** [3.26]	0.620*** [3.07]	0.631*** [3.14]	0.411*** [2.71]	0.650*** [4.73]
i_oilgas&mach	0.396** [2.42]	0.402** [2.49]	0.412** [2.56]	0.230** [2.18]	0.228 [1.50]
i_telcom&energo	0.113 [0.79]	0.111 [0.79]	0.113 [0.80]	-0.156 [1.61]	-0.250* [1.85]
l_n_days	0.102*** [3.17]	0.098*** [3.06]	0.098*** [3.08]	0.076** [2.01]	0.006 [0.09]
Constant	-0.935*** [4.08]	-0.911*** [4.00]	-0.917*** [4.03]	-0.558** [2.55]	-0.099 [0.23]
Observations	110	110	110	75	40
R-squared	0.32	0.3	0.3	0.44	0.58

Robust t-statistics in brackets

* significant at 10%

** significant at 5%

*** significant at 1%

Notes: CG_good=(up-down)*r_pre
i_oilgas&mach=i_oilgas+i_machin
i_telcom&energo=i_telcom+i_energo

Table 12. Different measures of post meeting / turnover firm performance as a function of turnover, prior performance, industry dummies and liquidity for different samples.

Dependent var.	r_post	r_post	r_long	r_short	r_post	r_post
t_good		0.123 [1.27]	0.141** [1.99]	0.086 [0.91]	0.147 [1.28]	0.111 [0.86]
t_bad		0.04 [0.32]	-0.001 [0.02]	-0.061 [0.71]	-0.058 [0.47]	0.184** [2.68]
t_turn	0.065 [0.64]					
t_same	-0.2 [1.52]	-0.12 [0.75]	-0.146 [1.32]	-0.118 [0.69]	-0.22 [0.96]	-0.067 [0.34]
r_pre	-0.157** [2.59]	-0.157** [2.55]			-0.287*** [4.22]	-0.292*** [3.63]
t_often	-0.148 [1.09]	-0.162 [1.15]	-0.250** [2.47]	-0.107 [1.05]	-0.294 [1.38]	-0.23 [0.96]
i_metall	0.633*** [3.17]	0.636*** [3.17]	0.616*** [5.06]	0.377** [2.55]	0.504*** [2.85]	0.653*** [4.95]
i_oilgas&mach	0.388** [2.55]	0.374** [2.34]	0.279** [2.40]	0.256* [1.95]	0.187 [1.34]	0.225 [1.57]
i_telcom&energo	0.106 [0.77]	0.099 [0.70]	0.058 [0.55]	0.01 [0.09]	-0.223* [1.70]	-0.255* [1.86]
l_n_days	0.096*** [3.03]	0.096*** [3.01]	0.092*** [3.84]	0.068** [2.11]		
Constant	-0.896*** [4.03]	-0.892*** [3.98]	-0.773*** [4.47]	-0.654*** [3.19]	-0.059 [0.48]	-0.057 [0.45]
Observations	110	110	110	110	50	40
R-squared	0.29	0.29	0.47	0.23	0.47	0.57

Robust t-statistics in brackets

* significant at 10%

** significant at 5%

*** significant at 1%

Notes:

t_good=1 if (down=1 and r_pre<r_pre_m)
or (up=1 and r_pre>r_pre_m)
else t_good=0

t_bad=1 if (down=1 and r_pre>r_pre_m)
or (up=1 and r_pre<r_pre_m)
else t_bad=0

i_oilgas&mach=i_oilgas+i_machin
i_telcom&energo=i_telcom+i_energo

Table 13. Post meeting / turnover return as a function of turnover, prior performance, liquidity and industry dummies for different samples.

Dependent variable		r_post		
Selection criteria	-		t_turn=0	
CG_good1	-0.061 [0.88]	-0.095 [1.04]	-0.087 [1.14]	-0.179* [1.83]
t_same	-0.15 [0.95]	-0.318 [1.37]		
t_often	-0.06 [0.59]	0.012 [0.06]		
i_metall	0.479** [2.34]	0.333 [1.42]	0.425* [1.86]	0.573*** [4.09]
i_oilgas&mach	0.369** [2.52]	0.193 [1.21]	0.371** [2.02]	0.229 [1.40]
i_telcom&energo	0.091 [0.73]	-0.173 [1.11]	0.075 [0.49]	-0.235 [1.54]
l_n_days	0.074** [2.12]		0.084* [1.93]	
Constant	-0.725*** [3.23]	-0.064 [0.38]	-0.748*** [2.69]	0.02 [0.12]
Observations	110	50	86	39
R-squared	0.21	0.3	0.2	0.41

Robust t-statistics in brackets

* significant at 10%

** significant at 5%

*** significant at 1%

Notes: CG_good1=1 if (t_down=1 and r_pre<r_pre_m)
or (t_turn=0 and r_pre>r_pre_m)
or (t_up=1 and r_pre>r_pre_m)
else CG_good=0

i_oilgas&mach=i_oilgas+i_machin
i_telcom&energo=i_telcom+i_energo