Anastasia Zakolyukina

Politically Connected Firms: Effect on Bankruptcy

Moscow
2006

Zakolyukina Anastasia. Politically Connected Firms: Effect on Bankruptcy./ Working Paper # BSP/2006/081 – Moscow, New Economic School, 2006. – 37 p. (Engl.)

The paper examines the effect of political connections on the outcome of bankruptcy procedures. Russian bankruptcy law provides arbitration judges with discretion not to follow the will of creditors to impose external management or to liquidate the debtor. We study a comprehensive sample of bankruptcy cases 1995-2004 in Russia. We use a narrow definition of political connections: a CEO or a member of an executive board being a member of parliament or a top executive at the federal, regional, or municipal level. We show that political connections matter for the timing of bankruptcy procedures. Also, political connections do not result in efficiency-enhancing bankruptcies; in line with a politicians-and-firms story, these firms preserve employment rather than increase productivity.

Key words: political connections, bankruptcy, capture of judiciary

Заколюкина А.А. Политические связи фирм: влияние на банкротство./ Препринт # BSP/2006/081 - М.: Российская Экономическая Школа, 2006. – 37 с. (Англ.)

В этой работе рассматривается влияние политических связей на исход процедуры банкротства предприятий. Российское законодательство о банкротстве дает право судьям арбитражного суда не следовать решению первого собрания кредиторов о введении процедуры внешнего управления или ликвидации. Мы рассматриваем выборку российских предприятий-банкротов за 1995-2004 гг. В данной работе используется узкое определение политических связей, а именно: директор или член Совета директоров является депутатом законодательной либо исполнительной власти на федеральном, региональном или муниципальном уровнях. Мы представляем эмпирические свидетельства того, что политические связи влияют на время введения процедур банкротства. Причем наличие таких связей, как правило, не приводит к улучшению эффективности предприятия в процессе процедуры. Согласно истории о ``политиках и фирмах``, эти предприятия сохраняют занятость работников, вместо того чтобы приводить к росту производительности.

Ключевые слова: политические связи фирм, банкротство, влияние на судопроизводство

Contents

1   Introduction

The lack of effective bankruptcy policy has been widely recognized as one of the major institutional weaknesses of Russia's business environment. The threat of manipulation by judicial decisions seems to turn bankruptcy litigation into the key instrument of expropriation.

The current bankruptcy law, adopted in 2002, is the third bankruptcy law adopted in post-Soviet times. The fist one, adopted in 1992, "was woefully inadequate and barely functioning at all" (Tompson 2004). The law specified a rather complicated procedure for a firm to be declared bankrupt and led to just a few bankruptcies. Thereafter, the bankruptcy law of 1998 significantly increased the number of bankruptcy cases from 4,320 in 1997 to 8,337 in 1998 (Higher arbitration court of the Russian Federation). However, the bankruptcy procedure as stipulated in the second bankruptcy law was easily manipulated. Any creditor with a two-month outstanding debt of 40 thousands RUR (1,333 USD) or more could initiate this procedure. Counterfeit debts were often employed in severe struggle for debtors assets. Furthermore, sometimes creditors did not accept repayments, in order to keep a debtor in bankruptcy (Profil 2002). In addition, ample anecdotal evidence point to easiness of hostile takeovers under this procedure. The government estimated that at least a third of all bankruptcy cases were bankruptcies 'to order'.

In general case, Russian bankruptcy law defines the bankruptcy procedure as a three-stage process, in which each stage is managed by a particular bankruptcy administrator: the first stage is supervision, during which the first creditors' meeting is held; the second stage is (optional) imposition of external management, during which a firm is given a chance to restore solvency; and the third stage is liquidation, in which a firm is declared bankrupt. All of these three stages are vulnerable to abuses. However, the optional second sage, imposition of external management, deserves special attention for several reasons. The fundamental decision, taken at the first creditors' meeting, about whether to impose external management in a distressed firm or to liquidate it is subject to judicial discretion. A court may choose not to follow the creditors' decision, but instead choose to initiate the procedure the court proclaims efficient[1].

The external management stage involves the following steps. First, a stay is put on creditors' claims, i.e. no creditor is allowed to seize any of the firm's assets during the external management process. Second, each creditor behaves independently in voting for restructuring plan proposed by the bankruptcy administrator (majority vote). Third, the incumbent

---

[1]Courts' decisions are mainly external management biased in case of "socially-important" firms.

management is deprived of all control rights and the external manager acquires full authority. The external management term is fixed[2]; however, the term is frequently extended far beyond the term limit as stated in the bankruptcy law. If, after the external management term, solvency is not restored or a voluntary agreement is not signed, the firm is declared bankrupt and liquidation follows.

Court-appointed bankruptcy administrators represent the key channel for manipulation in bankruptcy procedures. This claim is supported by the fact that legal and political "battles" often have erupted between rival groups of creditors over an appointment of a suitable bankruptcy administrator.

As an example, in 1999 in Kemerovo oblast, Sergei Kuznetsov, an external manager of the Kuznetski metallurgic plant (KMK), was arrested soon before the regional elections. The plant was captured by the Kemerovo militia and a new management was appointed. Two weeks later, the Kemerovo oblast court freed Mr. Kuzntsov, motivating this court decision by the fact that a wrongful arrest had been made. Mr. Kuznetsov was closely affiliated with one of the creditors of the plant, MIKOM. During the time when Mr. Kuznetsov was held in arrest, MIKOM is said to have sent out a notification to the main business partners of the plant, urging them not to cooperate with the new management of KMK. As a direct consequence of MIKOM's instructions, Sberbank terminated its transfers to the plant. The oblast authorities claimed that they wanted to prolong the term of the external management for an additional 10 year period and that they wished to convert the plant to oblast property thereafter (Segodnia 1999).

This brief discussion of the policy context has revealed a number of critical issues concerning the current Russian bankruptcy procedure that are analyzed in this paper. A large strand of empirical and theoretical research examines institutional subversion (state capture) when "vested interests influence the evolution of the very rule of the game in the economy" (Slinko et al. 2003). Hellman et al. (2003) study effects of a presence of influential and/or captor firms in transition economies. And they claim that 27% of all Russian firms surveyed reported capture of commercial court decisions[3].

The particular effects of capture of judiciary on implementation of bankruptcy procedures are examined by Lambert-Mogiliansky et al. (2003). They argue that external management was primarily exploited by regional governors and the incumbent management of large firms in

---

[2]The law 2002 states that the term can be extended up to two years

[3]The authors also classify Russia as a highly captured economy.

order to leave outside claim holders unsatisfied. A possible explanation of this is the capture of regional arbitration courts.

This master thesis is based on a similar idea, but differs in several ways. The sample of bankrupt firms comprises of observations from the time period 1995-2004, whereas the empirical part of the Lambert-Mogiliansky et al. (2003) study only included the time period 1998-1999. Furthermore, the empirical method employed to analyze the effect of capture on the bankruptcy procedures in this paper differs from the methods applied in Lambert-Mogiliansky et al. (2003): whereas this paper employs a dynamic panel model and a Cox's proportional hazards model, Lambert-Mogiliansky et al. (2003) use multinomial logit and DID estimations. In addition, here, we use political connections of individual firms, whereas the study in Lambert-Mogiliansky et al. (2003) appealed to "political strength of governors" in regions where firms were incorporated.

In this paper, we analyze capture of judiciary: courts' decisions are heavily shaped by the parties that are able to offer more favors to judges, in relative terms. Anecdotal evidence indicates that politicians, in general, are able to offer more private benefits to judges in highly-captured environments. The World Bank (2000) survey indicates that only 18% of Russian respondents believe that judiciary in Russia is reliable. Capture, in the case of bankruptcy, means more frequent initiation of external management (that appears to be more favorable to debtors) in politically connected firms. According to the Doing Business report (2005) there is a positive relationship between the degree of court discretion in the bankruptcy procedure and corruption.

Further, Shvets (2003) analyzes decisions of lower level and appellation arbitration courts in the Russian regions testing two hypotheses: first, "judges due to their Soviet past are biased toward the State in their decisions", and second, "Russian judges are heavily influenced by large enterprizes". However, she does not find any empirical support for her hypotheses. In addition, there is one more similar view on the Russian judiciary: Hendley (2004) suggests that "unqualified pessimism about the enforceability of arbitrazh court judgements that has become standard in the scholarly literature and the popular press is unfounded"[4]. However, Shvets (2005) finds evidence that judges selected by the executive branch "tend to favor small firms less than those selected by the legislative branch".

The other strand of literature that is relevant to our work is the research on the effects

---

[4]Important note, the sample employed is small and biased due to the fact that only those who use arbitration courts were interviewed.

of political connections. Fisman (2001) provides evidence that a 0.59% drop in the prices of the shares of firms affiliated to Suharto followed when bad news about Suharto's health were released. Furthermore, Faccio (2006) reports the share price increase of 1.43% induced by news of business people entering politics. Faccio and Parsley (2006) also demonstrate a 1.93% drop in the share value around sudden deaths of politicians under different definitions of political connections.

Several relevant criteria for defining political connections of firms can be identified. First, a "geographic" approach, i.e. politicians favor "local" firms (Faccio 2006). Second, "indirect" connections, i.e. if the top management of a firm is closely affiliated (relative ties, friendship) with politicians (Fisman 2001). Third, "direct" connections, i.e. a member of the top management of a firm is a deputy, a governor, etc. (Faccio 2006). In this master thesis we define political connections in accordance with the third approach, as "direct" political connections of top management or owners of a firm.

The literature on interactions between politicians and firms stresses the issue of employment protection (Shleifer and Vishny 1994, Slinko et al. 2003). Most public firms are under political pressure to employ too many people in order to secure votes (the politicians-and-firms story by Shleifer and Vishny 1994). Politically connected firms can borrow more (Khwaja and Mian 2005) and have greater chances to be bailed out (Faccio et al. 2005).

The empirical evidence presented in this master thesis are based on a unique data set of bankrupt and politically connected firms from 1995 to 2004. Four hypotheses are tested. Two of them are related to the timing of bankruptcy and, in particular, of external management or liquidation. These hypotheses are based on the capture of judiciary literature. The next two hypotheses are related to the issues of efficiency improvements under politically connected external management. Anecdotal evidence and previous empirical research suggest that the imposition of external management has no efficiency-improving effect, irrespective of the presence of political connections.

We find that politically connected firms, controlling for individual firm' characteristics, are indeed "protected" from liquidation. Furthermore, we show that political connections are irrelevant for the timing of the external management procedure. These results are consistent with anecdotal evidence as well as with our hypotheses. The hypothesis that political connections matter for external management performance is rejected. Moreover, these results are robust in various different specifications. In addition, we obtain evidence that external management procedure does prevent employment cuts, whereas "direct" political connections are irrelevant

7

for employment dynamics in externally managed firms. Thus, we obtain empirical argument that politically connected externally managed firms preserve employment despite low labor productivity in accordance with the politicians-and-firms story.

The paper proceeds as follows. Section 2 formulates testable hypotheses and presents anecdotal evidence underpinning them. Section 3 describes the data. Section 4 describes the methodology , after which Section 5 presents the estimation results and robustness checks. Section 6 concludes.

2 Hypotheses

2.1 The key story

I now proceed to outlining the key story that has motivated my research. The story depicts a bailout of a politically connected firm. The state-owned, meat-packing plant GUP "Vostochny" (of Udmurt Republic) went bankrupt in 2000: a point in time in which the firm had accumulated wage arrears of 4,8 mln RUR (0.16 mln USD), budget and off-budget fund arrears of 28,8 mln RUR (0.89 mln USD), and trade arrears of 31,0 mln RUR (1 mln USD). The meat-processing plant had a: 60 % share of the republic's meat market, and constituted a company-town. The firm was owned by the republic's Ministry of Agriculture. FSFO[5] filed for bankruptcy and opted for initiation of external management. One of the main external management objectives was to prevent employment cuts. The firm was reorganized into the joint-stock company OAO "Vostochny", and the regional government provided 25 mln RUR (0.83 mln USD) in budget-guaranteed credits in order to support the reorganization. Anecdotal evidence claims that shares mainly were distributed privately among government affiliates; creditors were not paid back in full. Interestingly, the external manager was simultaneously a deputy of the republic's Duma and he took on the post as director general after the bankruptcy procedure was terminated after a stated successful "solvency restoration". Furthermore, this bankruptcy case is reported by the FSFO as a success story: the bankruptcy procedure brought growth in employment, sales and labor productivity. In 2005, the firm employed 2336 people and its sales reached 1133 mln RUR (37.77 mln USD). We lack data on the firm's dynamics of labor productivity under the external management term. However, following the bankruptcy, there was a 2.3-fold

---

[5]Federal Bankruptcy Service for Financial Rehabilitation and Bankruptcy (FSFO), liquidated under the Administrative reform in the spring of 2004.

increase in labor productivity from 2000 to 2005[6]. Moreover, OAO "Vostochny" was listed as a "top five" pig-farming meat-processing plant in Russia just after the external management period was over[7].

My simplified story is the following[8]. Politically connected (PC) firms are "protected" from entering the state of bankruptcy. Moreover, PCs matter for the timing of EM and LQ. In addition, PC firms are bailed out under EM, no restructuring follows, and EM is imposed to preserve employment. Below I list the hypotheses.

It is important to note that I define "direct" PCs in the following manner: a firm has direct PC if the CEO or a member of the executive board is a member of parliament or a top executive at the federal, regional, or municipal level. Therefore, it should be noted that the effects of PCs generally are underestimated in my empirical investigation since I do not take into account neither "local" nor "indirect" PCs.

2.2 Initiation of bankruptcy

Firstly, we turn to effects of PCs on the decision about bankruptcy initiation.

H_1 : PCs have <u>negative</u> effect on bankruptcy timing.

Theoretical motivation for this hypothesis can be found in a politicians-and-firms story by Sleifer and Vishny (1994): politicians may want to "protect" firms for the sake of preserving employment (securing votes). The survey of Russian firms in 1996 claimed that 45% of Russian managers reported that firms they manage would be able to produce the same output with less labor[9]. Therefore, in the case of independent courts, there might be need for employment cuts under EM to restore solvency and to exit the bankruptcy state. So, the presence of PCs is expected to have negative effect on the timing of bankruptcy.

However, in the case of captured courts (Lambert-Mogiliansky et al. 2003), bankruptcy might help to leave outside creditors unsatisfied and to go out of the procedure without any reduction in employment. That might happen through EM when a firm is legally reorganized into a joint-stock company and creditors are paid out of the proceeds from its stock sale. Then employment is preserved in the new joint-stock company and incumbent management

---

[6]Labor productivity was 18.3 thousand RUR in 2000 and 42.2 thousand RUR in 2005 (in prices of 1995).

[7]Official web-site of OAO "Vostochny" is www.vostoc.ru

[8]Here I introduce the notation that will be used further in the text: political connections - PC; external management - EM; liquidation - LQ.

[9]See Moskovskaya, A., Izbytochnaya zanyatost' na promyshlennyh predpriyatiyah Rossii: pro at contra, Voprosy Economiki 1: 50-72, 1998.

may benefit from cancelling outstanding debts. So, under the alternative, we may get positive effect: PC firms take advantage of EM to leave outside claims unsatisfied and launch bankruptcy procedure as soon as it becomes easy-to-initiate, e.g. law 1998, 2002. For this reason, one might need to differentiate between the timing of EM and LQ.

H_2 : PCs have <u>different effects</u> on the timing of EM and LQ initiation: <u>nonnegative</u> for EM and <u>negative</u> for LQ[10].

Judicial discretion with hypothetical political influence over judges can lead to special treatment of PC firms in bankruptcy context. For instance, courts' judgements in favor of EM can be motivated by "social-importance" of debtors. Note that the definition of a "socially-important" firm is provided in terms of employment by the current law[11]. There is anecdotal evidence that political connections, indeed, matter for dispute resolutions and influence on militia. Below we provide an example of this practice.

In 2001, Valery Gartung, a deputy of the Duma of Chelyabinsk oblast, initiated a criminal case against Valery Panov, an external manager of UralAZ (the Uralsky automobile plant, Chelyabinsk oblast), blaming him in assets tunnelling. Mr.Gartung owned 1% of the plant. The mayor of Chelyabinsk had already attempted to initiate a criminal case against Mr. Panov, but there was no cause of accusation and initiation of a criminal case was rejected. Mr. Gartung insisted on singing a voluntary settlement with creditors and closure of the bankruptcy case since under the current restructuring plan he had little hope to get anything (Vedomosti 2001).

Important to note that PCs can benefit firms by postponing or pushing forward a procedure in case of captured courts. On one hand, EM does not induce firms' closure: firms can still operate controlled by friendly external managers (Lambert-Mogiliansky et al. 2003) leaving outside claims unsatisfied. Therefore, one can expect significantly positive or insignificant effect of PCs on the timing of EM. On the other hand, LQ implies firms' closure that most likely makes current management worse off[12]. Thus, one can expect negative effect of PCs on the timing of LQ. As an extreme, PC firms might never be liquidated. Consequently, we are interested in estimation of PCs' effects on firms' performance in EM rather than in LQ.

Another possibility would be that independent courts make both EM and LQ inferior outcomes for incumbent PC management: PC management does not only lose control over its firm,

---

[10]In other words, firms are "protected" from LQ and "do-not-mind" being EM.

[11]Company-town is a firm that employs not less then 25% of residents of a built-up area (§169 law 2002) or employs not less than 5000 people.

[12]Even short run manipulation by the LQ procedure might not compensate the long-run loss for PC management.

but also likely to lose votes of its employees. So, PC firms may tend to employ the out-of-court settlement under the threat of bankruptcy more often than non PC ones irrespective to whether EM or LQ is the most probable outcome of bankruptcy initiation.

2.3   Quest for efficiency improvement

Legal goal of EM is solvency restoring. Figure 1 shows that this is rarely the case. Here we offer two hypotheses to test whether the presence of PCs can offer some explanations for the tendency.

H_3 : PCs have <u>positive</u> effect on firms' performance under EM.

EM can provide a politician with time and resources to turn the case in his favor: toning down social unrest, assets tunnelling, etc. Lambert-Mogiliansky et al. (2003) have empirically shown that there is no improvement in efficiency measures following EM in general. Here, we specifically argue for particular effects of PC EM.

The key story shows that there could be a bailout in bankruptcy. In contrast to Faccio et al. (2005), we were not able to find anecdotal evidence of bailouts of PC firms, except for the one case presented here, likely this data is protected from leaking. However, some indirect arguments for bailouts could be revealed by performance measures, e.g. sales. We suggest that PC insolvent firms may have a completely different pattern for bankruptcies. Stressing "social-importance" of insolvent firms politicians may have greater chances to force bailouts and preferential treatment for firms they manage.

Alternatively, PCs might not have an effect on performance measures. It might be rather hard to ask a limited regional budget for a bailout of an individual insolvent firm: it should depend a lot on the extent of political interest in that firm. It might be that the key story is just an exception.

H_4 : <u>No decrease</u> in employment following EM irrespective of the presence of "direct" PCs.

Lambert-Mogiliansky et al. (2003) obtain empirical argument that there is no change in employment following EM in general. In addition, this hypothesis is supported by the politicians-and-firms story not only for the case of PC firms. Moreover, bankruptcy law itself facilitates EM initiation in "socially-important" firms: the law authorizes courts to impose EM irrespective of creditors' decisions if municipal, regional, or federal authorities appeal for EM initiation in order to protect local employment.

Another possibility would be that only the direct influence of PC firms makes EM avoid em-

ployment cuts. Then, one should get greater absolute positive effect of PC EM on employment compared with negative effect of EM.

3   Data

Several data sets were employed: firm-level financial data come from the Russian Enterprize Registry Longitudinal Dataset (RERLD) of balance sheets for medium and large Russian industrial enterprizes; balance sheets information was also supplemented by the Prime-tass (2000-2004) data set. The Labyrinth was used to find the evidence of "direct" PCs.

The main data set employed in this research is data assembled for "Capture of Bankruptcy: Theory and Russian Evidence" paper by Lambert-Modiliansky, Sonin, and Zhuravskaya (2003)[13]. This data set is unbalanced panel 1995 - 2000; bankruptcy records are up to 1999. The authors use bankruptcy cases only for 1998 and 1999 period in their empirical investigation. This data set comprises of bankrupt and non bankrupt firms.

For firms from the main data set I have collected information on bankruptcy procedures from 1999 till now. Data on a year of initiation of LQ come from the journal Vestnik of FSFO[14] from November 1999 till January of 2003; LQ and EM announcements from January 2003 till now are from Rossyiskaya gazeta[15]; years of EM come also from AK&M[16] news data base from 1999 till 2006.

New data on bankruptcy was then merged with the main data set. New financial data come from the Russian Enterprize Registry Longitudinal Dataset (RERLD) that formed unbalanced panel from 1995 till 2004. The reason for firms to appear in the data set and then to disappear is not know, so I can not speculate on new firms and firms liquidated outside bankruptcy. Employment and industry deflated sales were adjusted within each firm so that they are comparable only within a firm for different years, but not between firms[17]. Only within-comparability

---

[13]I am grateful to Ekaterina Zhuravskaya for this data set.

[14]This journal duplicated bankruptcy announcements from Vestnik of Higher arbitration court of Russia

[15]Vestnik of Higher arbitration court till 2003 and afterwards Rossyiskaya gazeta are two official sources where bankruptcy announcements are to be published. Bankruptcy administrators are authorized to submit them.

[16]AK&M stands for the news agency "Analysis, Consultations and Marketing".

[17]Balance sheets often have different units of measure for different years, i.e. sales can be measured in millions in one year and in thousands in the other; the same may happen with employment, i.e. it can be measured in thousands and hundreds. I applied the following automatic procedure for adjustment: sales can not rise for more than 50 times from year to year; employment can not jump more than 10 times; sales to employment ratio can not change by 1000 times.

of sales, employment, and labor productivity restricts my estimation methods, it should be kept in mind for the presented estimation results.

The Labyrinth data set contains informal but very detailed account of histories of some Russian firms, lists of elected candidates on city, regional and federal elections and short biographies of the most of politicians (mainly regional and federal ones)[18]. I find maximum from the year when a person becomes elected and the year when he takes up a management position in a firm, i.e. this firm becomes PC one. Here I assume that state of being PC persists overtime and starts from the first episode. Only bankrupt firms were checked for the presence of "direct" PCs through their management. Then I take the data set of bankrupt firms and merge it with the data set on PCs of non bankrupt firms. PCs of non bankrupt firms are PCs of oligarchs that own these firms from the study of Guriev and Rachinsky (2005). One can doubt if it could be done: bankrupt firms are PC through their managers whereas non bankrupt ones through their owners. However, Bonne and Rodionov (2001) argue that many firms owned by oligarchy are actually management-owned, i.e. the oligarch is a manager and an owner of a firm at the same time.

We employ the ratio of votes for winners to votes for runners-up on regional gubernatorial elections to construct an instrument for PCs[19]. The higher this ratio the lesser is competition on gubernatorial elections.

Summary statistics are presented in Appendix. Figure 1 shows dynamics of outcomes of EM procedures in Russia: number of EM initiated; number of cases when EM firms were liquidated, restored to solvency or ended upon voluntary settlement. Solvency restorings account only for 0.7% in 2002 to 4.5% in 1998 out of all EM cases in a particular year. Most firms get LQ after EM. What was the motivation behind EM initiation then? In this paper, we will make an attempt to provide some insights on possible reasons behind this observation. Table 1 highlights composition of firms in our sample. In the second and the third block of Table 1, we present the number of bankruptcy cases initiated by year (from our sample): 1998 and 2002 have the greatest number of bankruptcy cases initiated, 655 and 278 respectively. Table 2 compares means of variables employed in estimation: non bankrupt firms are significantly more politically connected, have lower leverage ratio, and lower ratio of arrears to assets; LQ firms are significantly less politically connected, have greater leverage, and greater ratio of arrears to assets; whereas EM firms lie in the middle.

---

[18]The data set description could be found at http://www.panorama.ru/info/labir.html

[19]I am grateful for Akhmed Akhmedov for this data on Russian regions.

13

4 Methods applied

4.1 Cox's proportional hazards model

To estimate effects of PCs on the timing of bankruptcy and separately on initiation of EM and LQ I apply the Cox's (1972) proportional hazards model. This duration model seems to be the most appropriate one since it does not require complicated parametric assumptions[20].

However, why do we need to concentrate on the timing when static discrete models can perfectly tell if PCs affect probabilities to belong to EM, LQ, or non bankruptcy groups? One possible answer is the following: the dynamic dimension of duration models allows to estimate effects of PCs when other characteristics of firms and institutional environment are changing, e.g. firms may accumulate larger arrears, an arbitration court president may change as time passes by. In addition, in practice, most firms have outstanding debts enough to initiate bankruptcy, so that a bankruptcy petition can be filed any time. Therefore, natural question to ask is what affects the timing of the bankruptcy petition, in particular, what is the effect of PCs.

Importantly, this specification, in contrast to the multinomial logit employed in Lambert-Mogiliansky et al. (2003), does not allow to make comparison between different types of failure events.

The failure event, in case of our study, is bankruptcy. In addition, bankruptcy events could be sorted out into two different failures: EM and LQ[21]. This classification is important, since these two events have completely different consequences for firms: EM keeps them operating; LQ closes their operations. Below, we present the basics of duration analysis.

Hazard ratio is the probability per time unit that a firm that has survived to the beginning of the respective interval will fail in that interval, i.e. go bankrupt.

The Cox's proportional hazards model is a nonparametric duration model which assumes that for two different firms ratio of hazards is constant overtime (proportionality assumption):

$$h(t) = h_0(t)exp(X'b)$$

$h(t)$ - hazard ratio at t; $h_0(t)$ - baseline hazard; X - matrix of time-varying covatiates; b - vector of coefficients to be estimated. The method employs the Cox's partial likelihood estimation of b without requiring the baseline hazards to be estimated.

---

[20]But it does require proportionality assumption to hold.

[21]This depends on the first procedure initiated: whether it was EM or LQ.

Coefficients are reported in the form $exp(b_k)$ that is the deviation from the baseline hazards ratio for a one-unit change in X_k. With time-varying covariates, the Cox's method requires the covariates to be strictly exogenous (Wooldridge 2002). Here we implicitly assume exogeneity. However, we do test for the proportionality assumption for both the regression in general and for each independent variable in particular.

We assume that all cases become at risk, i.e. possibly can go bankrupt (EM or LQ), from the year 1998[22].

Estimate of PCs' effect will not be biased only if the assumption of exogeneity of PCs holds. However, possible endogeneity of PCs is rather an important issue here[23]: PCs dummy can correlate with error term in the equation for the hazards ratio. In other words, we may end up with positive selection, i.e. "bad" firms become PC expecting "protection" from bankruptcy, or with negative selection, i.e. only "good" firms become PC naturally having lower chances of bankruptcy. In the former case we will get significantly positive effect of PCs on hazards ratio (going bankrupt) not because PCs induce bankruptcy, but because "bad" firms become PC to get "protection" from bankruptcy and this "protection" fails; in the latter case the effect may be significantly negative, not because PCs strongly "protect" from bankruptcy, but because "good" firms rarely go bankrupt. One way to deal with this problem is to apply instrumental variables technique, i.e. one needs to find the parameter (an instrumental variable) that strongly correlates with PCs, but not with error term in the hazards equation. In other words, the instrumental variable must affect the hazards ratio only through its effect on PCs.

Indeed, endogeneity is an issue in our specification: we can not include sales and employment directly into our hazards equation, since these variables have different units of measure for different firms. It seems that omitted absolute values of sales and employment should matter for bankruptcy decisions and chances of being PC. Therefore, to obtain unbiased estimate of the effect of PCs we need an instrument.

Estimation strategy with an instrument consists of two stages[24]: estimation of a "demand" equation for PCs, where we use probit model; estimation of the Cox's specification employing estimates of PCs from the first stage. "Demand" for PCs at time t is hypothesized to be a latent variable T_i^* that depends on covariates (characteristics of a firm) from the hazards equation X_i

---

[22]It was mentioned in the Introduction part that the first law 1992 was barely functioning and overall firms had very low chances to go bankrupt under that law.

[23]In other words, PCs are some kind of treatment, i.e. firms choose whether or not to receive this treatment.

[24]Strategy follows Eyal, Yonatan and Michael Beenstock, 2005, "The effect of vocational training on unemployment duration: estimation by natural experimentation".

and the instrument Z_i. The equation for the first stage is:

$$T_i^* = \alpha_1 X_i + \alpha_2 Z_i + \upsilon_i$$

, where υ_i is an independent random variable due to unobserved heterogeneity. We assume that

$$T_i = 1, T_i^* > 0$$

The hazards ratio is hypothesized to depend on characteristic of a firm X_i and PCs which is T_i.

$$h_i(t) = h_0(t)exp(X_i'b + \theta T_i)$$

This equation uses the instrumented value for T_i. The the second stage coefficients are consistent and asymptotically normally distributed (Murphy and Topel 1985)[25].

We will also need a definition of a survivor function that is cumulative proportion of cases surviving up to the respective interval.

4.2 Dynamic panel with fixed effects

To estimate effects of PC EM and EM on performance measures I apply fixed effects dynamic panel with the Arellano-Bond estimation technique.

$$Y_{it} = Y_{it-1}a_1 + ... + Y_{it-p}a_p + X_{it}b + \mu_i + \epsilon_{it}$$

$i = 1, .., N$, $t = 1, ..T_i$; $a_1,...,a_p$, b - parameters to be estimated; X_{it} - $1 \times k$ vector of strictly exogenous covariates; μ_i - individual component; ϵ_{it} - iid over the whole sample.

Assumpiton: μ_i and ϵ_{it} are independent for each i over all t

Assumpiton: No autocorrelation in ϵ_{it}

Therefore, it is necessary to verify the hypothesis that there is no autocorrelation of a certain order in residuals.

Arellano and Bond (1991) derived a GMM estimator using lagged levels of the dependent variable and differences of the strictly exogenous variables. Dynamic nature of the specification does not allow to apply regular fixed effects regression since endogeneity brings inconsistency of estimates.

---

[25] "Estimation and Inference in Two-Step Econometric Models", Journal of Business and Economic Statistics, vol.3(4), 1985.

This specification is applied for the following performance measures: sales, employment, and labor productivity. In order to pull measurement units (different for every firm) into fixed effects I take logs of these variables.

To perform robustness checks I apply: the regular fixed effects regression with clustering by firms' id; the multinomial logit specification; the MNR[26] method. The MNR method was first employed in studying effects of privatization by Megginson et al. (1994). I take their idea and alter the test for some of my variables that have different units of measure for different firms. The MNR procedure is the following: (i) take means for pre- and post- performance measures (year when an event happens is excluded, at least two pre-, post- observations must be available); (ii) apply Wilcoxon signed-rank test for significant change in absolute values of dimensionless variables or, alternatively, t-test for growth rates adjusted for overall economic growth to the equality of its mean to unity in order to define the direction of the change.

5   Estimation results

5.1   Duration analysis

We start with the analysis of the timing (duration from 1998) when firms go bankrupt. Figure 2A presents Kaplan-Meier estimator of survivor functions of PC and NOT PC firms. At first glance, PC firms have greater chances not to go bankrupt even if we control for leverage (Figure 2B). Cox's test does not reject difference in survivor functions for PC and NOT PC firms at 1%. However, PC firms can be better on average and therefore have greater chances to avoid insolvency. Therefore, one has to control for other firms' characteristics to check if this tendency persists.

Table 3 provides statistics for pre-bankruptcy performance measures for EM and LQ firms. There is significantly more PC firms among those that end up in EM. LQ firms have greater leverage, worse current liquidity ratio, lower employment growth, and greater tax arrears.

The IV specification follows below. The first stage equation for "demand" for PCs in year t is:

$$PC_{it}^* = \alpha_1 X_{it} + \alpha_2 Political\_"monopoly"_{it} + \alpha_3 Industry\_dummies_{it} + v_{it} \qquad (1)$$

, where v_{it} is an independent random variable due to unobserved heterogeneity; X_{it} is the same set of covariates as used at the second stage; $Political\_"monopoly"_{it}$ is categorized dummy: 1

---

[26]I am grateful to Sergei Guriev for his advice to try this method.

if ratio of votes for winners to runners-up on last gubernatorial elections is greater than its median value (high "monopoly") and 0 if lower (low "monopoly")[27].

The intuitive effect of political "monopoly" must be negative. We assume that

$$PC_{it} = 1, PC_{it}^* > 0 \tag{2}$$

, where PC_{it} - dummy for being PC: 0 - when a firm is not PC, 1 - from the year a firm becomes PC, i.e. a CEO or a member of an executive board becomes a member of parliament or a top executive at the federal, regional, or municipal level, and on;

The second stage is the Cox's model. The proportionality assumption holds for Instrumented PCs at 10% and for the other estimates reported at 1% significance level. Three presented models have the same specification (i - firms' id, t - time):

$$h_i(t) = h_0(t) exp(\alpha_1 Instrumented\_PC_{it} + \alpha_2 Leverage_{it} + \alpha_3 Current\_Liquidity_{it} + \alpha_4 Cash\_flows_{it}$$
$$+ \alpha_5 Labor\_prod.\_growth_{it} + \alpha_6 Employment\_growth_{it} + \alpha_7 Tax\_arrears_{it}$$
$$+ \alpha_8 Wage\_arrears_{it} + \alpha_9 Trade\_arrears_{it} + \varepsilon_{it}) \tag{3}$$

, where $h_i(t)$ - hazards ratio for the firm i to go bankrupt (EM, LQ) at time t, i.e. probability of going bankrupt (EM, LQ) at t if the firm has not gone bankrupt (EM, LQ) yet; $h_0(t)$ - baseline hazards ratio identical for complete sample of firms at time t, i.e. estimated coefficients tell in what direction and how much the hazards ratio for an individual firm differs from the baseline hazards ratio for all firms.

The list of covariates $X_i t$ is the following: $Instrumented\_PC_{it}$ - instrumented value for PCs from the first stage; $Leverage_{it}$ - log of debt to assets ratio; $Current\_Liquidity_{it}$ - log of liquid assets to short term liabilities; $Cash\_flows_{it}$ - negative log of costs per unit of sales; $Labor\_prod.\_growth_{it}$ - log growth in labor productivity; $Employment\_growth_{it}$ - log growth in employment; $Tax\_arrears_{it}$ - log tax arrears to total assets ratio; $Wage\_arrears_{it}$ - log wage arrears to total assets ratio; $Trade\_arrears_{it}$ - log trade arrears to total assets ratio; ε_{it} - error term.

If we include industry dummies into the Cox's model then the overall proportionality test and the proportionality test for Instrumented PCs become much worse. In addition, predictive

---

[27]If we employ absolute level of political "monopoly" rather than categorized value then results are driven mainly by Kemerovo oblast that has political "monopoly" ratio equal to 131.75, whereas Novgorod oblast has the closest value equal to 70.46. Therefore, we increase variation by introducing categorized dummy, but F-test for the rule of thumb gets worse.

power of the model does not gain from inclusion of industry dummies. Based on this observation we do not include industry dummies into our final specification.

We examine three possible challenges for instrumental validity of political "monopoly". First, we check if firms' characteristics that have PCs are distributed differently when the political "monopoly" is high and when the political "monopoly" is low, i.e. patterns for being PC are different under different extents of political "monopoly". If they have different distributions, then we get self-selection according to political "monopoly" and joint regression will not have much sense. Table 4A examines firms' characteristics in regions with high and low political "monopoly". Significant at 1% difference is found only for leverage, cash flows, and trade arrears.

We estimate the first stage using the probit model for each year. It was shown that coefficients obtained in this case are consistent and asymptotically normal. The Stock and Watson's rule of thumb for the choice of instruments claims that the first-stage F-statistic testing the hypothesis that the coefficients on the instruments are jointly zero should be at least 10. In Table 4B we report probit estimates for "demand" for PCs and F-statistics for political "monopoly". The political "monopoly" coefficient is everywhere significantly negative and its F-statistics varies from 3.18 in 1999 to 14.72 in 2004[28].

Results are consistent with our hypotheses. Table 4C reports estimates of the two stage IV estimation. Instrumented PCs have no effect on EM timing. However, significantly negative effect on bankruptcy and LQ timing: the presence of PCs decreases the baseline hazards by 91% at 1% significance level for bankruptcy, and by 98% at 1% significance level for LQ.

To summarize, PCs have no effect on EM initiation and significantly negative effect on bankruptcy and LQ initiation[29] that is in line with our hypotheses. In particular, that means that EM is not that harmful for PC firms in the environment of captured judiciary that confirms the Lambert-Mogiliansky et al. 2003 story.

5.2   Dynamic panel analysis

Now turn to effects of PCs on firms' performance under EM. We specify the dynamic model with fixed effects. This specification assumes that sales, employment and labor productivity

---

[28]However, if we plug in the absolute level of political "monopoly" then the F-statistics always greater than 10.

[29]That seems to be a quite natural choice for incumbent PC management.

are AR processes. The specification is the following:

$$Y_{it} = \alpha_1 Y_{it-1} + \alpha_2 Y_{it-2} + \alpha_3 PC_{it} + \alpha_4 EM_{it} + \alpha_5 LQ_{it} + \alpha_6 PC\_EM_{it} + \alpha_7 PC\_LQ_{it}$$
$$+ \alpha_8 LQ\_after\_EM_{it} + \alpha_9 Year\_dummies_t + \mu_i + \varepsilon_{it} \quad (4)$$

, where Y_{it} - dependent variable: log sales, log labor productivity, log employment; Y_{it-1} Y_{it-2} - its lagged values (one period and two periods back); PC_{it} - dummy for being PC: 0 - when a firm is not PC, 1 - from the year a firm becomes PC, i.e. a CEO or a member of an executive board becomes a member of parliament or a top executive at the federal, regional, or municipal level, and on; EM_{it} - dummy for being EM: 0 - if a firm is not under EM, 1 - if a firm is under EM, i.e. EM_{it} is 1 from the year when EM is initiated till the year when EM ends[30]; LQ_{it} - dummy for being LQ: 0 - if a firm is not under LQ, 1 - from the year when LQ was initiated and on[31]; $PC\_EM_{it} = PC_{it} \cdot EM_{it}$ - dummy for PC EM: 1 - if EM firm is PC, 0 - otherwise; $PC\_LQ_{it} = PC_{it} \cdot LQ_{it}$ - dummy for PC LQ: 1 - if LQ firm is PC, 0 - otherwise (PC firms are likely to be large ones and, therefore, longer stay under observation of the RERLD, so that we may observe the complete "fall" in their performance under LQ); $LQ\_after\_EM_{it}$ - dummy for being LQ after EM (EM firms might be large and, therefore, stay under observation longer so we may capture the complete "fall").

Coefficient by a dummy variable in this specification should be interpreted as an approximation of a percentage change in an outcome variable that follows dummy change.

The choice of a number of lags in specifications for the dynamic panels was made based on Arellano-Bond test that average autocovariance in residuals of a certain order is 0[32].

The first column of Table 5 reports estimation results for log sales. The coefficient of PC EM is insignificant. In addition, EM dummy is also insignificant. The first column of Table 6 reports results of estimation for log labor productivity. In general, estimates exhibit the same pattern as in log of sales equation. Again, dummies for PC EM are irrelevant for labor productivity. Therefore, the third hypothesis about effects of PCs on bankruptcy outcomes is

---

[30]While composing the data set for EM firms we made the assumption that if firms do not go into LQ (that provides us with the explicit year when EM ends) then EM is assumed to last for two years. Two years is the general duration for EM, but in the case of "socially-important" firms the duration can be up to 10 years (law 1998) or 3 years (law 2002).

[31]There is no obligatory official publications upon the completion of LQ. Here we assumed that firms get closed if LQ is initiated. However, in practice, firms can escape closure by singing a voluntary settlement with creditors.

[32]All regressions are AR(2) processes.

rejected, i.e. PC EM does not matter for EM performance of firms.

Interestingly, we get negative robust sign for PCs alone in case of log labor productivity: 15% average drop in labor productivity compared with non PC firms. Important to note, that EM itself does not bring any efficiency improvements in terms of log sales and log labor productivity. This result strongly contradicts the legislative goal of EM: restructuring and solvency restoring.

The bailout in the key story led to the increase in efficiency: growth in labor productivity and sales. According to the estimation results, "direct" PCs, in general, are irrelevant for the efficiency-enhancing EM. At the same time, efficiency might increase, for instance, as a consequence of a bailout. Therefore, in our case the bailout might be just a consequence of being a "socially-important" (a company-town) firm, rather than PC EM.

Finally, results for log employment are reported in the first column of Table 7. According to the forth hypothesis we expect to find irrelevance of "direct" PCs for employment cuts and nonnegative effect of EM. Indeed, PC EM is insignificant.

Results in Table 7 can be attributed to the fact that EM might be imposed under specific condition of no employment cuts, whereas non bankrupt firms can adjust employment more freely, and LQ firms naturally cut it. Therefore, the forth hypothesis is not rejected: EM has nonnegative effect and "direct" PCs are irrelevant for employment. This estimation goes in line with the politicians-and-firms story: EM firms preserve employment thereby impairing labor productivity. PC EM firms are not different from their non PC counterparts.

The official version of the key anecdote stresses as a success the ability of the firm to prevent drop in employment. Interestingly, it is also pointed out that the foremost EM's goal was to prevent employment cuts.

5.3   Robustness checks

Robustness checks were performed for the model's specifications, different sub-samples, winsorized at 1% and 99% financial ratios[33], and different definitions of explanatory variables. All results are robust to winsorized at 1% and 99% financial ratios.

The fixed effects panel estimation with clustering on firms' id as explanatory variables included: PC dummy, EM dummy, LQ dummy, PC EM dummy (or alternatively PC before

---

[33]To obtain winsorized sample at 1% and 99% we shift all the observations beyond 1% and 99% to the 1- and 99- percentile respectively.

EM and PC after EM), PC LQ dummy, LQ EM dummy, lagged log sales (or alternatively log employment), lagged log of leverage, lagged log of current liquidity, lagged log of cash flows, lagged log of tax arrears to total assets ratio, lagged log of trade arrears to total assets ratio, lagged log of wage arrears to total assets ratio, year dummies. In other words, we include all available controls as for the Cox's estimation and log sales (log employment).

All results that are related to our hypotheses testing are robust: PC EM are irrelevant for the EM performance; EM has nonnegative effect on employment. Results are also robust if we consider the sub-sample of only non bankrupt and externally managed firms. This results are reported in Tables 5-7.

Insignificant result for PC EM might be driven by the fact that PCs that emerged before initiation of EM are more continuation-biased: have positive effect; and PCs that emerged after initiation of EM are more expropriation-biased: have negative effect. To capture this possibility we include dummies for PC before EM and PC after EM. Tables 5-7 report estimation results: no significant effect is found.

Multinomial logit regressions for each year and pooled set demonstrate significant and correct-sign results confirming different effects of PCs on initiation of EM and LQ. However, results are not that systematic for different years. The simple MNR procedure for sales, employment, and labor productivity after adjustment for overall trend in the economy does not reject our conclusions.

6   Conclusion

Our main finding is that political connections indeed matter for the timing of liquidation but that they are irrelevant for the timing of external management. The results do not reject the hypothesis that externally managed firms protect local employment, thereby impairing labor productivity. This result, it should be noted, is obtained irrespective of whether or not the externally managed firm has "direct" political connections or not. This evidence is in line with the politicians-and-firms story.

Thus, the estimation results have specified our simplified hypothetical story. Politically connected firms avoid liquidation and are indifferent to external management. This may be a sign of captured courts (see Lambert-Mogiliansky et al. 2003). Furthermore, politically connected firms neither restructure nor get bailed out under external management. Moreover, external management prevents employment cuts, irrespective of the presence of "direct" political con-

nections. Therefore, in general, politically connected firms utilize the bankruptcy procedure to forward various aims except obtaining a bailout, e.g. debt cancelling, employment protection or ownership change. Moreover, nonparametric robustness checks do not reject the hypothesis that politically connected externally managed firms even experience decreases in sales and labor productivity.

Some limitations of our empirical investigation should be mentioned. We implicity assume that political connections are persistent, that is, that the "political connectedness" is persistent over time for each firm. Thus, a firm defined to be politically connected from the year in which the first top manager is elected and on. Furthermore, the quality of balance sheet data frequently rises concerns in empirical studies: some taxable value often seems underreported. In our case, however, we argue that the sales figures that we are using are not under the threat of underreporting since they are reported "net of" all taxes. However, firms may want to conceal true figures from their competitors. There is a different bankruptcy regime (set of peculiarities at each bankruptcy stage) for large firms that have high employment. We do take account of different regimes[34] as we employ fixed effects panel estimation. Unfortunately, we are not able to trace firm movements in between the categories, e.g. from the "not socially-important" category to the "socially-important" one.

As a concluding remark, I outline two potential directions of further research, promoting the understanding of how bankruptcy outcomes depend on the level (city, regional, federal) of political connections and how political connections affect the external management term. The external management term is an interesting empirical issue as the decision to impose external management induces a selection bias, since decision to enter external management is not random. In order to estimate the model, one needs to account for this selection bias at the first stage (Heckman-like model) and to apply the Cox's proportional hazards at the second stage.

This paper contributes to the empirical literature on capture of judiciary and to the literature attempting to estimate the value of political connections.

---

[34]Natural monopolies and strategic firms also have their own regimes.

7 Bibliography

[1] Berglof, Erik, Patrick Bolton, Sergei Guriev, and Ekaterina Zhuravskaya, 2006, "Corporate Finance in Emerging Market Economies". In Bourguignon, Francois, and Pleskovic, Boris, ed. Beyond Transition. Proceedings of the 18th ABCDE, World Bank.

[2] Bonne, Peter and Denis Rodionov, 2002, "Rent Seeking in Russia and the CIS", Brunswick UBS Warburg, Moscow.

[3] Claessens, Stijn, and Leora F. Klapper, 2002, "Bankruptcy Around the World: Explanations of its Relative Use", World Bank Policy Research Working paper No. 2865, Worldbank: Washington DC, July 2002.

[4] Dewatripont, Mathias and Jean Tirole, 1999, "Advocates", The Journal of Political Economy, vol. 107, no.1, pp. 1-39.

[5] Doing Business in 2005. Removing Obstacles to Growth. A copublication of the World Bank, the International Finance Corporation, and Oxford University Press.

[6] Faccio, Mara, John J. McConnell, and Ronald W. Masulis, 2005, "Political connections and corporate bailouts", forthcoming in the Journal of Finance.

[7] Faccio, Mara, 2006, "Politically connected firms", American Economic Review, vol.96(1), pp. 369-86.

[8] Faccio, Mara, David C. Parsley, 2002, "Sudden deaths: Taking stock of political connections", Working paper, Vanderbilt University.

[9] Fisman, Raymond, 2001, "Estimating the Value of Political Connections", The American Economic Review, vol.91(4), pp. 1095-102.

[10] Glaeser, Edward, Jose Scheinkman, and Andrei Shleifer, 2002, "Injustice and Inequality", Working paper.

[11] Guriev, Sergei and Andrei Rachinsky, 2005, "The Role of Oligarchs in Russian Capitalism", Journal of Economic Perspectives, vol. 19(1), pp.131-50.

[12] Hellman, Joel, Jones Geraint, and Daniel Kaufmann, 2003, "Seize the state, seize the day: state capture and influence in transition economies", Journal of Comparative Economics, vol.31, pp.751-73.

[13] Hendley, Kathryn, 2004, "Enforcing Judgements in Russian Economic Courts", Post-Soviet Affairs, vol.20(1), pp.46-82.

[14] Khwaja Asim, Atif Mian, 2005, "Do lenders favor politically connected firms? Rent provision in an emerging financial market", Working paper, University of Chicago.

[15] Lambert-Mogiliansky, Ariane, Konstantin Sonin, and Ekaterina Zhuravskaya, 2003, "Capture of bankruptcy: Theory and Russian Evidence", CEFIR, Working paper.

[16] Megginson, William, Robert Nash, and Matthias Van Randenborgh, 1994, "The Financial and Operating Performance of Newly Privatized Firms: An International Empirical Analysis", Journal of Finance, vol. 49(2), pp. 403-52.

[17] Shleifer, Andrei, Robert W. Vishny, 1994, "Politicians and Firms", The Quarterly Journal of Economics, vol. 109, pp. 995-1025.

[18] Shvets, Julia, 2005, "Selection of judges and law enforcement", Working paper, LSE and Cambridge University.

[19] Shvets, Julia, 2003, "Judicial bias in Russian commercial courts", Working paper, LSE.

[20] Slinko, Irina, Eugeny Yakovlev, and Ekaterina Zhuravskaya, 2003, "Institutional Subversion: Evidence from Russian Regions", CEFIR, Working paper.

[21] The World Bank, 2000, "World Business Environment Survey", http://www.ifc.org/ifcext/economics.nsf/Content/ic-wbes

[22] Sonin, Konstanin, 2003, "Why the rich may favor poor protection of property rights", Journal of Comparative Economics, vol.31, pp. 715-31.

[23] Tompson, William, 2004, "Reforming Russian Bankruptcy Law", Briefing note, The Royal Institute of International Affairs. Russia and Eurasia Program.

[24] Wooldridge, J.(2002) Econometric Analysis of cross section and panel data, MIT press, 2002.

8 Appendices

Figure 1. Number of external management procedures and their outcomes
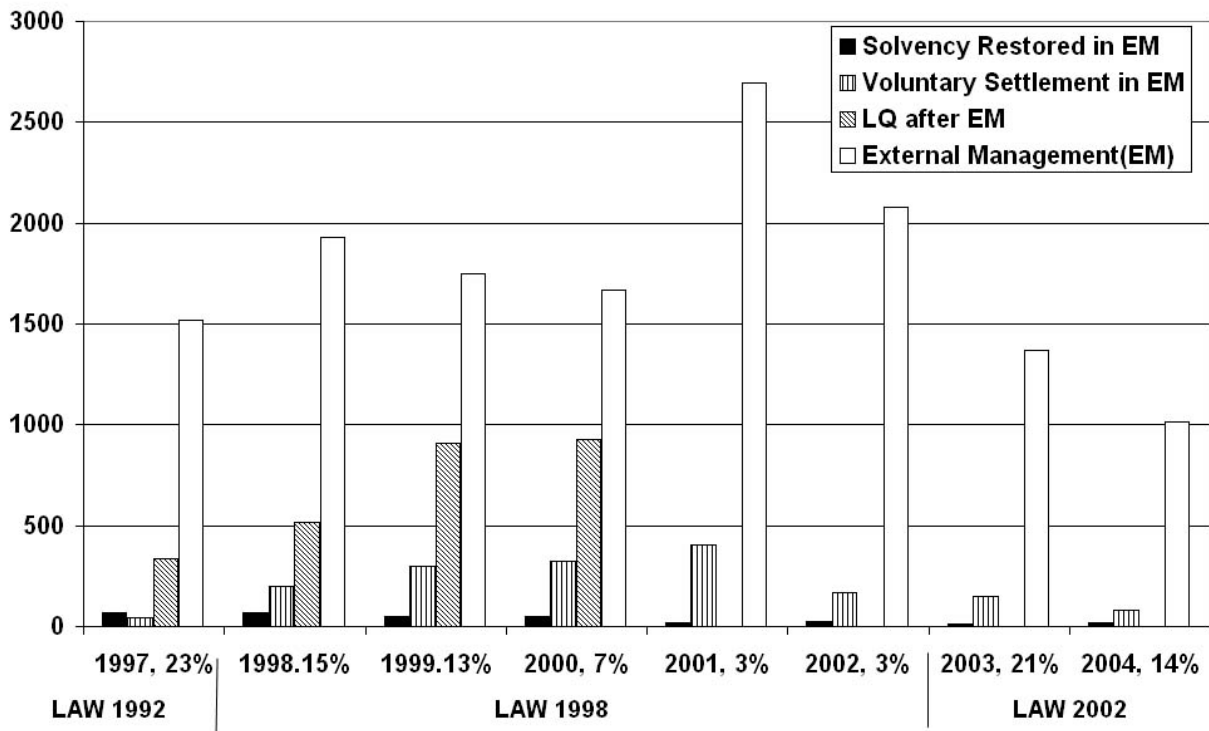
Note: Percentages by the years are the shares of externally managed firms out of all bankrupt firms that year; there is no official statistics available for a number of firms that were liquidated after external management starting from 2001.

Table 1. Data set composition.

year	PC firms			BNKR initiated: PC firms			BNKR initiated: EM firms		
	NOT PC	PC	Total	NOT PC	PC before	PC after	NOT EM	EM	Total
1995	3155	164	3319	14	0	7	0	21	21
1996	3982	246	4228	48	1	3	1	51	52
1997	3460	344	3804	205	14	18	103	134	237
1998	3214	438	3652	609	22	24	369	286	655
1999	3186	560	3746	28	7	3	0	38	38
2000	3070	600	3670	110	4	2	94	22	116
2001	2752	612	3364	179	11	2	163	29	192
2002	2520	614	3134	261	15	2	242	36	278
2003	712	542	1254	15	5	0	11	9	20
2004	658	536	1194	17	2	0	12	7	19
Total	26709	4656	31365	1486	81	61	995	633	1628

Note: 'PC firms': NOT PC - not politically connected firms; PC - politically connected firms; 'BNKR initiated: PC firms': NOT PC - not politically connected firms where bankruptcy is initiated in given year; PC before - firms that are politically connteded before bankruptcy initiation in given year ; PC after - firms that become politically connteded after bankruptcy initiation in given year ; 'BNKR initiated: EM firms': NOT EM - liqidation initiated in given year (without EM preceding LQ); EM - external management initiated in given year.

Table 2. Summary statistics.

	Variable	Mean	Std. Dev.	Min	Max	Observations
NON BNKR						
	PC	26021	0.17	0.37	0	1
	Leverage	9557	-0.98	0.95	-11.41	13.11
	Current liquidity	9551	-0.05	0.80	-13.98	6.92
	Cash flows	10604	0.07	0.54	-10.50	8.12
	Sales growth	14865	-0.15	0.79	-3.90	5.96
	Labor product. growth	14755	-0.06	0.75	-4.33	7.47
	Employment growth	14765	-0.09	0.37	-4.82	2.45
	Tax arrears	7900	-2.96	1.67	-14.10	7.40
	Trade arrears	7870	-2.31	1.26	-12.64	7.14
	Wage arrears	7752	-4.75	1.56	-14.70	4.57
EM						
	PC	1460	0.10	0.31	0	1
	Leverage	797	-0.72	0.76	-3.15	5.97
	Current liquidity	796	-0.54	0.68	-3.25	1.99
	Cash flows	836	-0.08	0.40	-3.63	2.88
	Sales growth	1048	-0.17	0.88	-3.83	4.03
	Labor product. growth	1035	0.01	0.82	-3.43	4.87
	Employment growth	1038	-0.18	0.39	-3.16	1.35
	Tax arrears	775	-1.97	1.30	-7.48	12.38
	Trade arrears	773	-2.03	1.23	-8.91	13.14
	Wage arrears	775	-4.40	1.47	-9.12	12.20
LQ						
	PC	3884	0.04	0.20	0	1
	Leverage	445	-0.36	0.90	-3.60	4.77
	Current liquidity	445	-0.70	1.00	-5.69	1.91
	Cash flows	484	-0.13	0.76	-13.44	1.77
	Sales growth	835	-0.34	1.23	-3.66	5.02
	Labor product. growth	767	0.09	1.30	-3.88	7.49
	Employment growth	769	-0.45	0.66	-4.76	1.68
	Tax arrears	431	-2.05	1.75	-11.04	6.63
	Trade arrears	437	-1.85	1.30	-6.45	5.35
	Wage arrears	427	-4.05	1.76	-11.09	4.62

Note: Mann-Whitney two-sample statistic confirms that pairwise difference in distributions between non bankrupt, externally managed, and liquidated firms in most of ratios is significant at 5%, except for insignificant difference between non bankrupt firms and liquidated in labor productivity growth; non bankrupt and externally managed in sales growth; externally managed and liquidated in cash flows, labor productivity growth, and tax arrears.

Figure 2A. Survivor function estimator for bankruptcy of politically connected and not politically connected firms
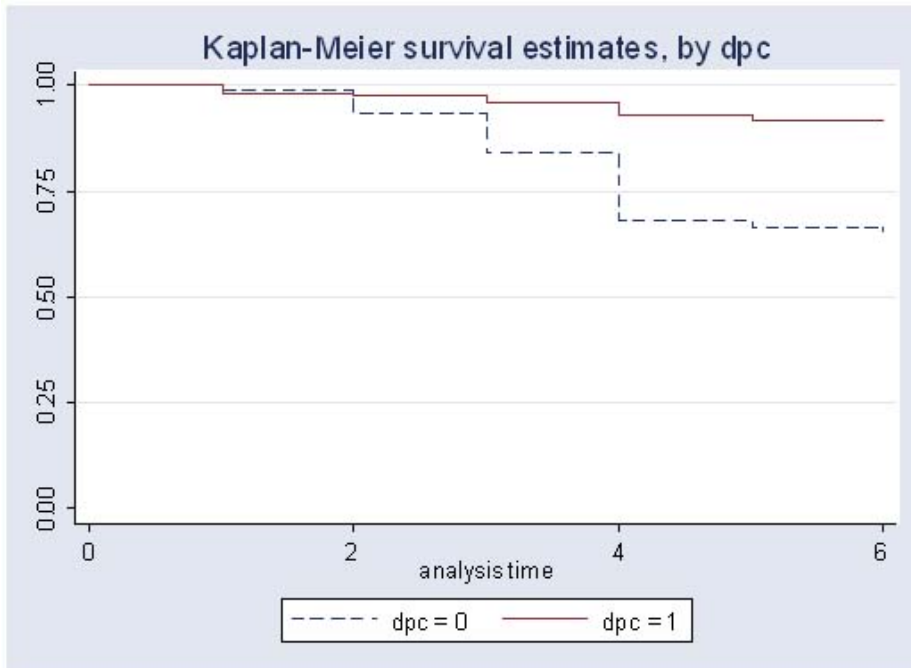
Figure 2B. Survivor function estimator for bankruptcy of politically connected and not politically connected firms adjusted for leverage
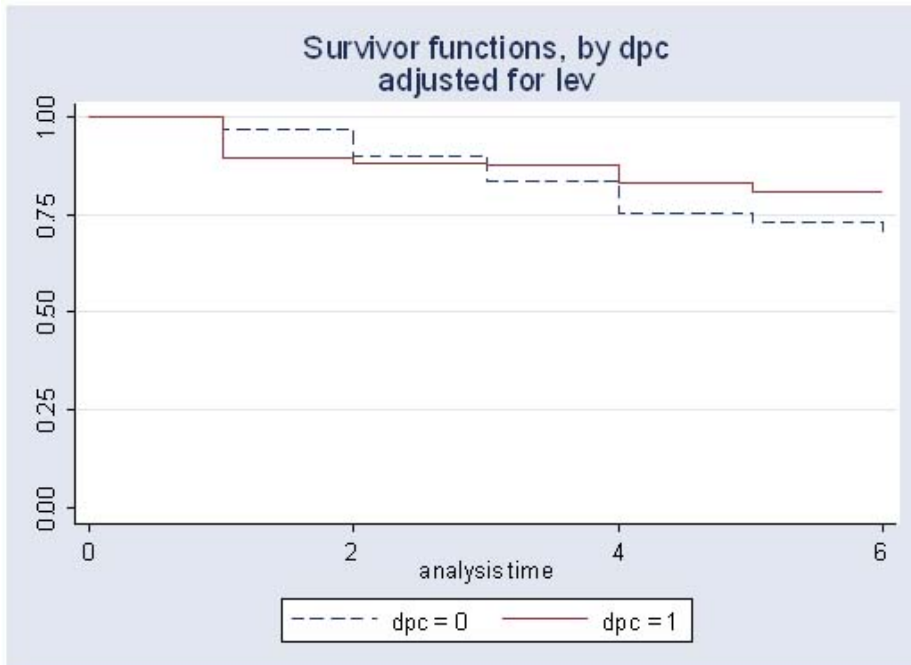
Note: dpc equals 1 if a firm is politically connected, 0 otherwise.

Table 3. Summary statistics of pre-EM and pre-LQ firms.

Variable	Obs	Mean	Std. Dev.	Min	Max
PRE-EM					
PC	820	0.12	0.32	0	1
Leverage	509	-0.80	0.85	-11.41	1.23
Current liquidity	508	-0.21	0.69	-2.82	3.54
Cash flows	519	0.01	0.24	-1.20	1.37
Labor prod. growth	445	-0.05	0.65	-4.33	2.78
Employment growth	445	-0.07	0.31	-1.94	1.68
Tax arrears	509	-2.34	1.42	-11.41	4.43
Wage arrears	504	-4.42	1.44	-10.71	3.55
Trade arrears	504	-2.10	1.05	-5.39	5.86
PRE-LQ					
PC	6267	0.03	0.17	0	1
Leverage	1908	-0.67	0.88	-6.82	7.52
Current liquidity	1905	-0.35	0.82	-5.20	6.47
Cash flows	1990	-0.05	0.60	-7.42	8.12
Labor prod. growth	3289	-0.06	0.85	-4.18	5.73
Employment growth	3289	-0.15	0.42	-3.95	2.00
Tax arrears	1904	-2.15	1.61	-11.27	7.40
Wage arrears	1856	-4.38	1.54	-11.43	4.57
Trade arrears	1881	-2.03	1.38	-8.40	6.97

Note: Mann-Whitney two-sample statistic rejects sameness of distributions of pre-EM and pre-LQ firms' characteristics at 1% for PC, Leverage, Current Liquidity, Employment growth, and Tax arrears.

Table 4A. Comparison of characteristics of PC firms: low and high category for political 'monopoly'.

Variable	Obs	Mean	Std. Dev.	Min	Max
Low political 'monopoly'					
Leverage	1013	-0.83	0.76	-3.65	1.71
Current liquidity	1013	0.12	0.78	-3.67	2.90
Cash flows	1026	0.08	0.88	-9.92	2.58
Labor prod. growth	1174	0.09	0.88	-3.81	7.47
Employment growth	1181	-0.09	0.48	-4.82	1.90
Tax arrears	1007	-3.33	1.66	-12.44	7.39
Wage arrears	984	-5.04	1.68	-13.50	4.00
Trade arrears	1011	-2.48	1.32	-11.20	6.07
High political 'monopoly'					
Leverage	929	-0.70	0.77	-6.19	2.81
Current liquidity	929	0.07	0.80	-4.09	4.15
Cash flows	941	0.09	0.83	-10.50	6.69
Labor prod. growth	975	0.06	0.75	-3.68	3.99
Employment growth	977	-0.07	0.43	-4.27	2.45
Tax arrears	924	-3.34	1.74	-12.45	4.17
Wage arrears	898	-4.88	1.77	-14.55	2.30
Trade arrears	927	-2.08	1.21	-9.51	4.36

Note: Mann-Whitney two-sample statistic rejects sameness of distributions of high and low political 'monopoly' at 1% for Leverage, Cash flows, and Trade arrears.

Table 4B. Probit estimates of "demand" for PC.

Years	1999	2000	2001	2002	2003	2004
	PC	PC	PC	PC	PC	PC
Leverage	0.06	0.10	0.23	0.02	0.03	0.05
	(0.09)	(0.10)	(0.12)*	(0.10)	(0.14)	(0.15)
Current liquidity	0.04	0.12	0.21	0.09	0.12	0.12
	(0.08)	(0.09)	(0.10)**	(0.10)	(0.12)	(0.13)
Cash flows	0.21	0.31	0.23	0.11	-0.11	-0.19
	(0.15)	(0.18)*	(0.21)	(0.27)	(0.05)**	(0.09)**
Labor product. growth	0.04	0.07	-0.20	-0.06	0.02	0.03
	(0.07)	(0.07)	(0.09)**	(0.09)	(0.09)	(0.17)
Employment growth	-0.13	-0.11	-0.31	-0.02	0.00	0.41
	(0.12)	(0.13)	(0.14)**	(0.16)	(0.15)	(0.25)
Tax arrears	-0.26	-0.23	-0.22	-0.16	0.05	0.02
	(0.04)***	(0.04)***	(0.04)***	(0.04)***	(0.03)	(0.04)
Wage arrears	-0.03	-0.03	-0.02	-0.05	-0.10	-0.13
	(0.04)	(0.03)	(0.04)	(0.04)	(0.05)*	(0.06)**
Trade arrears	0.05	0.11	0.03	0.02	-0.03	0.01
	(0.05)	(0.05)**	(0.06)	(0.05)	(0.06)	(0.06)
Political "monopoly"	-0.16	-0.24	-0.30	-0.30	-0.38	-0.51
	(0.09)*	(0.09)***	(0.10)***	(0.10)***	(0.12)***	(0.13)***
Constant	-1.68	-1.31	-1.23	-1.33	-0.71	-0.85
	(0.26)***	(0.24)***	(0.26)***	(0.29)***	(0.32)**	(0.38)**
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
F-stat. for IV	3.18	7.23	9.12	8.75	9.48	14.72
Observations	1116	1060	805	719	482	426

Note: Robust standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. Categorized political 'monopoly' is an instrument.

Table 4C. Cox's proportional hazards model for instrumented PCs.

Dependent variable is the hazards ratio

Event:	BNKR	EM	LQ
Instrumented PC	0.09	0.67	0.02
	(0.01)***	(0.74)	(0.01)***
Leverage	0.86	0.61	1.01
	(0.54)	(0.21)	(0.97)
Current liquidity	0.59		0.56
	(0.00)***		(0.00)***
Cash flows	0.62	0.75	0.57
	(0.00)***	(0.05)*	(0.00)***
Labor product. growth	0.98	0.86	1.02
	(0.87)	(0.37)	(0.89)
Employment growth	0.68	0.71	0.71
	(0.07)*	(0.08)*	(0.23)
Tax arrears	1.27	1.30	1.25
	(0.04)**	(0.17)	(0.16)
Wage arrears	0.94	1.13	0.86
	(0.32)	(0.29)	(0.06)*
Trade arrears	1.23	1.47	1.16
	(0.06)*	(0.07)*	(0.26)
Industry dummies	No	No	No
Observations	3216	3216	3216

Note: Robust p values in parentheses * significant at 10%; ** significant at 5%; *** significant at 1%

Table 5. Dynamic panel with fixed effects for log sales.

	ALL FIRMS	NON BNKR, EM	ALL FIRMS	NON BNKR,EM
	ln(sales)	ln(sales)	ln(sales)	ln(sales)
PC	-0.03	-0.15	-0.04	-0.15
	(0.06)	(0.06)**	(0.06)	(0.06)**
EM	0.05	0.09	0.05	0.09
	(0.06)	(0.06)	(0.06)	(0.06)
LQ	-0.24	-0.29	-0.24	-0.29
	(0.08)***	(0.11)***	(0.08)***	(0.11)***
PC EM	0.09	0.14		
	(0.14)	(0.15)		
PC before EM			0.09	0.11
			(0.14)	(0.14)
PC after EM			0.11	0.18
			(0.25)	(0.28)
PC LQ	-0.11	-0.77	-0.11	-0.77
	(0.27)	(0.32)**	(0.27)	(0.32)**
LQ after EM	-0.13		-0.13	
	(0.13)		(0.13)	
Two lags for ln(sales)	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes
Observations	10341	6095	10341	6095
Number of firms	2637	1320	2637	1320

Note: Robust standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. The same specification is applied for: complete set of firms; non-bankrupt and externally managed ones.

Table 6. Dynamic panel with fixed effects for log labor productivity.

| | ALL FIRMS | NON BNKR, EM | ALL FIRMS | NON BNKR,EM |
	ln(lprod)	ln(lprod)	ln(lprod)	ln(lprod)
PC	-0.15	-0.14	-0.15	-0.14
	(0.06)**	(0.06)**	(0.06)**	(0.06)**
EM	0.06	0.05	0.06	0.05
	(0.07)	(0.07)	(0.07)	(0.07)
LQ	0.15	0.05	0.15	0.05
	(0.09)*	(0.14)	(0.09)*	(0.14)
PC EM	0.21	0.20		
	(0.17)	(0.17)		
PC before EM			0.24	0.23
			(0.16)	(0.16)
PC after EM			0.16	0.16
			(0.33)	(0.34)
PC LQ	0.28	-0.23	0.28	-0.23
	(0.33)	(0.42)	(0.33)	(0.42)
LQ after EM	-0.17		-0.17	
	(0.16)		(0.16)	
Two lags for ln(lprod)	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes
Observations	10172	5957	10172	5957
Number of firms	2627	1316	2627	1316

Note: Robust standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. The same specification is applied for: complete set of firms; non-bankrupt and externally managed ones.

Table 7. Dynamic panel with fixed effects for log employment.

	ALL FIRMS ln(emp)	NON BNKR, EM ln(emp)	ALL FIRMS ln(emp)	NON BNKR,EM ln(emp)
PC	0.02	-0.02	0.01	-0.03
	(0.03)	(0.03)	(0.03)	(0.03)
EM	0.04	0.06	0.04	0.06
	(0.03)	(0.03)**	(0.03)	(0.03)**
LQ	-0.37	-0.35	-0.37	-0.35
	(0.04)***	(0.07)***	(0.04)***	(0.07)***
PC EM	-0.03	-0.05		
	(0.06)	(0.07)		
PC before EM			-0.03	-0.09
			(0.10)	(0.12)
PC after EM			-0.02	0.01
			(0.05)	(0.05)
PC LQ	-0.35	-0.50	-0.35	-0.49
	(0.21)*	(0.28)*	(0.21)*	(0.28)*
LQ after EM	-0.00		-0.00	
	(0.08)		(0.08)	
Two lags for ln(emp)	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes
Observations	10184	5968	10184	5968
Number of firms	2630	1318	2630	1318

Note: Robust standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. The same specification is applied for: complete set of firms; non-bankrupt and externally managed ones.

Figure 3A. MNR analysis results for external management

VAR	Observations	m_b> m_a	m_b < m_a	m_b != m_a
Sales	321			NO CHANGE
Employment	321	DECREASE		NO CHANGE
Labor productiviy	309			NO CHANGE
Leverage	126		INCREASE	NO CHANGE

Figure 3B. MNR analysis results for external management

when a firm was politically connected before the procedure

VAR	Observations	m_b> m_a	m_b < m_a	m_b != m_a
Sales	29	DECREASE		NO CHANGE
Employment	29	DECREASE		NO CHANGE
Labor productiviy	28	DECREASE		NO CHANGE
Leverage	22		INCREASE	NO CHANGE

Figure 3C. MNR analysis results for external management

when a firm was not politically connected before the procedure

VAR	Observations	m_b> m_a	m_b < m_a	m_b != m_a
Sales	254			NO CHANGE
Employment	254	DECREASE		NO CHANGE
Labor productiviy	250			NO CHANGE
Leverage	22		INCREASE	NO CHANGE

Note: m_b - mean before external management was imposed; m_a - mean after initiation of external management; cell is highlighted if hypothesis is not rejected at 5% significance level.