

The Effect of Political Connection on Firm Performance: Evidence from Russia

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Abstract

The influence of political connections on companies' operations is one of the most critical aspects of corporate governance, especially for developing countries. However, in the studies, there are two opposing points of view on the direction of the influence of political connections on the performance of companies.

On the one hand, the rent-seeking theory and the resource dependence theory imply a positive influence of political ties on the performance of companies by facilitating interaction with underdeveloped institutions or gaining a competitive advantage due to access to limited political resources. On the other hand, the theory of the agency problem reports on the negative influence of politically connected persons in management on the activities of companies, in connection with the use of the resources of affiliated companies by a politician to achieve his goals. Both of these points of view are widely represented in the literature. Thus, using the example of various countries, researchers find empirical evidence in support of these two opposing points of view.

Based on panel data for 1999 - 2019, this study examines the impact of political ties on the performance of 1,148 Russian companies. In this paper, during the primary analysis, we find a positive effect of political ties on the return on assets, equity, and investments on Russian companies' example. However, in additional analysis, we find the ambiguous influence of explicit and implicit political ties on the primary sample and, secondly, the negative influence of political ties on the sample consisting of the largest Russian companies. In this regard, this paper proposes an explanation of the ambiguous influence of political ties based on their openness or, on the contrary, closedness from society. This paper also shows an increase in leverage and the share of long-term debt capital of politically related companies. Thus, this work shows that access to debt can be one of the main channels for companies to benefit from political connections.

Moreover, this study examines the spread of political affiliation of Russian companies over time, depending on the industry and in the context of geographic location. The paper also shows an increase in the prevalence of political ties among Russian companies by establishing an autocratic political regime. However, this study did not find a statistically significant effect of political connections on the amount of taxes paid by a company.

Keywords: political connection, firm performance, return on assets, return on equity, return on investment, leverage, maturity, tax ratio.

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgment), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signed: Polina Pishchenko

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Chapter 1. Introduction

The composition of the board of directors plays a decisive role in making corporate decisions both in the field of the company's development strategy and in determining the financial policy on which the results of the company's activities directly depend. Thus, the presence of a politically connected person on the board of directors can lead to both an increase in the company's profits due to the receipt of various preferences and benefits from the use of relations with state structures, which, according to the theory of dependence on resources, can replace underdeveloped institutions in developing economies (Krueger, 1974) by obtaining competitive advantages according to the theory of resource dependence (Pfeffer, Salancik, 1978). On the other hand, however, the presence of a politically affiliated person can also lead to a deterioration in the firm's performance by aggravating the agency problem (Jensen, Meckling, 1976).

Additionally, Dinç (2005) unequivocally points out the need to consider the political environment and the influence of organisations' political connections to study the performance of financial systems. Moreover, the widespread of politically connected persons on the boards of directors of companies are noted by Faccio (2006) in a study where it shows the presence of political ties, determined through the presence of an acting official or an official on the board of directors in the past, in companies in 35 countries out of 47 considered. Furthermore, she shows that such companies also represent nearly 3% of the world's publicly traded corporations. In addition, Goldman et al. (2013), considering American firms, citing political ties as one of the main ways to increase the value of companies. Furthermore, researchers have increasingly interested in this problem in recent years in the academic environment. For example, according to data on scientific publications provided by the web of science, in the last decade, the number of studies considering this problem has increased by about 14 times and by about 6.5 times according to dimensions.^{1,2}

Nevertheless, the direction of influence of political ties is contradictory. While some studies find a positive impact of political connections on company performance (Wang et al., 2019b; Liu et al., 2019; Halford & Li, 2020; Lee et al., 2018), other studies show the negative impact of political connections (Uddin, 2016; Wu et al., 2012b; Young & Tan, 2018; Schweizer

¹ We consider the number of scientific publications provided by the resource <https://www.webofscience.com/wos/woscc/analyze-results/477e81a0-7851-4609-b621-9c3736f903a2-07446f20> at the request of "Political connection and firm performance". Also, the data is presented in the appendix.

² https://app.dimensions.ai/discover/publication?search_mode=content&search_text=Political%20connection%20and%20firm%20performance&search_type=kws&search_field=text_search

et al., 2019). In addition to the ambiguous direction of the influence of political ties, there is an uneven distribution among countries. Thus, according to studies, there is a greater spread of the business-state relations in countries with a high degree of state regulation of the economy, a high level of corruption in the country and underdeveloped institutions and market mechanisms (Faccio, 2006, Gehlbach et al., 2010, Tu et al., 2013). Additionally, according to Muttakin (2015), one can observe the predominance of politically connected companies in developing countries. However, as Muttakin (2015) notes, there is a lack of research on the impact of political ties in emerging economies despite the growing importance of such economies. In addition, Khwaja and Mian (2005) argue the tendency of people to use political connections in conditions of economic instability, which is also quite common in developing countries.

Considering the above facts, Russia seems to be one of the most suitable countries to assess the problem because of the combination of a high degree of corruption, underdeveloped legal and institutional systems and underdeveloped market mechanisms. Also, since 2000, the Russian system of political governance has gradually shifted from a democratic to an autocratic regime, which should also contribute to a more substantial influence of political ties on the activities of firms (Saeed et al., 2016). Furthermore, there is a contradictory direction of state policy in this area in Russia. For example, according to anecdotal evidence in Russia, there was a twofold change in the degree of government intervention in corporate governance. First, Dmitry Medvedev's presidency was marked by the massive withdrawal of officials from the boards of directors. Then, in January 2014, during the third presidential term of Vladimir Putin, the government announced a "counter-reform" of corporate governance: it was decided to return managers from the state apparatus to their previous positions on corporate boards of directors. Also, in the study, as mentioned earlier by Faccio (2006), Russia appears to be the country with the most significant number of politically connected companies, which according to its study, represent just over 86% of the total market capitalisation.

However, there is a lack of research on the influence of political ties conducted on the example of Russian companies.

This study uses a unique database of 1148 companies between 1999 and 2019. The focus of this study is on several key issues:

1. How does a politically connected person on the board of directors affect the company's balance sheet, the overall level of debt and long-term borrowings, and the amount of taxes paid by the company?

2. How common are politically connected companies in Russia?

To answer those questions, in this study, we use several indicators based on companies accounting information:

- a) The ROA, ROE and ROI are used to measure the performance of firms.
- b) Leverage and Maturity indicators are used to assess the capital structure and the level of borrowed funds.
- c) The Tax indicator is used to find the amount of taxes paid by the company.

This study shows a high prevalence of politically affiliated companies of about 48% and a significant increase in the political affiliation of companies since 2000. Also, this study provides empirical evidence of the positive influence of political ties on the company's performance. This study also shows a higher level of leverage from politically related companies. However, no statistically significant effect of political affiliation on the amount of taxes paid by the company was found. This paper also examines the impact of different political ties, such as political ties in the past and present and explicit and implicit political ties. In addition, in the process of additional research, this study reveals a negative impact of political connections on a sample of the largest Russian companies. Therefore, this work proposes an explanation of the inconsistency in the influence of political ties.

The rest of the study is organised as follows: the second part provides an overview of existing empirical research and the leading theories on the influence of political connections on firm performance. The third section presents hypothesis development. The fourth section is the methodology of this study, the description of dependent and control variables, and the construction of models for empirical analysis. Then, the fifth section describes the database used in this study and the results of descriptive statistics—the sixth section is the results of empirical research, the conclusion, and the list of used literature.

Chapter 2. The Literature Review

There are many studies in the area of influence of political connections on various aspects of the firm. Nevertheless, the research data can be divided into two groups. The first includes those articles that show the positive influence of political connections on the activities of firms.

2.1. The positive influence of political connection

2.1.1. Rent-seeking theory

Research showing the positive impact of political affairs often cites Kruger's rent-seeking theory in 1974. According to this theory, enterprises can use social institutions such as the state's power to increase their wealth by allocating existing resources without creating new wealth. Civilize et al. (2015) show that firms' political connections in transition economies can replace underdeveloped market mechanisms. In such an economic environment, political connections show a positive impact on a firm's performance. Wang et al. (2019b) found that return on assets, return on equity, and total factor productivity of politically connected firms increase after official visits. In addition, the authors note an overall improvement in corporate governance and a decrease in asymmetries between politically connected firms.

2.1.2 Resource dependence theory

Also, the benefit from political connections can be explained by the theory of resource dependence. According to this theory, politically connected firms gain access to limited political resources inaccessible to competitors and thus better cope with external uncertainty and shocks (Pfeffer & Salanchik, 1978). Therefore, the authors' concept is that firms are highly dependent on external forces: the government. Also, drawing on a resource-based approach (Barney, 1991) confirms that politically connected firms can use them to gain a competitive advantage, resulting in significant value of political capital for the company (Sun et al., 2011). From this point of view, the state can also be considered a source of uncertainty. Therefore, a political connection with the authorities is beneficial to eliminate this uncertainty (Pfeffer, 1972).

2.1.3. The benefits of political connections

Several channels can be identified to profit from their political connections in the existing literature.

Lee et al. (2018) study American politically affiliated companies during the 2008 crisis by looking at political ties regarding whether companies have investments in political action

committees. The authors found that politically connected firms can perceive such investments as insurance, hoping to receive support in times of financial distress. Lee et al. (2018) also show the dependence of the likelihood and effectiveness of investment in political action committees on the experience of companies in the area of political investment. Also, the authors point out that companies receive the expected benefit from these investments during a crisis, which can be expressed in the receipt of additional funds necessary to survive during the crisis. In addition, the benefits of regular political investment and lobbying for political action committees throughout electoral cycles can lead to risky but lucrative projects that turn into illiquid assets in times of crisis that require investments of limited company resources.

A similar conclusion is reached by He et al. (2019). The authors find that firms with political ties to the central government are more likely to recover after the crisis. However, the authors do not find the same pattern for companies with links to local governments. Their study also looks at the possible impact of political connections on involvement in the financial crisis. Considering political ties from this point of view, the authors note their limited effect on this situation. Dang et al. (2018) also confirm in their article that, during the presidency of President Mubarak, politically connected companies experienced fewer financial constraints and debt capital support at the height of the 2008 crisis. In addition, Halford and Li (2020) note that firms with politically minded executives and board members are less likely to file for bankruptcy. This link is also more evident for firms of high political importance, such as firms located in fluctuating states, in times of significant elections, and large employers.

Moreover, more affordable access to financial resources can be one of the channels to benefit from political connections. Based on their analysis, Claessens et al. (2008) cite this channel as the most crucial channel for reaping the benefits of being politically connected. Analysing the behaviour and performance of political companies after the elections, they find a significant increase in bank financing for such companies compared to politically unrelated firms. This argument is also supported by more recent research by Wang et al. (2019b). The authors consider the political connections of organizations from the point of view of their visits to government institutions. They find that such firms are generally inclined to obtain more bank loans and investment projects. In addition, He et al. (2019), examining Chinese firms from 1999 to 2015, showed that companies in distress could use political connections to increase debt financing.

In the same way, as in previous studies, the authors note an acceleration in the recovery of such firms from the crisis. Wang et al. (2019a) have reached a similar conclusion. The authors' research listed A-shares. They find a link between the internationalisation of firms and the political

connections of independent directors. The authors also note the different influences of political ties depending on the regions. Thus, the authors show that political ties significantly impact more or less ramified regions. Wang et al. (2019a) also associate this effect with the desire of firms to establish political ties due to the imperfection of the formal system. The authors note that informal institutions such as political ties increase in areas with less developed formal institutions. This assumption of the authors is also consistent with the theory of rent. Thus, firms with politically connected independent directors tend to use them to gain additional resources in smaller regions.

Firms can also gain more accessible access to equity finance, which can act as a channel for capitalising on political connections and easier access to debt finance. For example, Li and Zhou (2015), in their study of private IPOs, find a significant positive impact of political ties on firms' ability to obtain IPO approvals and significantly less regulatory scrutiny of such companies immediately before IPOs. Liu et al. (2019) also research Chinese enterprises. The authors get different results for government and non-government firms. In the context of deriving benefits from political ties, the authors show that this effect is typical only for non-state bidders. Liu et al. (2019) show that such firms are more likely to receive external financial support and use political connections to integrate vertically.

The next channel for firms to benefit from political ties may be through the possibility of obtaining more favourable tax regimes and debt financing. For example, Bliss et al. (2018) examine the relationship between Hong Kong firms and political connections and the cost of debt. The authors find that interest rates charged by lenders are higher for firms that are not politically connected. Thus, the cost of using borrowed funds for the politician of related firms decreases. Moreover, Khwaja and Mian (2005) show that the leverage of politically connected firms is 45 per cent higher. The authors conduct their research by looking at data on loans in Pakistan's emerging economy. The authors also argue that politically related firms have higher default rates. However, the existence of such a regime is observed only in state-owned banks. Wu et al. (2012a) analyse the effects of political ties on Chinese companies owned by private owners and state-owned firms. The authors find that politically connected private firms outperform publicly-owned firms and benefit from politically connected private firms through tax incentives. The authors also note the connection between the politicization of state-owned companies and excessive investment and related problems.

Lee et al. (2018) define political ties through the affiliation of the leadership of private Chinese companies to the ruling Communist Party and examine their impact on company performance in the context of the Chinese economy. Thus, the authors find the positive influence

of political ties on the activities of companies through the exploitation of mechanisms such as access to borrowed capital in private and public banks by politically connected companies. The authors note that this opportunity is provided to politically connected firms due to the weak development of the institutional environment. The authors provide evidence of a more significant influence of political ties in areas with less developed formal institutions. In addition to this, the Avtovs show greater confidence in the judicial and legal system, which testifies that political ties work better in a transitional economy. They also show the importance of political ties for private firms due to weak institutions to support market relations.

One of the channels to benefit from political ties can be direct support from the state, particularly getting politically connected firms more access to government contracts. Wu et al. (2012a) analysed the performance of Chinese companies for seven years, starting in 1999. The authors find that politically connected companies receive more government subsidies. It is also noted that politically connected firms have a higher market value than firms without political connections. More recent research from Chinese firms by Li and Zhou (2015) confirms that politically connected firms receive more government aid. In addition, the authors find that politically connected firms are more likely to receive government contracts. The authors also show that politically affiliated companies benefit from the state, expressed over the price to earnings per share.

Faccio et al. (2006) discussed firms' receipt of government aid. The authors analyse more than 400 firms in 35 countries, considering the likelihood of receiving government assistance. They find that politically connected companies are significantly more likely to receive government support, primarily when such aid from the World Bank or the International Monetary Fund is allocated to the countries' governments in which the firms are located. Goldman et al. (2013) examine the performance of American companies in the 1994 change of government. They find that changing control in the Senate and House of Representatives negatively affects companies associated with the losing party. As a result, such companies experience a significant reduction in government contracts. At the same time, firms with political ties to the winning party, on the contrary, receive a significantly higher number of purchase orders from the government. This link is supported by an earlier study by Agrawal and Knoeber (2001), which shows the relationship between company political ties and government orders. Also, in their research, the authors find a higher level of lobbying for politically connected companies.

In addition to receiving government aid and contracts, politically connected firms can also benefit from other government programs and initiatives. For example, Wang et al. (2019b) find

that more private, politically connected enterprises can access investment projects. Therefore, this group of studies shows a positive effect for companies from their political connections. This effect arises when the benefits from political ties prevail over the costs that companies can incur in connection with their presence. Thus, the benefits of companies can be expressed in an increase in its value, increased efficiency and higher stock returns (Claessens et al., 2008; Goldman et al., 2009; Faccio, 2009; Wang et al., 2019b).

2.1.4. Patterns of politically connected firms

It is also worth noting that there is a possibility of reverse causation. Politicians and government officials may initially favour more efficient companies for their purposes. Thus, some studies show the effect that the presence of political connections has on the activities of the firm but also what characteristics are more inherent in politically connected firms. For example, looking at political ties more globally, Boubakri et al. (2008) study firms in 41 countries. The authors find that politically connected firms are found more often in group cities in their study. This finding is consistent with Wang et al. (2019b), who found more politically connected firms in regions with high GDP growth rates. Also, Boubakri et al. (2008) find that politically connected firms are more likely to have higher leverage and operate in regulated sectors of the economy. In addition, the authors record a positive relationship between the presence of politically connected firms and the level of independence of the judiciary and political functionality. In addition, the authors show a positive relationship between the possibility of finding politically connected firms and residual state ownership and the term of office of executives.

Niessen and Ruenzi (2010), looking at the example of German politically connected enterprises, show that politically connected firms tend to be larger and less risky than non-politically connected firms. The authors also note that politically connected firms tend to have higher accounting scores but limited growth opportunities. Also, in their study, Wang et al. (2019b) draw on similar characteristics of politically connected firms. Previous researchers find that politically connected firms are larger and have better accounting records than before. In addition, the authors note the more powerful age of such companies. Also, such firms are distinguished by higher indicators of financial leverage.

2.2. The negative impact of political connections

However, politically connected firms do not always show better results. The emergence of an agency problem often explains this phenomenon. This theory, presented by Jensen and Meckling (1976), is based on the fact that the board of directors directly influences the entire range of critical

corporate decisions, investment and finance, and an affiliate can shift the goal-setting of the firm. Due to this circumstance, politically connected persons can use company funds for public and state vital interests instead of increasing profits, such as public goods, social justice restoration, ideological values protection, investments in industrial infrastructure.

Additionally, it cannot be said with certainty that politically connected directors are acting solely in the state's interests; some of them may well pursue their interests. For example, Shleifer and Vishny (1998) confirm this statement and talk about the possibility of politicians using the resources of enterprises under their control to achieve goals other than the goals of maximising the enterprise's profit or value. Moreover, politically connected persons can be representatives of different line ministries, who can also pursue different interests of their departments and follow different strategies (Sprenger, 2010).

Moreover, in addition to the above, Uddin (2016) provides another argument for the negative impact of political ties. The author focuses on state-owned companies by studying principal-principal conflicts in his research. The author finds the aggravation of this conflict because the state acts as a minority owner. He explains this phenomenon by the influence of the state acting as a minority owner on the majority owners to achieve their political goals. Thus, in addition to the benefits of having political connections, firms can have much higher costs in some cases.

In the context of the costs of having political ties, two main types can be roughly distinguished: social fees and political costs. In the first case, politicians can use the resources of related companies for society. In the second case, officials can direct the enterprise's resources to achieve their personal goals. In both cases, these costs can offset the benefits and negatively affect the performance of politically-connected enterprises.

2.2.1. Social cost of political connection

Considering the social costs of political ties, one can see that the emergence of these costs may be associated with the forced digging to direct resources to various social needs. An example is an increase in the number of jobs that Bertrand et al. (2007) point out in their study of French companies. The authors find an increased demand for labour and associate this phenomenon with politicians' desire to achieve an improvement in the political environment. Wu et al. (2012a) reach a similar conclusion. The authors examine the activities of private and state-owned companies in China, defining the political connection through the political links of directors. They find that the costs of government-owned politically connected companies are overrun by the excess jobs they

have. In addition, they find that such companies are less expensive than politically unrelated state-owned companies. In addition, the authors show that politically connected directors at local state-owned enterprises can assist the ruling party and use companies to achieve political goals. At the same time, such directors of central state-owned enterprises do not show such a trend.

Bertrand et al. (2007) come to an exciting conclusion. On the one hand, according to the authors' research, politically connected enterprises show higher production rates. On the other hand, the same companies demonstrate a decrease in plant destruction rates during election years. The authors also note that this behaviour of politically connected companies is even more traced in politically disputed areas. In addition, the authors observe generally lower profits of politically affiliated companies than companies without political ties. Also, companies and entrepreneurs can have political connections and incur social costs in contact with them. In their study, Yang and Tang (2020) test this point of view. By examining the behaviour of politically connected entrepreneurs, they find that there is a greater likelihood of significant charitable donations from such people. In addition, companies can sacrifice the export of their products to meet social needs. Thus, due to the stimulation of domestic sales, there may be a decrease in the efficiency of the goods and services provided by the companies. Looking at the profits and costs of Italian politically connected firms, Chingano and Pinotti (2013) find that the increase in the market for such companies occurs regardless of their improvement in their productivity. The authors suggest that this phenomenon is due to high sales by the government. According to this study, political connections can provide companies with an average 6 per cent premium to their earnings. The authors also note that this effect from political ties is positively associated with an increase in corruption.

2.2.2. Political cost of political connection

Political costs from the presence of political ties may arise due to the desire of officials to achieve their material or career interests instead of channelling the company's resources for the benefit of society or increasing the company's profits. For example, this conclusion is confirmed in the work of Li and Zhou (2005). The authors show the desire of local officials to use the companies' resources under their control through their associated directors to advance their careers. Li and Zhou (2005) note that politicians can channel company resources to improve regional deficits, GDP growth, and lower unemployment to pursue these goals during their tenure. This finding is verified and supported in part by Wang et al. (2012b). Carrying out a study on the example of Chinese firms, the authors find a negative influence of the political ties of state-owned enterprises on their efficiency. This effect, however, is not found in private companies. Also, the authors

suggest that to achieve an increase in GDP and reduce unemployment, the government may force politically connected firms to over-invest in free cash flow. According to the authors, this distribution of funds has a negative impact on the results of companies' activities and leads to the formation of problems.

Furthermore, the negative effect of political affiliation is noted by Muttakin et al. (2015). Looking at firms in the emerging economy of Bangladesh, the authors find that non-family-owned, politically connected firms show weaker performance indicators. Moreover, the authors find a more decisive influence of political ties in economies with a weak regulatory system.

Okhmatovsky (2010) also shows that the government can pressure politically connected firms to adopt more beneficial strategies for the government, bringing losses to companies. Moreover, taking into account the results of his research, the author introduces the concept of excessive political loyalty. This concept is intended to explain the high costs incurred by companies due to political ties.

Schweizer et al. (2019) focus on cross-border transactions of Chinese enterprises and the impact of political ties on them. The authors find that while politically connected SOEs are more likely to enter into cross-border deals, the average yield is lower for such companies than politically unconnected firms. The authors also note that politically connected directors can create conflicts of moral behaviour while following a political agenda, which can negatively affect the value of shares of politically related companies.

Also, speaking about the material interest of politically connected persons, one can consider a recent study by Banerji et al. (2018). The authors find that political connections among the firm's directors can bring them additional bonuses to the official salary. At the same time, companies are forced to spend their resources for such additional payments. Thus, politically connected directors become more expensive than politically unrelated directors, regardless of their professional skills. The authors also find investments in the financial market of companies that can also be politically motivated. Banerji et al. (2018) suggest that these references are produced to provide financial assistance and reduce the incentives for banks to collect information about companies' projects. The loss of this information, according to the authors, represents hidden costs that can have a negative impact on the company's value.

Dang et al. (2018) examine Egyptian firms during the collapse of President Mubarak's 30-year authoritarian regime. This natural experiment is extremely rare and conducive to studying the impact of political connections on company performance. The authors show that under entrenched

autocracy, state ownership and ties to the president are separate sources of political capital and contribute significantly to company value (just over 20%). However, after the regime's collapse, such firms suffered much more tangible losses in market share prices than unrelated or state-owned firms. Thus, political connections can be associated with the costs of opportunistic behaviour.

Additionally, some studies show a negative overall negative effect of the presence of polystyrene bonds. Faccio et al. (2006) conduct their research examining the impact of political ties on the performance of firms in 35 countries. The authors found that while politically connected firms are more likely to receive government aid, the financial performance of such firms is significantly worse than politically unconnected firms. Moreover, the authors observe this effect both during and after the companies receive aid from the state.

Fan et al. (2007) also noted the negative impact of political ties. After analysing Chinese listed companies with politically connected executives, they found that after the IPO, the return on shares of such companies was almost 18% lower than that of companies with no political connections. The authors also find that politically linked firms tend to show lower three-year profit growth after the IPO and lower sales growth and change in profit margins. In addition, the authors find it highly probable that officials are invited to the board of directors by a politically connected manager. The authors also note that such appointments occur even when a politically connected candidate is inferior in professional experience to other candidates.

Boubakri et al. (2008) conduct their research examining the influence of political connections on changes in profit growth and changes in the development and profitability of company sales. The authors find deteriorating accounting results for politically connected firms that have gone through the privatization process. Similar results are obtained by the authors of a newer study, Schweizer et al. (2019).

Moreover, political connections can benefit firms in times of crisis and harm politically connected companies. For example, Johnson and Mitton (2003) study politically connected Malaysian firms and show that such firms suffered heavy losses during the 1998 crisis. According to the study, politically minded companies lost about 9% of their market value during the crisis. The authors also note the loss of valuable subsidies to previously privileged firms during the crisis. Also, the authors reject the assumption that the loss of valuable assets may be a consequence of the mistakes and shortcomings of such firms in pre-crisis times. In addition, the authors note that the change in government policy, which was expressed in the dismissal of the deputy prime minister and the introduction of capital controls, could show companies with close ties to the minister that state support in the form of subsidies will soon be restored. Thus, these companies

benefited from their political efforts, accounting for a little over 30% of the estimated market value of firms in 1998; this amount was approximately \$ 5 billion.

2.3. Political connection in developed countries

Menozzi et al. (2012), analysing the case of Italian firms, find that state-owned companies, in general, suffer more from internal corporate governance deficiencies since the likelihood of a forced change of directorship, takeover or bankruptcy for such companies is minimal. All this reduces the desire of management to maximise the company's value, and in combination with the soft-budget constraint, leads to a decrease in profitability. In explaining this phenomenon, the authors of the article, like many of their predecessors, adhere to the agency theory: politically engaged individuals tend to act within the framework of short-term goals, ignoring the long-term consequences for the company (Menozzi et al., 2012; Shleifer & Vishny, 1994).

Carrying out a study on the example of Spain, Sánchez-Ballesta and García-Meca (2011) show that a large share of public ownership is significantly strongly correlated with a lower cost of debt. The authors found a decrease in the cost of debt by almost 1%, with an increase in political ties in the form of state ownership by one percentage point. The results of this study correlate with a significant number of studies showing a reduction in the cost of debt overall with the required profitability due to political ties and a decrease in the risk of default (Borisova & Megginson, 2010; Iannotta et al., 2013). Faccio (2010) also provides empirical evidence for a slight reduction in the cost of debt due to the emergence of political connections among companies. However, Borisova et al. (2015) show a significant increase in the cost of borrowed capital due to political ties at any time other than the crisis.

Kostovetsky (2015) comes to important conclusions regarding the peculiarities of the capital structure of politically connected firms: on the example of the United States for 1973-2009. the author finds a positive relationship between political ties and risk, measured as leverage. Likewise, Faccio (2010), on a sample of 20,202 companies in 47 countries, shows that politically connected companies have higher leverage ratios. The author also notes an increase in this effect with an increase in the strength of the political connection. Thus, for example, "excess" debt will be marginally higher for firms that are linked by a prominent owner rather than a CEO.

In a study by Boubakri et al. (2013), the emphasis is shifted to the impact of political ties on companies' liquidity. Using a sample based on firms from 39 countries, the authors find higher account balances for politically related firms on average. First, the authors explain this phenomenon by using politically connected companies by officials to achieve their own political

goals. Thus, such firms may hold more money than their unrelated counterparts to use the funds to fund political campaigns and increase popular support for the government. Second, agency problems are associated with political ties, so a high level of cash flow may reflect a firm's practise of extracting private benefits to the detriment of shareholders' interests (Pinkowitz et al., 2006).

2.4. Political connection in developing countries

In his study, Dinç (2005) notes a significant difference between the functioning of financial systems in developed and developing economies. The author examines the effect that political ties have on the activities of state-owned banks in major emerging markets. Dinç (2005) finds a significant increase in lending by state-owned banks compared to private ones during the election period. On average, in his study, the author shows an increase in the number of loans issued by state banks by 11% of the total. The author explains this effect solely by the influence of the political motives of the affiliated persons. The author also suggests that such a pattern can be explained by the distribution of resources by politicians among connected persons. Cole (2009) arrives at similar results when examining the impact of political ties during elections on state-owned banks' activities in India's developing economy. The authors also add that lending to the agricultural sector increases by 5-10% during the election period. The authors also point to the likelihood of politicians using controlled resources to achieve electoral victory. However, the authors note that such a rapid increase in loans issued by state-owned banks is also associated with a significantly higher rate of defaults.

Bunkanwanicha and Wiwattanakantang (2009) confirmed that being in government positions can be an effective channel for increasing the power of business people heavily dependent on government contracts and contributes to obtaining a competitive advantage for an affiliated firm. Moreover, once in power, tycoons do not miss the opportunity to influence government policy concerning business directly and, thus, obtain private preferences for themselves and their businesses.

Moreover, politically connected firms can have more straightforward access to loans and a relatively higher cost of borrowed capital. These results are consistent with the findings of another study on a sample of Tunisian companies (Lassoued & Attia, 2014). In this study, the authors find a positive effect of political ties on the value of the company and the efficiency of its activities. This positive effect is due to the excess of tax breaks and government subsidies and easier access to debt capital over the higher cost of debt. Thus, the research data show that in developing countries, the channel for gaining benefits from political connections is not a decrease in debt

capital, but more accessible access to it, on an equal basis with receiving subsidies and benefits, as also presented in the study by Bunkanwanicha and Wiwattanakantang (2009).

However, as noted above, in addition to the positive impact of political ties, the authors also note the costs and the negative impact on the efficiency of companies from their presence. For example, they are considering firms in developing countries; Saeed et al. (2016) note a decrease in efficiency for politically connected firms by almost 17% and 15%. The authors draw this conclusion based on ROA and ROE, respectively.

Additionally, in contrast to Thailand, there were conflicting results for China. Thus, in the article, You and Du (2012), the significant positive influence of the political link on efficiency is confirmed only for firms with a profitability value below the industry median. On the other hand, Li and Zhang (2007) and Wu et al. (2012a) obtained more "intuitive" results in the light of the theory of resource dependence: the political network of managers' contacts has a positive correlation with business performance.

Another direction in the study of political ties concerns their impact on the cost of capital. For example, Khwaja and Mian (2005) examine the effects of political ties on Pakistan's firms' performance. The authors confirm the positive influence of political ties on the possibility of obtaining preferential treatment in state banks by firms. The authors also find broader access of such firms to borrowed funds. Moreover, the authors note even greater preferential access even for large enterprises in default. In addition to this, the authors find a direct relationship between the success and influence of a politically connected person and the ability of a firm to obtain concessional loans from state banks. The authors find the most likely explanation for this phenomenon in "social lending", according to which politically connected firms can participate in projects that bring them lower costs, which have high social significance. It seems logical to assume that state banks will prefer companies that focus on solving social problems in such a situation.

2.5. Russian context and research on the political connections in Russia

Considering the existing research, there is a possibility to highlight the ambiguous results of the study of the influence of political ties on the activities of firms. It can be concluded that the ultimate positive or negative influence of the political ties of management on the performance of the firm depends on how well the firm can benefit from the presence of political ties and whether it can compensate for the costs of political ties (Han & Zhang, 2018; Zhang & Truong, 2019). In addition, the presence and influence of political ties can be determined by the political, economic and social

environment of the location of a politically connected company (Faccio, 2006; Banerji et al., 2018; Qin & Zhang, 2019).

Moreover, from previous studies, it can be concluded that political ties are more likely to benefit enterprises that are in a transitional economy with poorly developed formal institutions and market mechanisms (Wu et al., 2018), as well as in regions and countries where there is a high level of corruption (Faccio, 2006). In addition, the level of influence of political ties depends on how much government intervention is in the economy; the higher the influence of the state, the correspondingly stronger the effect of the presence of political ties (Banerji et al., 2018).

Considering the patterns of the internal organisation of a company, they are more likely to benefit from political connections in companies with weaker corporate governance (Newton & Uysal, 2019).

Considering the conclusions about the likelihood of finding political ties between companies and their impact, the example of a transitional economy in Russia with a particular political context remains very little studied. For instance, concerning a similar corporate governance problem, Muravyev (2017) article notes that after analysing a significant base of previous research, only eight articles were published in rating journals. However, even fewer articles examine the influence of political ties in Russia.

Although there is significant government interference in Russia's economy and corporate governance, even after the transition from a planned economy to a market one, Chernykh (2008) examines this problem of forms of control and ownership using the example of Russian companies. The author finds serious interference by the federal and regional governments in the management of companies on the means of using the pyramids. Furthermore, the author concludes that, in general, Russian companies' owners exercise control, whose identity cannot be established either by the government.

In addition, Gans-Morse (2012) points to a severe threat to property rights from the Russian government. The author examines the fundamental change in threats to property from threats of physical intimidation to gain control over companies, which were widespread during the 90s of the 20th century, to threats from state actors. Such hazards include abuse of power and the use of the judicial system to gain control over the assets of companies, which can be expressed in fabricating criminal cases against people in business (the most striking example is the high-profile case of Yukos), the imposition of illegal fines, illegal raids by government officials and extortion.

Taking this study into account, one can see the weakness of the legislative system of the Russian Federation.

Moreover, a more recent study by Rochlitz (2014) analyses cases of illegal raids during the late 90s and early 2000s, during the transfer of power by Boris Yeltsin to Vladimir Putin. The authors will shed their analysis focusing on the evolution of the complicity of legal raids over time and their distribution by region and industry. The author finds evidence of illegal state control over the property of companies consistent with Gans-Morse (2012) and shows an increase in the participation of state bodies in illicit actions aimed at seizing enterprises against the will of owners. In addition, the author finds a positive relationship between the number of unlawful raids in the region and the degree of manipulation of the elections and the election results of the ruling party and the president. The author finds fewer attacks in regions where governors have stronger ties at the local level. This study also shows that along with the weak development of the judicial and legal systems, high state interference in the economy and activities of companies in Russia, there is also a weak development of market relations.

Taking these factors into account, Russia appears to be a natural laboratory for studying political ties and their influence on the activities of the companies. Also, as Gans-Morse (2012) noted in Russia, one can observe a unique situation of the state's desire to establish political ties with companies and not vice versa.

Considering the studies of political ties, which were carried out exclusively on the example of Russian companies, the following articles can be distinguished.

Slinko et al. (2005) consider an exciting period of instability and restructuring of the Russian economy from planned to market in 1999-2000. The authors focus their attention on the impact of capturing regional regulators and legislatures by influential firms. They investigate whether such behaviour of politically connected firms positively affects their dew and efficiency. In their article, the authors raise and provide evidence for a fascinating problem of the seizure of legislative institutions by several large firms. In this way, these politically connected firms lobby and pass legislation that benefits them. However, this comes at the expense of other politically unrelated businesses. This issue sheds light on the broader phenomenon of undermining stability and the rule of law. By seizing legislatures by politically connected and influential firms, the authors show that politically non-sacred firms suffer losses from trade arrears and unfair competition. The authors also show that politically connected firms can exploit their workers with only partial payment of wages.

Moreover, the authors show that this behaviour of politically connected firms can harm society as a whole. As politically connected firms gain more control over adopting laws that favour them, tax revenues to the budget are reduced, thereby provoking weaker provision of various public goods. While politically connected firms, according to the research of the authors, show higher performance results, which are expressed in higher rates of increase in profits and sales. In addition, such firms show superior employment rates and, in general, the authors show that politically connected firms demonstrate more successful negotiations with workers. Also, such firms show the possibility of more successful interaction with the tax system. Thus such companies can have a sufficiently large level of tax liabilities. In addition to this, the authors show the possibility of political firms to conduct more profitable negotiations with suppliers and increase trade turnover.

Furthermore, the authors find that politically connected firms receive more significant government graft in regions with higher firm-controlled legislatures. However, as described above, this situation has negative consequences primarily for politically unrelated firms. Thus, the authors find that increasing the level of control of politically connected firms over the legislature leads to a decrease in the performance and investment of politically unconnected firms. In addition to this, the authors document the negative impact of this effect on government revenues and the difficulty in small businesses and entrepreneurship development. Also, the authors found no evidence of a significant impact of the use of the legislative system by politically connected firms on aggregate regional growth.

Frye and Iwasaki (2011) classify the relationship between government and companies in transition economies into three types: promoting corporate governance, making a firm profit from the government, and making a government profit from the firm. Considering this separation of the effects of politically connected directors in the company, the authors further consider their impact on the performance indicators of Russian joint-stock companies. The authors conclude that the relationship between companies and the state can be termed "collusion". This type of relationship between the state and politically related companies benefits the state by using the companies' resources. However, at the same time, the presence of a politically connected person in the company saves the company from the costs of interacting with the bureaucratic system and allows receiving benefits and subsidies. The authors also note that politically connected firms tend to provide various services to the state with this nature of the relationship.

Szakony (2015) analyses the sample of Russian companies. In his study, the author concludes that winning the election of an affiliated director ensures the growth of revenue from

related companies by \$ 13 million (by 60%), net profit - by \$ 800 thousand (by 90%). The growth is ensured not due to a positive signal for stakeholders but also due to decreased information and bureaucratic costs.

Another relevant study by Grigoriev and Zhirkov (2020) analyses a sample of Russia's most successful business owners from 2003 to 2010. The authors use different types of political ties, which are determined depending on the level of influence (federal or regional), formality (formal, non-formal) and the type of power (executive or legislative). The authors show that with the centralisation of Russian politics, there was also an increase in the influence of federal power with the beginning of the first term of President Putin. At the same time, according to the results of the study by the authors, there is a faster rate of capital increase for politically connected business people who have non-formal ties with the federal executive branch compared to entrepreneurs who have other types of political ties. Thus, the authors question the effectiveness of political ties in general and argue that in autocratic political regimes, the government may resort to quasi-democratic institutions, which may not be endowed with power. In addition to this, the authors point to the informality of relations between business and the state in Russia.

Finally, in the most recent empirical study, Trifonov (2021) looks at the impact of political connections on company performance between 2011 and 2015. The authors found a significant negative influence of political connections on the price of companies' shares. For example, the authors show a drop in company stocks of about 1.34% after announcing that the company has political connections. Moreover, the authors establish that politically connected owners exert the most pronounced negative influence on the firm's value. The authors also show the stock market's adverse reaction to the purchase of shares of companies by politically connected persons. In this situation, stocks of companies are experiencing a decline in prices during the first trading week by almost 2%. This negative effect has an even more significant impact on the acquisition of shares not by a politically connected enterprise but by a politically connected individual; in these conditions, the price of shares decreases by more than 4%.

Moreover, the authors conduct their analysis by dividing their sample by the period before starting the conflict with Ukraine and after. This division shows the strengthening of the negative impact of political ties on the price of companies trading on the stock market since the beginning of events in Ukraine in 2014. According to international studies, the author also found a different influence of political ties on private and public enterprises. Thus, the authors find a more substantial negative impact of political ties on state enterprises. Also, the authors, despite the

conclusion of international studies, do not find a relationship between the age of the company and the remoteness of its location from the capital

Chapter 3. Hypothesis Development

Based on the generalisation of previous empirical studies on this topic, the following working hypotheses were formulated.

3.1. Performance

The theory of agency problems assumes the excess of various types of costs from political ties over benefits. This study highlights the political and social costs of having political ties. Based on previous studies, the first type of possible costs from the presence of political ties can be attributed to losses resulting from the use of company resources for the political purposes of an affiliated person (Dang et al., 2018; Schweizer et al., 2019). Also, politically connected companies may incur staffing costs, such as paying additional bonuses and the salaries of directors of companies with political connections (Banerji et al., 2018) and hiring politically connected persons who are not qualified as directors (Fan et al., 2007). These results are also consistent with the study by Chen et al. (2011). The authors show the negative impact of politically connected directors on the effectiveness of the company's investment policy, leading to a decrease in the results of companies' performance.

Moreover, Wu et al. (2012b) noted firms' costs due to making ineffective economic decisions due to the influence of a politically connected person. In addition, the cost of sponsoring political organisations and parties can also act as an additional cost item for impairing the performance of politically related firms (Lee et al., 2018). These costs can be characterised by the concept of excessive political loyalty, proposed by Okhmatovsky (2010), which means that politically connected firms tend to follow strategies that benefit the government and worsen company performance. This argument is also found in an earlier study by Bertrand et al. (2007). In this study, the authors find that politically connected firms tend to follow policies that use the company's resources to achieve political goals, which leads to a decrease in profits.

In addition to political costs, the literature review of this study also highlights social costs. This type of cost arises from the desire of politically connected companies to meet social needs. These may include: channelling funds to support social institutions (Wu et al., 2012a), investing in charitable organisations (Yang & Tang, 2018), provision of surplus jobs to reduce unemployment (Liu et al., 2019).

Additionally, in some studies, the overall negative impact of political ties on the activities of companies is noted. Thus, considering companies during the crisis, Johnson and Mitton (2003) show the possibility of political companies having more severe losses. In addition, the presence of

political ties can lead to a deterioration in the quality of goods and services, which can also have a negative impact on the performance of firms (Cingano & Pinotti, 2013).

Also, comparative studies (Faccio, 2010; You & Du, 2012; Menozzi et al., 2012) show that politically connected firms are inferior in efficiency to conventional firms. In this context, Asquer & Calderoni (2011) show a deterioration in the performance of politically connected Italian firms. Also, Faccio (2010) shows lower productivity of politically connected companies. Furthermore, Boubakri et al. (2008) find lower accounting rates for Chinese politically connected firms. In addition, Fan et al. (2007), based on a sample of post-privatization Chinese companies, find that politically connected firms perform weaker than politically unconnected firms through management. Moreover, looking at privatised firms from 42 countries, Boubakri et al. (2008) find that politically related firms' performance and accounting records are lower than politically unrelated firms.

Thus, we formulate the first hypothesis, for testing which is supposed to use the ROA, ROE and ROI indicators:

H1. Politically connected firms, on average, perform weaker than politically unconnected firms.

3.2. Leverage

Previous research has shown that politically connected firms benefit from more accessible access to debt financing, a more favourable financing regime. Political connectedness can, in this case, act as an administrative resource. Thus, political affiliation can appear as an administrative resource in this situation.

Claessens et al. (2008) consider access to equity capital one of the most effective channels for politically connected companies to gain benefits. The authors note a significant increase in bank financing from politically related companies compared to politically unrelated companies. Also, Khwaja and Mian (2005) show that politically connected Pakistani firms receive preferential lending regimes. In addition, the authors note that politically connected firms have received larger loans. Khwaja and Mian (2005) also show significant leverage of politically related firms relative to conventional firms. However, the authors note that such access to borrowed funds with more favourable conditions is observed only in state-owned banks. These results are consistent with other studies conducted on the example of developing economies (Cole, 2009; Dinc, 2005; Charumilind et al., 2006). Also, Boubakri et al. (2008) find a relationship between a high proportion of loans and a politically connected person at the company. This finding is consistent with a study by Faccio (2006) in which, looking at firms from 35 countries, she finds that there is

more than 2% leverage of politically connected firms. This finding is also consistent with a newer study by Wang et al. (2019b), where the authors show that politically connected firms receive more bank loans. In addition, more accessible access to debt financing is noted by He et al. (2019).

The study by Bliss et al. (2018) in which the authors show a lower cost of loans for companies with political connections. Bliss et al. (2018) focused on examining the relationship between Hong Kong firms and political associations and the cost of debt. The authors believe that the interest rates charged by lenders are higher for non-policy firms. Thus, the cost of leveraging the policy of related firms is reduced. Moreover, Khwaja & Mian (2005) show that politically connected companies are 45% higher. The authors conduct their research by looking at credit data in Pakistan's emerging economy. However, the existence of such a regime is observed only in state-owned banks.

Thus, this leads us to formulate the second hypothesis, for testing which it is supposed to use the leverage ratio (D / E) as an independent variable (Faccio, 2009):

H2. Leverage will be higher for politically related companies than for politically unrelated companies.

3.3. Maturity

Previous studies have highlighted the possibilities for politically connected companies to receive government assistance; for example, Faccio et al. (2006) show that politically affiliated companies received government assistance during the financial crisis. Wu et al. (2012a) support these findings. In addition, looking at the activities of Chinese companies, the authors find that politically connected companies receive more government subsidies. The results of this study are also supported by a more recent study by Li and Zhou (2015).

Also, previous studies have highlighted the potential for politically connected firms to receive government assistance to avoid bankruptcy (Halford & Li, 2020), as well as during the crisis (Lee et al., 2018; Dang et al., 2018; Faccio et al., 2006)

Moreover, Charumilind et al. (2006), conducting their research on the example of the developing economy of Thailand in the pre-crisis period, find a significant influence of the presence of political ties on the possibility of obtaining long-term loans. The authors point out that banks often provide long-term loans to politically connected firms, requiring less collateral. On the other hand, the authors also point to less demand for short-term loans from politically

connected firms. Since Russia has a developing economy and a poorly developed institutional environment, it can be assumed that similar results will be found.

Taking these patterns into account, following Boubakri et al. (2012) found an increase in long-term debt in politically connected companies during the first three years since establishing political ties. This study explores the assumption that, because of the pattern shown in previous studies of politically connected firms receiving government assistance in crises, such firms may have expectations of receiving government subsidies and, based on them, enter into longer-term debt obligations.

Thus, our third hypothesis is formulated as:

H3 Political connections between companies will be positively associated with Maturity.

3.4. Tax

The influence of political ties on the tax burden of companies has not been considered extensively in previous studies. However, it is natural to assume that companies' relationship with the state can directly impact their taxes. Arayavechkit et al. (2018) consider this issue as one of the most significant, considering the influence of American companies on the amount of taxes paid by the company. The authors associate this with many tax benefits provided by the American tax system and the uneven distribution. In addition, the authors find a connection between the reduction in the amount of taxes paid by the company and the presence and amount of the company's expenses allocated for lobbying.

Currently, Russia has developed a rather complex system of taxation and obtaining benefits and various kinds of preferences, the number of which is in the hundreds. Also, only in February 2021, the Russian Ministry of Finance and the Federal Tax Service begin to launch an electronic system for monitoring tax incentives. This fact shows the presence in Russia of weak official institutions and a high level of bureaucracy. Thus, companies' use of political ties to avoid a complex and resource-intensive bureaucratic process in obtaining tax preferences seems natural in this situation. Also, this assumption correlates with both rent-seeking theory and resource dependence theory. Additionally, the relationship between the weakness of the development of formal institutions and the influence of political ties that can act as a substitute for them in his article notes Lee et al. (2018).

In her study, Faccio (2010) shows lower taxes paid by politically connected firms. Although the author notes that these differences between politically connected firms and firms

without political ties are not statistically significant, Faccio notes statistically substantial results for firms with political ties through the firm's owners. Furthermore, Lee et al. (2018) show that private, politically connected companies receive more favourable tax regimes than state-owned and non-politically affiliated companies. These results are confirmed by Wu et al. (2012b). Finally, considering the problem of the amount of taxes paid on the example of Chinese companies, the authors find that private companies that have a politically connected person on their board of directors have more favourable tax regimes and, accordingly, a lower tax burden. The authors suggest that this trend may be associated with the desire of private companies to increase profits when state-owned enterprises are faced with an agency problem.

In addition, this hypothesis correlates with the results of assessing the influence of politically connected companies on regulatory and legislative bodies by Yakovlev and Zhuravskaya (2005). So the authors noted that at the beginning of the formation of the Russian economy in the 90s, there was a situation of seizure of legislative institutions by a limited number of large enterprises, which in turn lobbied for the adoption of laws that would benefit these companies. Thus, given these historical events, it can be assumed that politically connected firms will have easier access, including obtaining tax benefits.

However, Gans-Morse (2012), considering the problem of state interference in the activities of companies, noted that at present in Russia, state bodies can use their power to impose illegal fines. Adhikari et al. (2006) also find the negative impact of political ties on the size of tax payments using the example of Malaysian companies. Looking at the activities of companies over ten years, the authors find that politically connected firms, on average, pay more taxes than politically unconnected ones. Also, fewer taxes are found in firms with higher equity-to-equity ratios (Arayavechkit et al., 2018; Goldman et al., 2009), an indirect sign of politically related companies. (Boubakri et al., 2008)

Therefore, in this study, the following hypothesis is formulated; for testing this hypothesis, it is assumed to use the tax ratio enclosed by Faccio (2010):

H4. Politically related companies are expected to have lower tax costs.

Chapter 4. Methodology

Existing research examining the impact of political ties on the performance of an organisation uses different research methods depending on the data available and the goals of the work. You can also distinguish two main approaches to compiling a methodology for research considering this problem.

The first approach is to compare the financial performance of one firm before the establishment of political ties and after, this approach has been widely used both by international researchers, for example, Asquer and Calderoni (2011) and the most recent study of Trifonov (2021) conducted on the sample of Russian companies. In this case, regression discontinuity design (Szakony, 2015) or event study (Boubakri et al., 2012) may be the most effective means of analysis.

However, in the case of this study, the specificity of the available data does not allow for this type of analysis. First, some enterprises do not have a period of existence without a politically connected person on the board of directors. Second, an official's entry into the board of directors could have occurred between 1990 and 1999, for which it is impossible to find financial data. In the SPARK database, companies' financial statements begin only from 1999, which is the earliest data obtained. A search for companies' financial data before 1999 yielded no results. Also, a relatively small number of companies under consideration, on average 300, and the periods under consideration (on average after 2000) by previous studies conducted on the example of Russian companies indirectly confirm the existence of this problem. Thirdly, only in the early 2000s began a gradual transition of large joint-stock companies to IFRS (The International Financial Reporting Standards) or GAAP (The Generally accepted accounting principles), which ensures the comparability of indicators between objects and dynamics.

The following approach is based on a cross-sectional comparison of the performance of politically related and unrelated firms, considering other explanatory factors. This approach seems to be the most appropriate for the purposes of this study, taking into account the limitations associated with obtaining data from Russian companies. This approach is also widely used in studies of the impact of political connections on company performance, for example, Wu et al. (2012a), Boubakri et al. (2008), and Dombrovsky (2008).

$$\text{Dependent Variables} = PC + \text{Firm Controls} + \text{Manager Controls} + \text{GovEntDummy} + \text{YearFE} + \text{IndustryFE}, \quad (1)$$

where *PC* - dummy variable equals to 1 if the company is politically connected and 0 otherwise, *FirmControls* - set of firm-level control variables, *ManagerControls* - set of manager level control variables, *GovEntDummy* - a dummy variable equals to 1 if the enterprise has state-owners, *YearFE* - year fixed effect, *IndustryFE* - industry fixed effect.

A regression model has been constructed for each dependent variable with control explanatory variables fitted from previous studies.

4.1. Dependent variables

4.1.1. Performance

To assess the impact of political relationships on the activities of firms, the existing literature mainly uses an analysis of the market activity of companies and an analysis based on the assessment of accounting indicators. In the first case, most studies use such indicators as a market cup (Faccio 2006), CAR and Tobin's Q. However, as Muravyov (2017) says in his research, a minimal part of Russian companies participate in trading on the stock exchange; on average, it is about 250 companies in a year. Also, the data is not stored in the public domain. Thus, although Muravyov (2017), in his study, considers information on the market activities of 500 Russian companies, he notes that this is a rare phenomenon, and he was able to get limited access to the data of the Moscow stock exchange.

Thus, this study uses a more traditional approach based on analysing companies' financial statements (Anthony & Reece, 1995, Chapter 13). These indicators include return on assets and return on equity used in this study.

4.1.1.1. The return on assets ratio (ROA)

In theory, the value of the return on assets ratio should positively correlate with the company's shares. Thus, a higher value of this ratio, *ceteris paribus*, may indicate an increase in the company's worth for shareholders. Also, Mishra and Mohanty (2014) argue that ROA is one of the most significant indicators for analysis since it can show the effectiveness of the company's management, regardless of the difference in the degree of leverage in this company. Also, compared to market indicators, return on assets shows a much higher sensitivity to the firm's economic performance (Liu et al., 2015). Also, this indicator is one of the most suitable for assessing the current activities of the company, according to Cornett et al. (2007)

In the existing literature, there are several approaches to calculating this indicator. The most traditional is the calculation of ROA as the ratio of profit before tax to total assets (Menozzi et al.,

2012; Faccio et al., 2006; Wong & Hooy, 2018; Saeed et al., 2016; Claessens et al., 2008; Brown & Huang, 2020). An alternative option for calculating ROA is the ratio of Net profit divided to total assets (Wu et al., 2012b, Jia et al., 2019). In this study, both methods of calculating ROA were applied. However, no significant difference was found between the influence of political ties on these indicators. Thus, the basic models use the first most common way to calculate return on assets.

4.1.1.2. The return on equity ratio (ROE)

The rational structure of the company's capital is a necessary condition for the profitability of production and the sustainability of the company's economic growth. It provides the company with a good level of return on equity and acceptable financial stability. Thus, the following dependent variable used to estimate the company's performance is ROE (return on equity) or return on equity. In contrast to the return on assets, this indicator characterises its owners' share of profit in equity invested in the company. In other words, ROE is a measure of the reward that owners receive for taking on the risk associated with investing in a risky venture. Thus, the return on equity indicator can most clearly reflect the efficiency of the company's management (Jaafar et al., 2012), which is consistent with the objectives of this study.

In this study, the return on equity is calculated as the ratio of the company's net profit to equity capital (Menozzi et al., 2012; Li et al., 2008; Wu et al., 2012; Saeed et al., 2016). The return on equity can also demonstrate the intensity of growth of the organisation's sources of financing.

4.1.1.3. The return on investment ratio (ROI)

Also, to assess the activities of companies, it is reasonable to evaluate the efficiency of using investment capital. Since these investments are a means of ensuring the company's development in the medium and long term, also, the level of the organization's profit from invested capital can characterise the effectiveness of the company's management, which is considered in this article in the context of the presence of political connections. One of the most commonly used indicators for measuring return on investment is the return on investment (ROI). ROI shows the extent to which a particular business is making a profit from the use of capital. It shows the extent to which the amount invested in a specific action is returned in the form of profit or loss. Thus, it allows measuring the result concerning the means used to obtain it.

This indicator is also used in a relevant study to assess a firm's performance, together with ROA Menozzi et al., (2012). in their article, authors exclude return on assets due to the relative invariability of this indicator among the companies in question in the period under review and

connection with the structured financing of activities by Italian companies. Thus, this indicator was also chosen to assess the impact of political ties on the activities of companies.

Return on investment is calculated as the ratio between the operating profit received after investment actions and the total amount invested, calculated as the sum of equity and financial debt.

4.1.2. Capital structure and firm performance

The relationship between capital structure and firm productivity is mainly based on two main theories: trade-off theory (Kraus & Litzenberger, 1973) and hierarchy theory (Myers & Majluf, 1984). So the trade-off theory assumes a positive relationship between the increase in the company's borrowed capital and its productivity. Therefore, according to this theory, more profitable firms are less likely to experience financial difficulties and thus have more opportunities to attract borrowed funds and use tax deductions in this regard. Thus (Campbell & Kelly, 1994), when the firm reaches the optimal ratio between the costs that may arise in the event of potential bankruptcy and the benefits that can be obtained from the use of borrowed capital, the capital structure of the firm comes to an optimal ratio of borrowed and own funds, which in turn should have a positive effect on the company's productivity.

However, hierarchy theory reflects the opposite view of the impact of capital structure on a company's performance. Thus, according to this theory, more profitable companies are less inclined to use borrowed capital (Myers & Majluf, 1984) since such companies have enough equity capital to finance the company's activities and its development. On the contrary, the increase in the company's borrowed capital occurs due to the lack of its own and weak productivity.

Thus, although there are different points of view on the direction of the influence of the capital structure on the firm's productivity, this influence remains significant.

4.1.2.1. Leverage

The leverage indicator can reflect a company's capital structure since it shows the ratio of borrowed and equity capital used by the company to finance its activities and development. In the context of a company's leadership, leverage can be used to increase the return on equity and increase shareholder returns.

Financial leverage can lead to an increase in the value of a company when it uses income tax protection under applicable tax laws. Also, leverage can positively affect the company's performance when the firm's assets acquired using debt can generate more returns than the related

finance costs used to service that debt. However, if the firm does not have sufficient taxable income to protect it, or operating profit is below the critical value, the use of financial leverage can reduce the company's equity capital, which can lead to a decrease in the value of the company and possible bankruptcy.

In the case of fast-growing companies, it is possible to expect them to use more financial leverage due to the need for more capital to finance fast development. Companies with higher tax categories tend to use more leverage, while less profitable companies use more leverage because they do not generate enough funds on their own. The degree to which firms choose to maintain a given level of financial leverage can differ depending on the industry in which they operate or the type of business in which they are engaged. Industries such as retailers, marketing companies, airlines, banks and IT companies are heavily leveraged. However, the exceptionally high level of financial leverage of firms in such sectors can negatively affect the company's sustainability and signal potential bankruptcy.

In this study, leverage is calculated according to most studies analysing the impact of political linkages as the ratio of total debt to company assets (Faccio et al., 2006; You & Du, 2012; Bliss et al., 2018; Joni et al., 2020; Chaney et al., 2011; Kostovetsky, 2015; Jia et al., 2019; Li et al., 2008; Saeed et al., 2016; Boubakri et al., 2012; Bunkanwanicha & Wiwattanakantang, 2009; Wu et al. 2012b; Wong & Hooy, 2018; Brockman et al., 2013; Brown & Huang, 2020).

4.1.2.2. Maturity

The maturity ratio focuses more on the role of long-term borrowed funds in the company's operations. The use of debt capital by companies can reflect the availability of sufficient resources at the company's management, indicating its high productivity and the possibility of its further development (Stephen & Ross, 2012). However, as mentioned above, according to the hierarchy theory, companies can apply for financing in the event of the exhaustion of their resources, which may indicate an unstable financial position of the company. However, the chances of obtaining long-term loans from such companies are reduced due to lenders' assessment of their financial condition and reliability for providing a loan for a long time. Thus, companies' sufficiently high use of long-term debt financing may indicate their reliability from the lender's point of view. However, according to hierarchy theory, highly efficient firms are reluctant to use this funding source.

In this study, this indicator can reveal one of the channels for obtaining benefits from political connections through long-term loans by companies. Therefore, in this research, following

Boubakri et al. (2012), Fan et al. (2008) and Bunkanwanicha and Wiwattanakantang (2009), the maturity ratio is calculated as the ratio of long-term debt to total debt.

4.1.3. Tax

In this study, following Faccio (2010), Fisman (2001), Wu et al. (2012b) and Francis et al. (2016), the most common method of calculating the tax ratio is used, which is expressed in relation to the amount of taxes paid by the company to profit after taxes.

4.2. Political connection variables

PC is a variable that determines the political affiliation of the company, takes the value one if the company has a politically-connected director and 0 otherwise.

In the existing literature, there are several approaches to determining the political affiliation of a firm. The most common of these is the definition of politically connected organisations through the presence in these organisations of managing directors or board members who are politicians. However, there is a nuance in defining a politically connected person. Is this person a politician in the present, or was this person a politician in the past? One of the most traditional ways of defining politically related companies is the method proposed by Faccio (2006), namely, a company is considered to be politically connected if a representative of the government, a former official, a politician is present in the composition of senior officials or among shareholders who control at least a tenth of the company's shares or a person closely associated with a political party. In this case, the division on whether the leader has political connections in the present or the past is not considered since these two types of connections are combined into one. This approach is followed by studies such as Kostovetsky (2015) and Boubakri et al. (2012). Also, using the example of Russian companies, this definition is followed by Trifonov (2021) as well as Trifonov (2021), this study analyses the corporate reporting of companies, which discloses previous jobs and positions held by directors for at least the last five years, which is provided by the SPARK database.

However, a significant amount of previous research identifies the political connection of an organisation as the presence of a director in a current state position. Such studies include, for example, Ferris et al. (2016), Brockman et al. (2013), Joni et al. (2020) and Kim and Zhang (2016).

Thus, in this study, we define two types of political connections of the company. The first type of political connection of a company is defined as the presence of a director with a political connection in the past (PCPast). The second type of political affiliation indicates whether the

director is a politician in the present (PCCur). In addition, in a study examining Russian companies, Okhmatovskiy (2010) shows that not only the activities of companies can be influenced not only by their ties with the government but also by ties with state corporations. He notes that firms can benefit more from links with state-owned enterprises than direct ties with the state. Since the SPARK database presents information about the experience of company directors in the form of the period of tenure, job title and past place of work, in our study, we consider two subtypes of political ties: ties with the state, which are determined by the public office held by the director (PC1) and relations with state corporations, the experience of directors in state corporations (PC2).

4.3. Control variables

4.3.1. Firm Size

Firm Size is the most common dependent variable for constructing regression models for evaluating company performance, capital structure and tax rates.

According to Chhibber and Majumdar (1999), larger firms can provide a higher return on assets due to savings in formalisation and optimisation of business processes due to scale and having more opportunities than smaller companies. This argument is supported by a more recent study by Chen et al. (2009). The authors demonstrate evidence of higher return on assets in larger enterprises, which is supported by research by Wu et al. (2012a). On the other hand, Wong and Hooy (2018) show that larger firms tend to have a lower return on assets, which is also consistent with the results of Mitchell and Joseph (2010). Thus, the value of this indicator can be either positive or negative.

In her classic study on the influence of political ties on organisational performance, Faccio (2006) notes the likelihood of a more critical role of larger firms for the state's economy in question and thus will receive more government assistance in financial difficulties. Therefore this indicator is used as a control variable for both leverage and maturity. Also, an earlier study by Diamond (1991) speaks of a higher maturity in large firms.

This indicator is also considered in the existing literature to estimate the firm's amount of taxes. For example, in a reasonably early study, Holland (1998) finds a negative relationship between the size of a firm and the amount of taxes paid to it. Also, in his classic study examining the size of companies' tax payments in the context of one of the channels of political spending, Zimmerman (1983) demonstrates the relationship between the size of the organisation and the amount of taxes paid.

The company size indicator in this study, following most studies, is calculated as the natural logarithm of the total assets of the company (Duchin & Sosyura, 2012; Kostovetsky, 2015; Sun & Zou, 2021; Jia et al., 2019; Wong & Hooy, 2018; You & Du, 2012; Khwaja & Mian, 2005; Saeed et al., 2016; Joni et al., 2020; Wu et al., 2012). Although there are alternative options for calculating this indicator, one of the most popular is the natural logarithm of the company's market capitalisation. This calculation method is used mainly in studies based on market information (Boubakri et al., 2012; Faccio et al., 2006; Faccio, 2010). There are also ways of calculating company size, which is relatively rare in studies on the impact of political connections on company activities, such as annual sales of a company (Brown & Huang, 2020; Chernykh, 2011) and the logarithm of market value (Kim & Zhang, 2016). In this study, these calculation methods appear to be inappropriate due to the available financial data of the companies in the sample and their popularity in relevant studies.

4.3.2. Firm Age

Anyadike-Danes and Hart (2017) show a significant influence of company age on firm performance in their study. The authors analyse companies' development cycles and show that more firms die within the first five years after formation, and only 10% of firms have a chance to live to 15 years. Thus, the authors illustrate the influence of the firm's age on its activities. Also (Jeillicit al. 2001) note the lower productivity of young firms compared to older firms in the industry. However, after going through the adaptation and learning process, Haltiwanger et al. (2013) show a positive relationship between the age of a firm and its performance. However, Loderer et al. (2010) find a significant and persistent negative relationship between company age and profitability. Thus, by including this variable in the analysis, we assume both a negative and a positive impact on firms' performance.

4.3.3. Board size

The Board Size is used to control the number of directors on the board. Previous research suggests that larger boards of directors can negatively impact company performance due to impaired ability to monitor risk-taking and monitor management performance and more significant division of responsibility among board representatives (Hermalin & Weisbach, 2001). However, earlier research shows the positive impact of increasing the number of managers on the boards on company performance (Dalton et al., 1998; Pearce & Zahra, 1992). This effect is explained by Mishra & Mohanty (2014) by the difficulty of smaller boards of directors creating separate committees, whose task may be, for example, to audit the company or to assign remuneration positively. However, the size of the board of directors varies depending on the

country's legislation, the policies of the individual company. Although the relative ideal size of the board of directors, according to Jensen (1993), is 7 or 8 people, which is less than ten directors proposed by Lipton & Lorsch (1992). Russian corporate law also contains provisions on a minimum composition of the board of directors, which is five people (Article 66 of the Federal Law “On Joint Stock Companies”). Thus, both positive and negative values are expected for this indicator.

The size of the board of directors in this study, following You and Du (2012), Ferris et al. (2016), Muravyev (2017), is defined as the natural logarithm of directors on the board.

4.3.4. Cash Holding

Palazzo (2012) finds a positive effect between US public companies' cash retention and expected equity return. The author notes the preventive nature of the retention of funds by companies and the possibility of increasing efficiency due to the presence of additional funds in the accounts of firms. Pinkowitz et al. (2006) show lower estimates of corporate cash holdings for firms in financial distress and firms with ongoing investment opportunities.

Ogundipe et al. (2012), based on the Peck in order theory, show a positive relationship between the return on equity and the level of cash reserves. Fresard (2010) also notes the higher performance of companies with higher cash reserves than competitors. Mortal and Reisel (2014) show that firms with high cash holding rates have a lower ratio of borrowed funds to finance their activities and, accordingly, a lower value of financial leverage. Additionally, in the face of possible bankruptcy and other financial turmoil, Deloof (2003) shows that companies tend to increase both the level of leverage and cash holding. As described above, this situation the likelihood that firms with low cash holdings may have easier access to debt capital and, consequently, higher leverage. Finally, Kim and Zhang (2016) also find a significant influence of cash holding on tax.

Following Kim and Zhang (2016) and Chaney et al. (2011). in this study, the cash holding indicator is calculated as the sum of cash and cash equivalents and short-term investments to all company assets. There was also tested a slightly different way of calculating this indicator as to the ratio of cash and cash equivalents to the total number of company assets (Kostovetsky, 2015; Wu et al., 2012b; Sojli & Tham, 2017), however, based on the results of regression analysis, the main results of this study provide only the first way to calculate this indicator.

4.3.5. Collateral

The company's performance indicators considered in this study can be influenced by the company's provision. Therefore, looking at productivity in terms of return on assets, equity and investment, more secured companies are more likely to invest in capital goods and more opportunities for development, which in turn can positively impact the company's performance indicators. Considering the capital structure, it is also logical to assume that well-secured firms are more likely to be borrowed. Thus, we can expect a positive impact on both the leverage ratio and the ratio of long-term loans to the total borrowed capital of the company.

Following Faccio (2006), the collateral ratio is calculated as the ratio of fixed assets to total assets.

4.3.6. Leverage

To build regression models for profitability indicators, this work uses the company's leverage as one of the control variables. Because according to the Cash Flow Gap, the use of borrowed funds by a company can reduce the negative impact of the agency problem and improve the firm's performance (Fama & Jensen, 1983). This effect can also be more clearly traced in countries with a weak development of legal institutions and a relatively high level of corruption. Thus, using the example of Pakistan, Saeed (2013) shows the need for companies to use borrowed funds to increase profitability. In our analysis, leverage is measured as the ratio of total debt to total assets.

Saeed et al. (2016) show that in developing countries, characterized by underdeveloped legal institutions, firms are more likely to use leveraged funds and establish relationships with lenders to obtain more favourable financing regimes, which has a positive impact on the performance of the company. This argument is consistent with the free cash flow hypothesis (Fama & Jensen, 1983). Furthermore, this hypothesis suggests that the use of borrowed funds by organisations can mitigate the agency problem, which leads to an improvement in the company's productivity.

4.4. Manager's variables

4.4.1. Education

SPARK database provides information about educational level and educational institution. Based on this information, in this study, the level of education in accordance with the Russian education system was first determined since the database provides this information only in Russian, namely, secondary, specialised secondary, higher, master's, postgraduate, doctoral. Further, the data were

compared with the New Zealand education system. Thus six levels of education were obtained: Bachelor's Honors degrees, Bachelor's degrees, Doctoral degrees, ITPs, Master's degrees, Postgraduate certificates. For further analysis, each of the levels was assigned a number from 1 to 6, and the average of the levels of education received by the board of directors in each year for each firm was taken.

The existing literature presents the calculation of this indicator as a natural log from the average value of the years spent by the person in question on training Wu et al. (2012b). However, in this study, such an approach is not possible due to the lack of such information in the database.

4.4.2. Military dummy

Based on the completed educational institution, this study presents an indicator that controls the military background of the director on the board of directors. So, if the manager in question graduated from a military educational institution, he is defined as having a military background in this study. Further, this variable takes on the value one if a director has military experience on the board of directors and 0 otherwise.

This calculation method differs from the way of determining the military background in Benmelech and Frydman (2015), where the authors define the military experience of directors if they served in the army. The authors conducted their research on the example of the United States and noted that by 2006 the percentage of those who served in the military was 6.2%. In Russia, service in the army is compulsory. It lasts one year, so this calculation method does not so clearly reflect the characteristics of the director that may be related to military discipline. In contrast, training at an army institute takes place for at least four years and can more reliably determine a person's characteristics.

4.4.3. Age

The indicator of the age of the board of directors in this study is calculated according to the method of calculation presented in previous studies, as a natural log from the average value of the age of the board of directors in years (Li et al., 2008; Wu et al., 2012b).

4.4.4. Tenure

According to the hypothesis presented by Weisbach (1988) and then tested by Shen and Cannella (2002), increasing directors' tenure increases their influence on the firm. Thus, depending on the board of directors' effectiveness, one can expect both positive and negative impacts of this indicator on the firm's performance.

Therefore, following You and Do (2012), in this study, the manager's tenure indicator for each director on the board is calculated as the total number of years during which the director was in office. The average of this value for the board of directors was taken.

4.5. Models development

The construction of models for regressions in this study takes place in several stages, adding dependent variables based on previous studies and studying the influence of political relationships on various indicators of a firm's performance and based on the results of linear regressions and the correlation between multiple variables.

4.5.1. Correlation

Table 1.*The Correlation Between Variables.*

	ROA	ROE	ROI	Leverag	Maturit	Tax	FirmSiz	FirmAg	CashHo	Collater	Educati	Age	Tenure	PCPasr	PCCur	PC1_pa	PC2_pa	PC1_cu	PC2_cu
	e			e	y		e	e	lding	al	on					st	st	r	r
ROA	1																		
ROE	0.4	1																	
ROI	0.84	0.425	1																
Leverage	-0.142	0.062	-0.095	1															
Maturity	-0.033	0.027	-0.024	0.477	1														
Tax	0.112	0.037	0.103	0.146	0.067	1													
FirmSize	0.199	0.123	0.182	0.559	0.423	0.283	1												
FirmAge	0.106	0.045	0.095	0.249	0.145	0.153	0.455	1											
CashHolding	0.16	0.078	0.132	0.023	0.023	0.037	0.223	0.072	1										
Collateral	0.099	0.001	0.08	0.129	0.227	0.181	0.483	0.281	-0.148	1									
Education	-0.069	-0.011	-0.067	0.092	0.108	-0.026	0.033	-0.059	0.028	-0.062	1								
Age	0.021	0.002	0.014	0.036	0.035	0	0.074	0.04	0.032	0.039	-0.075	1							
Tenure	0.06	-0.011	0.055	-0.104	-0.082	0.015	-0.03	0.075	-0.008	0.038	-0.404	0.237	1						
PCPast	-0.016	0.019	-0.005	0.063	0.051	0.008	0.042	-0.038	0.002	-0.006	0.198	-0.019	-0.234	1					
PCCur	0.004	0.014	0.011	0.058	0.038	0.01	0.064	0.003	0.002	0.032	0.069	0.039	-0.109	0.508	1				
PC1_past	-0.007	0.01	-0.002	0.031	0.054	-0.008	0.031	-0.028	0	-0.012	0.198	0.036	-0.159	0.523	0.29	1			
PC2_past	-0.019	0.015	-0.007	0.047	0.036	0.006	0.025	-0.029	-0.007	-0.016	0.191	-0.011	-0.226	0.896	0.513	0.473	1		
PC1_cur	-0.017	-0.001	-0.017	0.03	0.049	0.012	0.044	-0.002	0.001	0.006	0.062	0.05	-0.059	0.262	0.546	0.276	0.242	1	
PC2_cur	0.011	0.018	0.018	0.042	0.028	0.008	0.05	-0.001	-0.008	0.026	0.057	0.034	-0.098	0.506	0.957	0.268	0.52	0.448	1

Note. ROA – Return on assets ratio (profit before taxes divided by total assets); ROE – the return on equity ratio (Net profit/Capital and reserves); ROI - the return on investment ratio (EBIT/(capital and reserves + total liabilities)); Leverage - the ratio of total debt to company assets; Maturity - the ratio of long-term debt to total debt; Tax - the amount of taxes paid by the company to profit after taxes; FirmSize - log(Total assets); FirmAge - log(the number of years since incorporation); CashHolding - (Cash and cash equivalents + Short-term investments)/(TOTAL ASSETS); Collateral - the ratio of

*property, plant, and equipment to total assets; Education - average education level of board directors per company; Age - average age on the given year of board directors per company; Tenure – the average tenure of board directors per company; PCPast – political connection of the company before given year; PCCur – political connection of the company in the given year; PC1_past – political connection of the companies identified as the presence of a director who worked in the past as an official on the board of directors; PC2_past – political connection of the company identified as a connection of the board director with government companies in the past; PC1_cur – political connection of the company identified as the presence of government officials on the board of directors; PC2_cur – political connection of the company identify if at least one of board directors in the given year holds a position in a government company. **Bold** - correlation shows significance at least at the 10% level.*

Table 1 shows a significant correlation between the tested company performance indicators such as ROA, ROE and ROI. However, the table also shows a significant correlation between the types of political ties under consideration, so different political ties are tested separately. Also, the Table shows a negative statistically significant correlation between Past PC and ROA, while Current PC shows a statistically insignificant positive correlation. Also, both types of political ties described above show a statistically significant positive correlation with the return on equity. At the same time, for the ROI indicator, both types of political connections do not show a statistically significant relationship. All political ties under consideration are positively and statistically significantly correlated with leverage and maturity indicators. However, none of them shows a statistically significant correlation with the measure of the amount of taxes paid by the company.

4.5.2. Performance

Each of the models considered below was tested in several stages. The first is only with firm-level control variables. Further, with the addition of variables characterising the company's management, following studies such as Wu et al. (2012b), Li et al. (2008) and Muravyev, (2017). Therefore, following Wu et al. (2012b) and Muravyev (2017) for each model, at the second stage, a variable is added that controls the influence of the age of management on the company's performance. Also consistent with the research by Wu et al. (2012b), this paper adds a control variable for each model to show the level of leadership education. The third step in this study adds a control variable representing the manager's tenure following Li et al. (2008). Also, in this study, a control variable is used that reflects the manager's military background. As Benmelech and Frydman (2015) show, this leadership experience can influence the company's activities.

4.5.2.1. ROA

The construction of a regression model for the return on assets indicator, as mentioned above, was carried out in several stages. At the first stage, a regression model was adopted only with a variable showing the presence or absence of political ties in the organisation. Following Faccio (2010), Bussolo et al. (2018), Bertrand et al. (2004) added firm size as a control variable. Further, according to research by Wong and Hooy (2018), Wu et al. (2012b), Saeed et al. (2016), Duchin and Sosyura (2012), Otchere et al. (2020). leverage was added to the model as an independent control variable. The next step was to add a measure of the size of the board of directors, consistent with the study by You and Du (2012). According to Li et al. (2008), firm age was added to the model as a control variable. Following Boubakri et al. (2012), this study also uses collateral as a control variable for this model.

Also, considering the existing literature, the Cash Holding indicator was added to the regression model, affecting the company's return on assets.

We also added variables characterising the firm's leadership, such as Education, Age, Work experience and military experience.

Thus, the final model for the return on assets is expressed as:

$$ROA = PC + FirmSize + BoardSize + Leverage + CachHolding + Collateral + FirmAge + Manager'sAge + Manager'sEducation + Manager'sTenure + MilitaryManager + GovEntDummy + YearFE + IndustryFE, \quad (2)$$

where *PC* - the type of political connection (PC current - political connection in a given year, PC past - political connection before given year, *FirmSize* - firm size log(total assets), *BoardSize* - the log ratio of a number of directors on board, *Leverage* - the total debt to total assets, *CashHolding* - the ratio of cash and cash equivalents to total assets, *Collateral* - the ratio of property, plant, and equipment to total assets, *FirmAge* - the log of the number of years since incorporation, *Manager'sAge* - the log of average manager's age, *Manager'sEducation* - the log of the average of manager's level of education, *Manager'sTenure* - the log of average tenure, *MilitaryManager* - dummy variable equal to 1 if at least one of managers has a military background, *GovEntDummy* - the dummy variable that equal to 1 if the government has a share in the company.

4.5.2.2. ROE

The construction of the regression model for the return on equity is similar to the model for the return on assets due to the sufficient similarity of these indicators. However, existing studies were also analysed when compiling this model, focusing on the influence of political relations on the company's activities and considering the return on equity as a dependent variable. Since Menozzi et al. (2012) add board size and company size as control variables in their study, this study relies on them in this regard. Moreover, considering Russian companies Muravyev (2017) building a model for return on equity and the size of the board of directors, the company also uses the leverage ratio as a control variable. This study also uses leverage for this model. Finally, Li et al. (2008) use company age as a control variable in addition to the variables described above; in this study, we also add company age to the model.

Thus, the final regression model for the return on equity in this study is expressed as:

$$ROE = PC + FirmSize + BoardSize + Leverage + CachHolding + Collateral + FirmAge + Manager'sAge + Manager'sEducation + GovEntDummy + YearFE + IndustryFE, \quad (3)$$

Where *PC* - the type of political connection (PC current - political connection in a given year, PC past - political connection before given year, *FirmSize* - firm size log(total assets), *BoardSize* - the log ratio of several directors on board, *Leverage* - the total debt to total assets, *CashHolding* - the ratio of cash and cash equivalents to total assets, *Collateral* - the ratio of property, plant, and equipment to total assets, *FirmAge* - the log of the number of years since incorporation, *Manager'sAge* - the log of average manager's age, *Manager'sEducation* - the log of the average of manager's level of education, *GovEntDummy* - the dummy variable that equal to 1 if the government has a share in the company.

4.5.2.3. ROI

We alternately added independent ones according to the return on assets model to build a regression model for this indicator since these two indicators have a high statistically significant correlation, except for the indicator of the company's age. It is also worth adding that measures of company size and board size are also used by Menozzi et al. (2012) as control independent variables.

Thus, the regression model is expressed as:

$$ROI = PC + FirmSize + BoardSize + Leverage + CachHolding + Collateral + Manager'sAge + Manager'sEducation + GovEntDummy + YearFE + IndustryFE ,$$

(4)

Where *PC* - the type of political connection (PC current - political connection in a given year, PC past - political connection before given year, *FirmSize* - firm size log(total assets), *BoardSize* - the log ratio of several directors on board, *Leverage* - the total debt to total assets, *CashHolding* - the ratio of cash and cash equivalents to total assets, *Collateral* - the ratio of property, plant, and equipment to total assets, *Manager'sAge* - the log of average manager's age, *Manager'sEducation* - the log of the average of manager's level of education, *GovEntDummy* - the dummy variable that equal to 1 if the government has a share in the company.

4.5.3. Leverage

To build a regression model to assess the impact of political relationships on the level of borrowed capital to total assets in this study, at the first stage, the variables PC and FirmSize are used, following Faccio (2010) and Bussolo et al. (2018). This study further follows Wu et al. (2012b) and uses the return on assets as the independent control variable. Further to the available control variables, following Kostovetsky (2015), this study adds the Cash holding indicator. Finally, following Boubakri et al. (2012), we add the Collateral metric to the model.

Thus, the regression model for leverage is expressed as:

$$\text{Leverage} = PC + FirmSize + BoardSize + ROA + CashHolding + Collateral + FirmAge + Manager'sAge + Manager'sEducation + GovEntDummy + YearFE + IndustryFE, \quad (5)$$

Where *PC* - the type of political connection (PC current - political connection in a given year, PC past - political connection before given year, *FirmSize* - firm size log(total assets), *BoardSize* - the log ratio of a number of directors on board, *ROA* - Profit before taxes divided by total assets, *CashHolding* - the ratio of cash and cash equivalents to total assets, *Collateral* - the ratio of property, plant, and equipment to total assets, *FirmAge* - the log of the number of years since incorporation, *Manager'sAge* - the log of average manager's age, *Manager'sEducation* - the log of the average of manager's level of education, *GovEntDummy* - the dummy variable that equal to 1 if the government has a share in the company.

4.5.4. Maturity

To model maturity, this study follows Boubakri et al. (2012). It includes the variable for whether an orgis is an animation only connected or not and company size and collateral in the model.

Thus, the regression model for this indicator is expressed as:

$$\text{Maturity} = PC + FirmSize + Collateral + Manager'sAge + Manager'sEducation + Manager'sTenure + MilitaryManager + GovEntDummy + YearFE + IndustryFE, \quad (6)$$

Where *PC* - the type of political connection (PC current - political connection in a given year, PC past - political connection before given year, *FirmSize* - firm size log(total assets), *Collateral* - the ratio of property, plant, and equipment to total assets, *Manager'sAge* - the log of average manager's age, *Manager'sEducation* - the log of the average of manager's level of education, *Manager'sTenure* - the log of average tenure, *MillitaryManager* - dummy variable equal to 1 if at least one of managers has a military background, *GovEntDummy* - the dummy variable that equal to 1 if the government has a share in the company

4.5.5. Tax

This study's regression modelling for the tax rate ratio begins by adding the test variable PC and the company size variable as a control variable following Faccio (2010). Further, according to research by Wu et al. (2012b) and Francis et al. (2016), the existing control variable has been added to the return on assets as a dependent variable, as operating performance influences the firm's need for tax evasion. Further, to analyse the impact of political ties on the amount of taxes

paid by a company, in this study, according to Kim and Zhang (2016), the cash holding indicator is added as a control independent variable.

Thus, the model for the indicator of the amount of taxes paid by the company is expressed as:

$$Tax = PC + FirmSize + BoardSize + Leverage + ROA + CachHolding + Manager'sAge + Manager'sEducation + GovEntDummy + YearFE + IndustryFE, \quad (7)$$

where *PC* - the type of political connection (PC current - political connection in a given year, PC past - political connection before given year, *FirmSize* - firm size log(total assets), *BoardSize* - the log ratio of number of directors on board, *Leverage* - the total debt to total assets, *ROA* - Profit before taxes divided by total assets, *CashHolding* - the ratio of cash and cash equivalents to total assets, *Manager'sAge* - the log of average manager's age, *Manager'sEducation* - the log of the average of manager's level of education, *GovEntDummy* - the dummy variable that equal to 1 if the government has a share in the company

Chapter 5. Data Description

The primary data source for our empirical analysis is the Spark3 database, owned by the most extensive information group in the post-Soviet space, created in 1989 - Interfax. We receive information on the composition of the board of directors and the annual financial statements. From these documents, we extract the following financial indicators: profit (loss) before tax, total assets, net income, equity and reserves, total liabilities, long-term liabilities, current liabilities, company age in years, fixed assets, cash and cash equivalents, short-term investments are collected using the SPARK-Interfax database. The Spark database has previously been used in studies focused on Russian sample data, such as Muravyov (2017), Muravyov et al. (2014) and Iwasaki (2008, 2013, 2014).

According to the results of previous studies, there has been an increase in the politicization of companies since 1999. The calculated phenomenon is the condition for which a given year was chosen as the study's starting point under consideration for this period. Another reason is the change of power between 2008 and 2012. Also, during the melon period, Dmitry Medvedev's policy was directed at officials from the boards of directors of companies, which changed dramatically in 2012 during Vladimir Putin's third term. The third reason is the limited information available on the financial performance of enterprises, which existed until December 1991 and the transition to a market economy, privatisation, division of property and the formation of a new state from 1991 to 1999. Thus, we are considering 1148 Russian companies from 1999 to 2019.

The sampling of our companies began with uploading a list of all Russian companies existing in the database, which was about 12 million. Then, following Muravyov (2017) example and for the possibility of further correlation with the Eikon database, companies with a stock ticker were selected. Thus, we got more than 3 thousand publicly traded companies and companies that have participated in the auction in the past. Further, based on the list of company data for each company, data on the board of directors were manually collected.

Following the example of Muravyov (2017), for the purposes of this study, board information, which is used to determine whether companies have political connections and management metrics, is extracted from the company's quarterly reports. To improve the accuracy of determining the influence of politically connected directors, according to Muravyov (2017), second-quarter statements are taken since they are published at the end of June and usually contain information on the results of general meetings of shareholders held in March and June. Thus, data

³ Spark is a Russian database, which provide data from quarterly and annual reports of companies in semi-processed and aggregated forms, contained information from 1992.

on the board of directors includes the composition of the board of directors who make strategic decisions for most of the year.

Since not all Russian companies have a board of directors, the sample was narrowed down to 1148 companies for which the data was present. Although for each director on the board of directors, SPARK provides information about his previous jobs, this information makes it possible to determine with sufficient accuracy whether companies have political ties. Further, financial information was downloaded for these companies, namely the balance sheet and the financial results statement. After matching the two datasets based on the unique company ID and year, we obtained a sample of 19707 observations, containing an average of 938 firms each year.

Figure 1.

The Distribution of Observations Over Time.

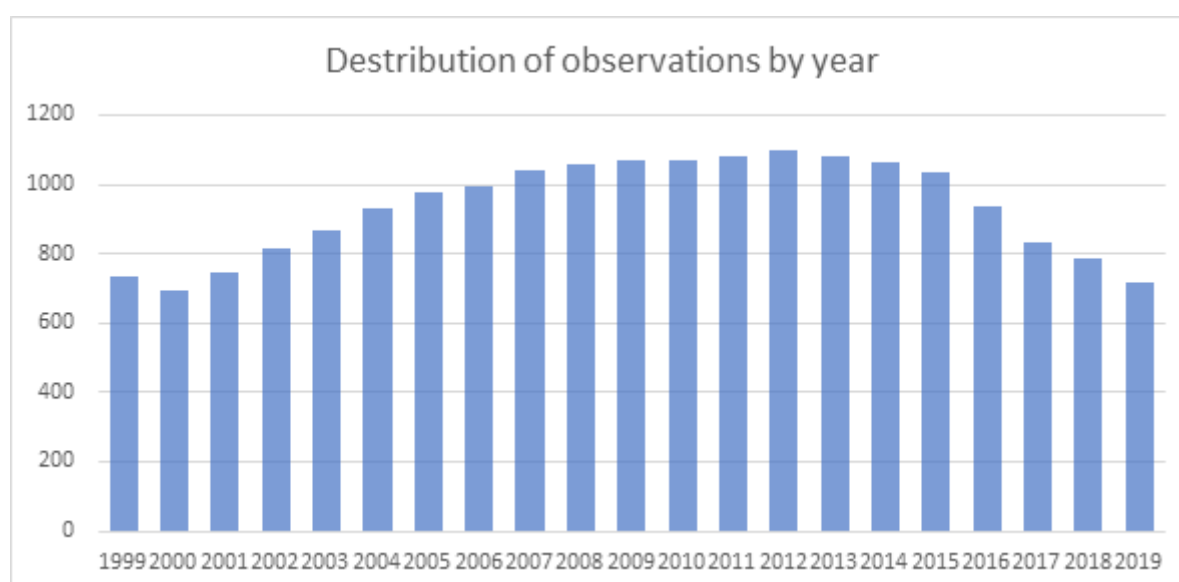


Figure 1 shows the distribution of observations over time. According to this, our data are pretty uniform. However, several changes can be seen over the years. One example is the decrease in the number of observations from 1999 to 2000. According to Muravyov, this effect can be explained by reorganising the government's economic sectors in the 2000s. The subsequent stable increase in the number of observations, which lasted until 2010 - 2011, can be explained by the dissolution of local monopolies for distribution and generating companies (Muravyov, 2017). Also, the decline in 2012 is consistent with Muravyov's research and can be explained by the changed government policy that increases horizontal mergers.

The geographical classification of the companies in question is based on the constituent entities of the Russian Federation and the Federal Districts. According to the constitution, the

Russian Federation is a federal state. It consists of 85 federal subjects, including various territorial units such as republics, regions, cities of federal significance, autonomous regions and districts and territories. Therefore, according to this definition, our sample represents 75 out of 85 constituent entities of the Russian Federation. Further, based on the concept of federal districts, which President Putin introduced in 2000, the subjects of the Russian Federation can be combined into 12 federal districts, all of which are present in our sample.

Figure 2.

The Distribution of Observations by Macro-Regions.

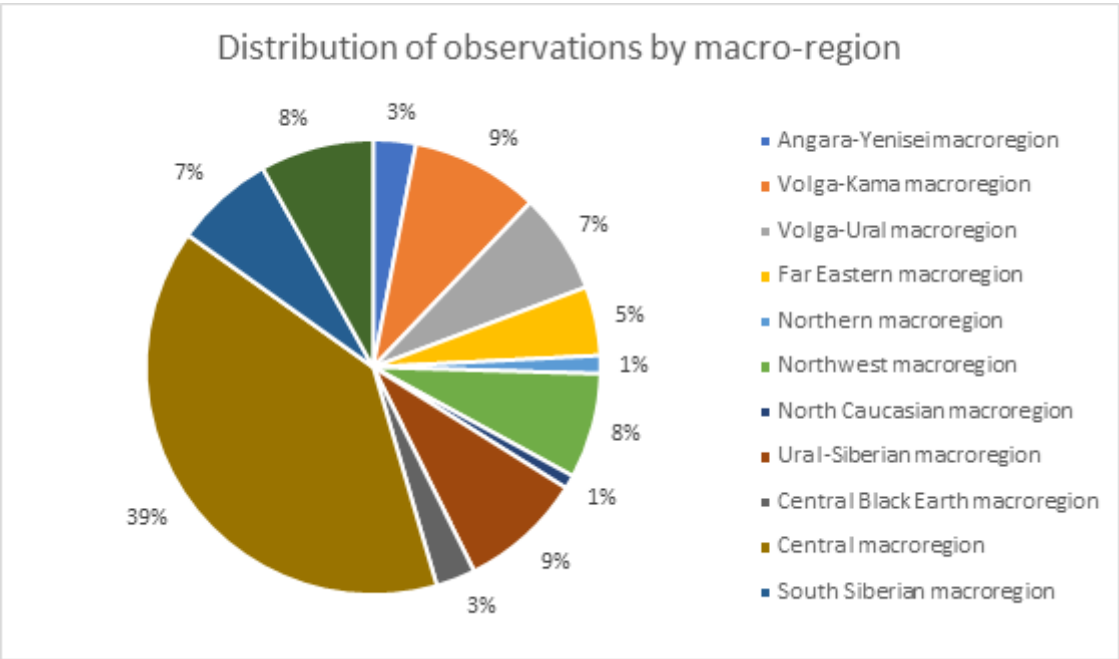


Figure 2 shows that the most significant number of observations are in the Central Federal District, 39%, consistent with Muravyov's (2017) study and confirms his argument about the tendency towards centralising economic activity in Russia.

In our sample, a code of the all-Russian classifier of types of economic activity was collected to determine the company's industry. This code is received by the company during registration and legally defines the scope of its activities. It is also used for statistics accounting and analysis and shows whether an enterprise is eligible for tax benefits or the choice of a particular tax regime. According to this specification, there are 360 different activities in our sample. Further, the types of activities were combined into 65 classes according to the structure of the all-Russian classifier of the kinds of activities to avoid an inaccurate definition of the company's industry. Then, following Muravyev (2017), the classes of activities were combined into 18 groups. Thus, our sample represents companies from 18 industries.

Figure 3.

The Distribution of Observations by Industry.

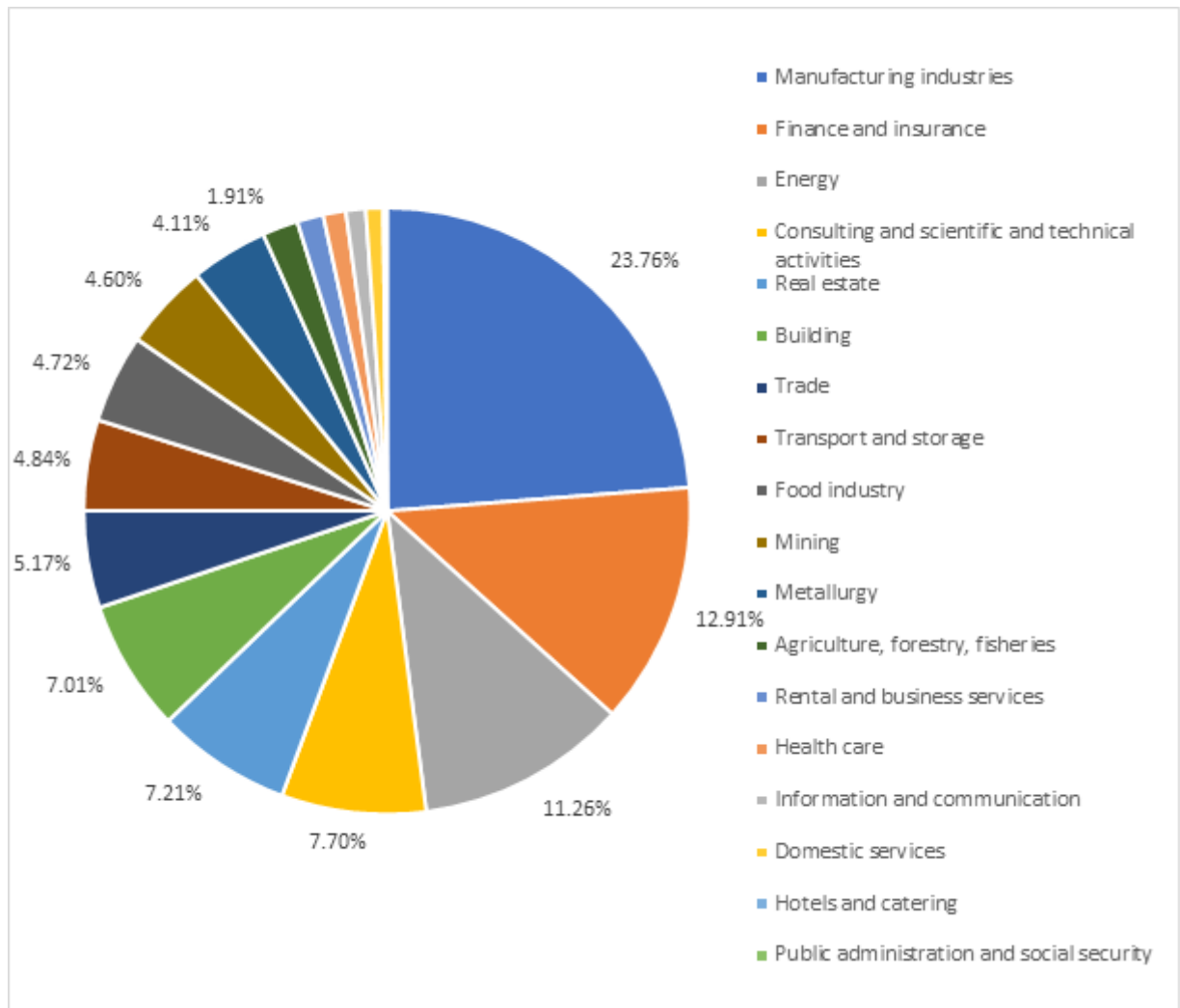


Figure 3 illustrate that most of our sample is represented by companies from the Manufacturing industry (23.71%), Finance (12.91%) and energy industries (11.26%). This distribution of the number of observations is comparable to Muravyov (2017) study. Although the distribution of the most significant number of observations in his sample is somewhat different, the industries with the most important number of observations in his study are Electricity, gas and water (23.35%), Manufacturing (21.07%) and communications (12.09%).

Most of the limited number of studies examining the problem of the influence of political connections on the efficiency of firms was limited only to firms traded on the Moscow stock exchange: 204 companies between 2011 and 2015 (Trifonov, 2021), 114 companies between 2004-2011 (Szakonyi, 2018), 500 businesspeople between 2004 and 2011 (Grigoriev & Zhirkov, 2020). The narrowness of the sample is mainly explained by the narrowness of companies that hold most national wealth. Our data were collected over a broader period and included large and

relatively small companies that have lost some of their influence over time. This sample allows us to more accurately determine the effect of company size on the impact of political ties and also to examine their effects on a broader range of companies. Therefore, the research limitations on the Russian sample and conflicting results make our study especially relevant.

5.1. The distribution of political connection

The data shows that 48% of politically connected firms in Russia. This number correlates with Trofimov's study (2021). He indicates 43% of politically connected firms for 2015 and speaks of an increase in politically connected firms since the 2000s. Faccio (2006), looking at a relatively limited number of the largest Russian companies, shows that politically connected firms occupy more than 80% of market capitalisation. Referring to international research, Boubakry et al. (2008), looking at a sample of companies based in 27 developing and 14 developed countries, found just over 35% of companies with politically connected directors for 1980-2002. It is relatively higher than the indicators of politicisation in other countries. For example, in China, Fan et al. (2007) show that about 27% of executives directly relate with the state in China, either as officials in the past or currently in government positions.

Since the 90s of the 20th century, Russia had undergone a transition from the collapsed planned economy of the USSR, when all enterprises were owned and controlled by the state, to a market economy. During this period, the state avoided interference in the management of privatised enterprises and took measures to stimulate the development of market relations. This period of instability came to an end in the early 2000s. As studies show, starting in 1999, after the transfer of power to Vladimir Putin, the state established control over enterprises. As Trifonov (2021) notes in his research, referring to (Editorial 2017), for 2017, the share of state property was 70%. This share of state participation in the economy is confirmed by the most recent report of the Federal Antimonopoly Service 2019. Also, as noted in this report, in the period from 2010 to 2016, the share of state participation in corporate governance was decreasing, which contradicts the empirical data of our study and the results of Trifonov (2021) and previous research conducted on the example of the Russian Federation. This effect can be explained by an attempt to maintain a favourable image of the government, one of the authoritarian regimes' features.

Figure 4.

The Distribution of Political Connections by Years.

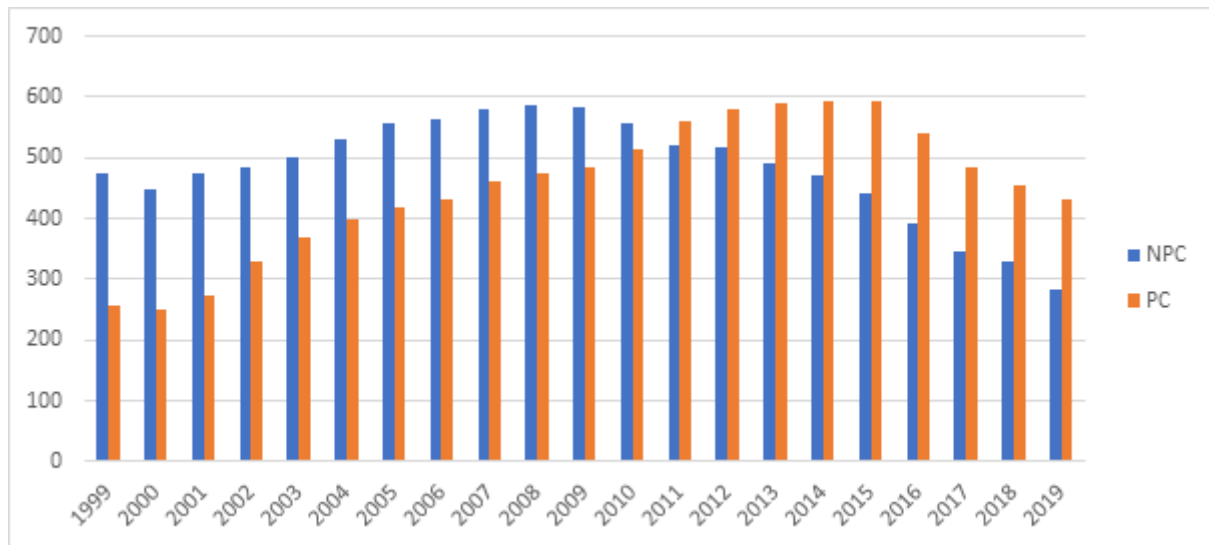


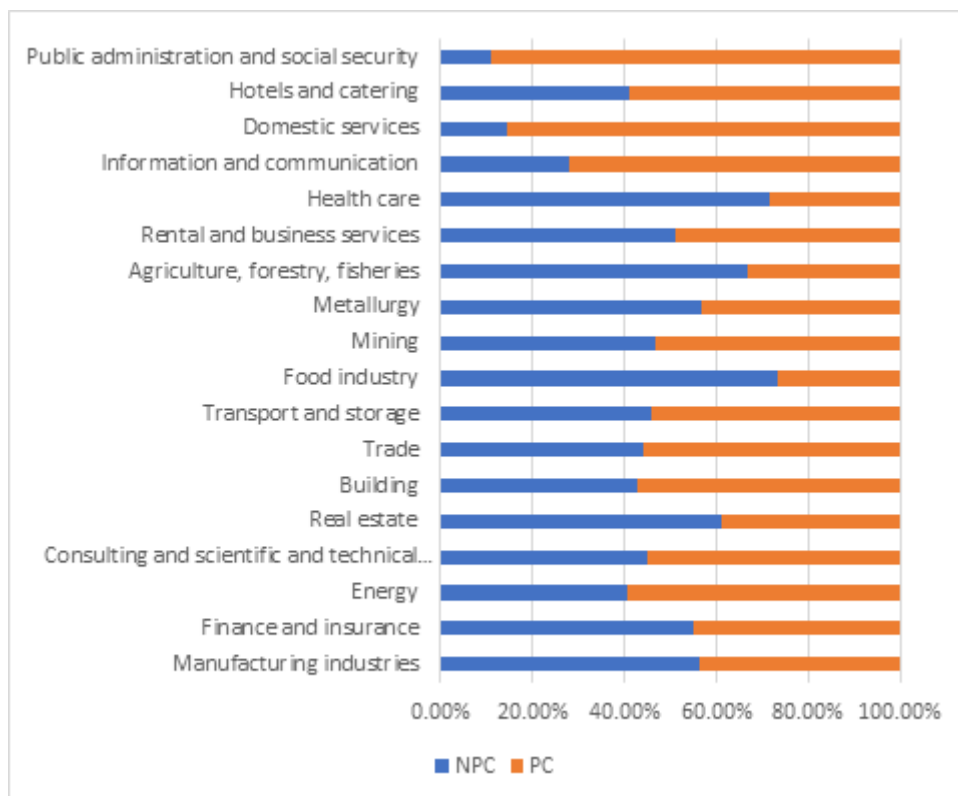
Figure 4 shows steady and moderate growth in companies' number of politically connected directors until 2010. It is worth noting that in the period 2010 and 2011, there was an establishment of the prevalence of politically related companies over politically unrelated ones. There has also been an increase in the growth rate of politically connected companies between 2010 and 2013. Trifonov (2021) observes a similar effect of increased politicisation by 2013. Still, he notes a sharp increase in the number of politically connected directors during this period, while our data show only an increase in the growth rate. These differences can be explained by our sample's prevailing number of observations. Also, in his research, the author notes a tendency towards an increase in the politicisation of companies since 2013. Our data also reflects this trend, which continues until 2015.

Interestingly, despite the decline in politically connected firms since 2015, their number still significantly exceeds the number of politically unconnected companies. There has also been a rapid decline in the number of politically unrelated firms since 2009. This phenomenon contradicts the anecdotal evidence that during the period of Dmitry Medvedev's rule from 2008 to 2012, officials were removed from the management of companies.

Our data also show the predominance of politically unrelated companies in the pre-2010 period. In comparison, the smallest number of politically connected firms was observed in 2000. This effect can be explained by the change of government and the consequences of the privatisation of state property, which was carried out after the end of the existence of the USSR by Boris Yeltsin.

Figure 5.

Distribution of Political Connections by Industry.



In their study, Civilize et al. (2015) show the most substantial influence of political ties in the context of significant state control of access to limited sales markets, changes in regulation, and the allocation of resources. In a study based on the example of Thai companies, the authors also note the uneven distribution of politically related companies depending on the industry. While some industries tend to have politically affiliated firms, others do not. In our sample, the share of political affiliation shows different values depending on the industry.

Figure 5 shows the ratio of politically connected to non-politically affiliated companies in each of the considered industries. Thus, the most politicised industry is Public administration and social security, which indirectly confirms this study's definition of political ties. The following most politicised industries are information and communication and Domestic services, which ensures the anecdotal evidence that no private, politically unrelated companies operate in these areas. Significant politicisation of information and communication may be due to the tendency for the government to gain control over information resources. An illustration can be the well-known case of the violent seizure and nationalisation of the Media-Most media holding and, in particular, the largest private channel NTV in 2001. Thus, since the beginning of the presidency of President Putin, the politicisation of the Information and communication industry has increased, which is reflected in the data presented.

Also, the prevalence of political affiliation is observed in the industries associated with the extraction and distribution of energy resources (59.5%) and minerals (53.3%). As well as in the industries of Hotels and catering (59.1%), construction (57.1%), transport and storage (54.1%), trade (55.9%) and Consulting and scientific and technical activities (55.2%)

Table 2.

The Distribution of Political Connections by Industry.

Industry	NPC	PC
Manufacturing industries	13.36%	10.40%
Finance and insurance	7.12%	5.79%
Energy	4.57%	6.70%
Consulting and scientific and technical activities	3.44%	4.25%
Real estate	4.40%	2.81%
Building	3.01%	4.01%
Trade	2.28%	2.89%
Transport and storage	2.22%	2.62%
Food industry	3.46%	1.27%
Mining	2.15%	2.45%
Metallurgy	2.33%	1.78%
Agriculture, forestry, fisheries	1.27%	0.64%
Rental and business services	0.71%	0.69%
Health care	0.87%	0.34%
Information and communication	0.30%	0.75%
Domestic services	0.13%	0.79%
Hotels and catering	0.05%	0.07%
Public administration and social security	0.01%	0.08%

Note. NPC - companies without political connection, PC - politically connected companies.

These results correlate with the ratio of political ties to the total number of industries presented in Table 2. However, this review shows the greatest politicisation in the industries of Manufacturing industries (10.4%), Finance and insurance (5.8%) and Energy (6.7%). At the same time, the industries with the most significant increase in the share of politically connected companies over politically unrelated ones are Energy (2.13%) and Building (1%). In the rest of the most politicised industries, the share of politically connected companies exceeds the share of politically not connected by less than 1%. In his research, Trifonov (2021) also points out that the most politicised industries are energy, which he defines as "oil and gas", and banking and insurance. Also, Trifonov (2021) notes that aviation is one of the most politicised areas; in our sample, this industry is mainly defined as transport and has a predominant share of political ties.

Chaney et al. (2011) note the highest concentration of politically related companies in the central regions in 19 countries out of 20. Trifonov (2021), except for state-owned enterprises, arrives at the same results considering the example of Russian companies. Our data also shows the

most significant number of politically related companies in the Central macroregion, Moscow's capital.

Table 3.

The Distribution of Political Connections by Macro-Regions.

Macro-region	NPC	PC
Angara-Yenisei macroregion	3.19%	2.79%
Volga-Kama macroregion	8.73%	9.56%
Volga-Ural macroregion	6.19%	8.08%
Far Eastern macroregion	4.28%	5.49%
Northern macroregion	1.38%	1.16%
Northwest macroregion	8.18%	6.65%
North Caucasian macroregion	0.50%	1.44%
Ural-Siberian macroregion	9.03%	8.47%
Central Black Earth macroregion	2.41%	3.10%
Central macroregion	37.61%	40.83%
South Siberian macroregion	8.53%	5.42%
Southern macroregion	9.45%	6.44%
Unknown	0.52%	0.58%

Note. NPC - companies without political connection. PC - politically connected companies.

Table 3 shows that politically connected companies' share exceeds politically unconnected ones by 3.22% in this macroregion. Also, the most politicised macroregions in our sample are the Volga-Ural and Far Eastern macroregion, where the share of politically connected companies exceeds the share of politically unconnected ones by more than 1%. In his study, Trifonov (2021) suggested that the location of politically related companies may depend on where natural resources are mined, as evidenced by the predominance of politically associated companies in the Volga-Ural and Far Eastern macroregion, as natural resources prevail. In Volga-Ural, this is the extraction of aluminium and titanium and cooking and potassium salts, and in the Far Eastern macro-region, it is non-ferrous and ferrous metallurgy.

5.2. Describe statistic

The available data allows us to identify several vital variables for assessing the presence of political relationships in a company and their impact on the activities of companies. This section discusses the main variables and results of descriptive statistics.

In our research, we focus on analysing indicators such as ROA, ROE and ROI to analyse the performance of companies. However, none of the studies of the influence of political ties on the activities of companies conducted on the example of Russian companies presents these indicators. For instance, Trifonov (2021) shows a situational analysis examining abnormal returns'

market reaction for political connections. Szakonyi (2018) looks at the change in revenue and profit margin in the final year of the term. Grigoriev and Zhirkov (2020) choose the natural log of assets as the dependent variable. Thus, checking the indicators of descriptive statistics, we compare them with the study by Muravyev (2017), which considers the corporate governance of Russian companies more broadly.

Table 4.

The Summary Statistics and Comparison Between Politically Connected and Non-Connected Firms.

Panel A.

Variable	N	Mean	5th Pct	Median	95th Pct	Std
ROA	19623	0.052	-0.101	0.016	0.296	0.131
ROE	19623	0.086	-0.208	0.032	0.559	0.367
ROI	19623	0.034	-0.070	0.012	0.188	0.090
Leverage	19623	0.354	0.000	0.286	0.977	0.345
Maturity	19623	0.177	0.000	0.028	0.753	0.256
Tax	19623	0.207	-0.077	0.204	0.820	0.359
FirmSize	19623	16.887	0.000	20.493	24.872	8.840
FirmAge	19623	3.025	2.079	3.277	3.350	0.705
CashHolding	19623	0.076	0.000	0.001	0.402	0.155
Collateral	19623	0.232	0.000	0.177	0.701	0.234
Education	19623	1.154	0.000	1.200	2.706	1.025
Age	19623	48.046	32.667	48.000	65.000	10.827
Tenure	19623	12.900	3.000	12.500	24.000	6.460
PC1_past	19623	0.162	0.000	0.000	1.000	0.369
PC2_past	19623	0.359	0.000	0.000	1.000	0.480
PCPast	19623	0.393	0.000	0.000	1.000	0.488
PC1_cur	19623	0.132	0.000	0.000	1.000	0.338
PC2_cur	19623	0.318	0.000	0.000	1.000	0.466
PCCur	19623	0.337	0.000	0.000	1.000	0.473

Panel B.

	PC		Non PC		Difference	
Variable	Mean	Median	Mean	Median	DMean	DMedian
ROA	0.051	0.017	0.053	0.015	0.001	-0.002
ROE	0.091	0.037	0.082	0.028	-0.01*	-0.008***
ROI	0.034	0.013	0.034	0.011	-0.0	-0.002
Leverage	0.373	0.318	0.336	0.250	-0.037***	-0.067***
Maturity	0.187	0.038	0.168	0.020	-0.019***	-0.017***
Tax	21.001	20.509	20.472	20.254	-0.529	-0.255
FirmSize	17.276	20.892	16.529	20.157	-0.747***	-0.735***
FirmAge	3.001	3.277	3.047	3.296	0.046***	0.019***
CashHolding	0.076	0.000	0.076	0.001	-0.0	0.001
Collateral	0.233	0.168	0.231	0.184	-0.002	0.017
Education	1.312	1.333	1.009	1.000	-0.303***	-0.333***
Age	48.033	48.000	48.058	48.222	0.025	0.222*

Tenure	11.583	11.000	14.115	14.000	2.532***	3.0***
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Panel C.

Variable	PCPast		PCCur		Difference	
	Mean	Median	Mean	Median	DMean	DMedian
ROA	0.047	0.013	0.064	0.02	0.016***	0.007**
ROE	0.088	0.027	0.072	0.03	-0.015	0.003
ROI	0.03	0.01	0.039	0.014	0.009**	0.004**
Leverage	0.353	0.274	0.339	0.259	-0.014	-0.016
Maturity	0.185	0.031	0.158	0.022	-0.028***	-0.009**
Tax	20.184	20.027	20.687	20.94	0.503	0.913*
FirmSize	16.464	20.863	16.802	20.382	0.338	-0.481***
FirmAge	2.911	3.277	3.039	3.296	0.128***	0.019***
CashHolding	0.082	0	0.074	0.003	-0.008	0.003
Collateral	0.204	0.121	0.24	0.192	0.036***	0.071***
Education	1.441	1.6	0.865	0.727	-0.576***	-0.873***
Age	46.342	46.127	48.942	49.8	2.6***	3.673***
Tenure	10.622	10	14.13	14	3.508***	4.0***

Note. Panel A represents summary statistics over all samples. Panel B describe statistics and difference between a sample of politically connected and politically nonconnected companies. Finally, panel C illustrates statistics and differences between companies with present political connections and companies with political connections in the past. ROA – return on assets ratio (profit before taxes divided by total assets); ROE – the return on equity ratio (Net profit/Capital and reserves); ROI - the return on investment ratio (EBIT/(capital and reserves + total liabilities)); Leverage - the ratio of total debt to company assets; Maturity - the ratio of long-term debt to total debt; Tax - the amount of taxes paid by the company to profit after taxes; FirmSize - log(Total assets); FirmAge - log(the number of years since incorporation); CashHolding - (Cash and cash equivalents + Short-term investments)/(TOTAL ASSETS); Collateral - the ratio of property, plant, and equipment to total assets; Education - average education level of board directors per company; Age - average age on given year of board directors per company; Tenure – average tenure of board directors per company; DMean – the deference of variables means with t-test; DMedian – the difference between variables medians with Kurskal-Wallis; PCPast – political connection of the company before given year; PCCur – political connection of the company in the given year; PC1_past – political connection of the companies identified as presence of director who worked in the past as an official on the board of directors; PC2_past – political connection of the company identified as connection of the board director with government companies in the past; PC1_cur – political connection of the company identified as presence of government officials on the board of directors; PC2_cur – political connection of the company identify if at least one of board directors in the given year holds position in government company.

** Significant at the 10% level*

*** Significant at the 5% level*

**** Significant at the 1% level*

Panel A in Table 4 illustrates descriptive statistics for the main dependent and independent variables.

The data show that the average return on assets (ROA) is slightly more than 5%; in Muravyev (2017) work, this indicator for the most prominent Russian companies in his sample is 9%. It can be explained by a different set of analysed companies and a broader period under consideration. So in the study of Muravyov, there are on average 3704 observations, while in our study, we consider 19623 observations for all indicators. However, the median value of this indicator in our sample is almost 2%; in Muravyov's study, this value is 6%. Our study's standard deviation indicator for ROA is 13%; in Muravyov's analysis, this indicator is 11%.

The return on equity (ROE) indicator is also comparable to the data of Russian companies presented by Muravyov (2017). So the average value of this indicator in our study is 9%, which can be compared with the same indicator in Muravyov's study of 10%. On the other hand, the median ROE is 3%, which is significantly different from the value of this indicator in the study by Muravyov (6%). However, it should be noted that in both cases, the median return on equity is below the average. Also, the value of this indicator, one of the comparative criteria, can be the percentage of alternative profitability that the owner could receive by investing his capital in another business.

A classic example would be a bank deposit. In Russia for 2021, the maximum annual bank deposit rate is about 8%, and the average is slightly less than 6%⁴, so based on this indicator, our sample represents even less profitable companies, compare to Muravyov (2017), however still profitable, compare with banks deposit. However, it should be noted that the value of this indicator can be caused by a large share of borrowed capital and a small share of equity, which can negatively impact the organisation's financial stability. The standard deviation indicator in this study is 37%; in the study of Muravyov, this value is lower and is 23% compare with banks deposit. However, it should be noted that the value of this indicator can be caused by a large share of borrowed capital and a small share of equity, which can negatively impact the organisation's financial stability. The standard deviation indicator in this study is 37%; in the study of Muravyov, this value is lower and is 23% compare with banks deposits. However, it should be noted that the value of this indicator can be caused by a large share of borrowed capital and a small share of equity, which can negatively impact the organisation's financial stability. The standard deviation indicator in this study is 37%; in the study of Muravyov, this value is lower and is 23%.

⁴ Based on the values of the deposit rates of 67 Russian banks as of 08/26/2021 (Appendix2)

Another metric that can be verified by comparison with previous research is the leverage ratio. In our study, this indicator is about 35%, which in Muravyov's study is 43%. The median value of this indicator is also lower than in the data presented by Muravyov, almost 29% in this study versus 42%. It is worth noting that median values are below average in both studies. These values indicate that most of the company's activities are financed from its assets. In both cases, the values are close to approximate 0.5%⁵, which means the probable financial stability of the companies in the sample. The standard deviation value, as well as in the indicators considered above, is higher than in the compared study. In this case, the standard deviation rate is 34%. Thus, the data presented in this study is comparable to the most relevant study conducted on the example of Russian companies.

The return on invested capital (ROI) is also used to assess the performance of companies in our survey following Menozzi et al. (2012). Although the authors conduct their research on the example of Italian firms, the values of this indicator are comparable to the values presented in our study. For example, the average ROI in our study is 3%; in the compared study, this value is 7%. Furthermore, the median value of this indicator in our study is 1%; in a study conducted on the example of Italian firms, the value of this ratio is 5%. Accordingly, it can be assumed that Russian companies use investment capital less efficiently than Italian ones.

Our study also uses the Maturity metric presented by Boubakri et al. (2012). However, the authors in their research focus on the change in this indicator within three years from the establishment of political ties by the organisation, while for our study, this indicator is defined as the ratio of long-term debt to total debt in the reporting period. The average value of this indicator is 18%, the median is 3%, and the standard deviation is 26%.

To analyse the influence of political relations on the amount of taxes paid by a company, this study, following Faccio (2010), uses the Tax indicator, which is defined as the ratio of income taxes divided by pre-tax income. Panel A of Table 4 shows that the average of this indicator is 21%, the median is 20%, and the standard deviation equals 36% is practically the average deviation of ROA in our sample.

Table 4 Panel B presents summary statistics illustrating the differences between politically connected by politically unrelated firms. Here, politically connected firms are defined according to the classic Faccio view (2010, 2006). More precisely, politically connected firms have a director who is a current politician or who has held a politically connected position in the past.

⁵ <https://www.investopedia.com/articles/investing/080113/understanding-leverage-ratios.asp>

Although the ROA performance indicator has similarities for politically connected (5.1%) and unrelated firms (5.3%), this difference is not statistically significant according to the results of the t-test. However, it is worth noting that the return on assets of politically unrelated firms still exceeds that of politically connected firms. This result is consistent with previous studies such as Saeed et al. (2016), Faccio (2010, 2006), Boubakri et al. (2008), Kim and Zhang (2016). Also, this difference in the productivity of politically connected and unrelated firms contradicts the results of Boubakri et al. (2012), Faccio (2017), and Kim and Zhang (2016).

The next performance metric considered in this study is the return on equity (ROE). The average value of this indicator for politically connected firms exceeds the average value for politically unrelated ones by 1%, and this difference is statistically significant at 10% confidence. Also, the median value of this indicator for politically connected firms is 3.7%, which is almost 1% higher than the value of this indicator for politically unrelated firms, which is 2.8%. In addition, the statistical significance of this difference is even higher than the statistical significance of the difference in mean values. It shows that these results are significant in the 1% interval. These results are consistent with those of the study by Saeed et al. (2016).

As mentioned earlier in this study, the return on investment (ROI) is used to assess performance. As the results show, the average ROI values presented in Table 3, Panel B, do not differ for politically connected and unrelated firms and amount to 3.4%. Also, the natural assessment of the difference in these values does not show statistical significance. The median value of this indicator for politically connected firms is 1.3, which is 0.2% higher than for politically unconnected firms. However, the Kruskal-Wallis Cytheria for the median does not show any statistical significance of this difference.

Table 3 Panel B shows statistically significant differences in mean leverage values for politically related and unrelated firms. The average value of this indicator for politically connected firms is 37.3%, which is 3.7% higher than the given value for politically unrelated firms, which is 33.6%. The difference between the median leverage values for politically connected and unrelated firms also shows high statistical significance, 31.8% and 25%, respectively. The difference is 6.7% and is highly statistically significant as measured by the Kruskal-Wallis test. These results support the findings of past studies such as Saeed et al. (2016), Faccio (2010, 2006), Boubakri et al. (2008), Kim and Zhang (2016). However, the findings of Brockman et al. (2013) and Bliss et al. (2018).

The difference between the Maturity values for politically connected and unrelated firms shows solid statistical significance for both the average and median values. Comparison of these indicators shows superior results for politically connected firms, with an average maturity value

of 18.7%, while this value is 16.8% for politically unrelated firms. Also, the median values for politically connected and unrelated firms are 3.8% and 2%, respectively. These results are consistent with study resultstudy by Boubakri et al. (2012). The authors present this indicator and show similar results comparing the average and median values of politically connected and unrelated firms. However, their study shows a less high statistical significance of the difference in these indicators. The difference in mean values in their study is statistically significant at the 5% level versus 1% in our rese. The difference in median values shows statistical significance at the 10% level versus 1% in our study.

Moreover, despite the results presented in past studies on a statistically significant difference in the amount of taxes paid by politically related companies from politically unrelated ones, the results of this study do not show the statistical significance of this difference. However, the average value of the tax ratio exceeds the average value of this indicator for politically unrelated firms by 0.53% and is equal to 21% and 20.5%, respectively. Also, the median value of this indicator for politically connected firms exceeds this value for politically unrelated ones by 0.25% and is 20.5%. Thus, this tax ratio of politically bound firms to politically unrelated firms is consistent with Faccio (2010) findings and Boubakri et al. (2012).

Table 4 Panel B shows that politically related companies are large compared to politically unrelated companies. This indicator is calculated as a natural logo from the firm's assets, as in most previous studies, and is used as one of the control variables (Duchin & Sosyura, 2012; Kostovetsky, 2015; Sun & Zou, 2021; Jia et al., 2019; You & Du, 2012; Khwaja & Mian, 2005; Saeed et al., 2016; Joni et al., 2020; Wu et al., 2012; Wong & Hooy, 2018). The average values of this indicator for politically connected firms exceed politically unrelated firms by 0.747 and are 17.276 and 16.592 and politically connected and unrelated firms, respectively. Median firm size indicators show more minor differences among politically connected (20, 892) and politically unrelated companies (20,157). This difference is 0.735 and is statistically significant at the 1% level. These results are consistent with Kostovetsky (2015) and Faccio et al. (2006), which show that larger firms are more likely to be politically connected. Because, as Faccio et al. (2006) argue, such firms may be more critical to the national economy.

Additionally, in his study, Trifonov (2021) shows, unlike American, Indonesian and Thai firms, the age of Russian companies does not differ significantly between politically related and unrelated firms. Conversely, our study shows a statistically significant difference between the mean and median firm age for politically connected and unrelated firms. Interestingly, previous studies cited by Trifonov (2021) (Civilize et al., 2015; Leuz & Oberholzer-Gee, 2006; Unsal et al.,

2016) show that politically related companies are older than in our study, such companies are younger. As our data show, the age of politically connected companies is 3.001, and the age of politically unrelated is 3.047. The median values are 3.277 and 3.296, respectively. Even though the difference between the age of politically connected and unrelated companies is not significant, these values show high statistical significance. Trifonov (2021) explains the lack of influence of the age of the company on their political connections by the fact that the most prominent Russian companies, which the author considers, were created during the liberalisation period, which took place from 1991 to 1996. Thus the age of the companies can be practically equivalent. On the one hand, our study confirms this argument by showing a minimal difference in politically connected and unrelated companies' ages. On the other hand, we find the statistical significance of the difference between politically related and unrelated companies under this criterion.

Previous studies have offered different definitions of company political ties. Although in most cases, political affiliation is determined through the management of companies or their owners. However, there are differences between the political ties of companies in the year under review (in this study, we use “PCCur” for this kind of political ties) and the past political ties of the leader (in this study, “PCPast” is used to determine such ties). For the most part, previous studies have looked at only one of these two types or have defined the political connection of an organisation in a way that is unique to the study. Our study also represents companies' political connections through the board of directors and uses both definitions separately from each other.

Table 4 Panel C presents the results of a comparison of these two types of political ties. As the results of the comparison of the average and median values for companies with political connections in the present show significantly differ from the political connections established by the director in the past.

Table 4 Panel C shows a significant statistical difference in the influence of political connections in the present and the past on the organisation's performance indicators as ROA and ROI. In both cases, the political connections established by the director in the present have a more significant positive effect on the company's productivity. The indicators of the difference in average values are 0.016 and 0.009 for ROA and ROI, respectively. This difference is also statistically significant at 1% for ROA and 5% for ROI. Interestingly, when comparing these indicators with politically unrelated companies, the mean and median values differences did not show the statistical significance and showed weaker results for politically connected firms than politically unrelated ones. However, a comparison of politically connected firms' averages with current politicians' directors shows higher average ROA and ROI ratios. A hypothetical

explanation for this phenomenon may be that directors who are politicians can have more influence, allowing them to benefit from such connections, an argument based on the theory of rent-seeking and resource dependence.

An argument supporting this assumption can be the unique economic and political situation that developed in Russia in the 90s after the collapse of the USSR. As the research of Gans-Morse (2012) shows, during this period, the so-called “redistribution of property” took place, which ended with the transfer of power from one group to another, and the government began to pose the leading threat companies. Thus, it can be assumed that directors who are now politicians can help companies avoid various bureaucratic costs and also exploit an underdeveloped legislative system against them. At the same time, political ties in the past may not carry such preferences for the company's director in connection with the loss of their power. Politicians, in this case, can also exploit affiliated companies for their benefit rather than help companies avoid various bureaucratic costs and exploit an underdeveloped legal system against them.

The Maturity ratio is, on the contrary, higher for companies with political connections in the past. The difference between the mean and median values for this coefficient is 0.028 and 0.009, respectively. This difference shows statistical significance at the 1% level for the means and the 5% level for the medians. Interestingly, the Maturity coefficient is higher than that of politically unrelated firms only for firms with past political ties. This finding suggests that these companies have a higher level of long-term borrowed capital; considering the lower performance indicators for such firms, the above assumption seems more logical in relation to this type of political relationship.

There are also statistically significant differences in the age of companies with different types of political affiliation. The statistical significance of this indicator was also described in considering the results of descriptive statistics for politically related and unrelated firms. However, although the comparison showed high statistical significance, the actual difference was only 0.046 years between the means and 0.019 between the medians. Examination of this relationship between the types of political affiliation shows that policymakers are more in older firms. These findings, while seemingly continent, follow the findings of past research that indicate a tendency for politicians to gain control over older and larger organisations.

Chapter 6. Results and Discussion

6.1. Main results

Table 5.

The Main Empirical Results.

Panel A.

Dependent	ROA		ROE		ROI	
Independent						
Past PC	0.008*** (3.718)		0.019** (2.786)		0.007*** (4.592)	
Current PC		0.01*** (4.526)		0.014** (2.034)		0.008*** (4.999)
FirmSize	0.006*** (30.132)	0.006*** (30.18)	0.007*** (12.875)	0.007*** (12.907)	0.004*** (25.968)	0.004*** (25.993)
BoardSize	-0.001*** (-3.414)	-0.001*** (-3.466)	-0.002** (-2.238)	-0.002* (-1.917)	-0.001** (-2.809)	-0.001** (-2.676)
Leverage	-0.13*** (-29.256)	-0.13*** (-29.252)	-0.03* (-1.793)	-0.03* (-1.776)	-0.071*** (-20.521)	-0.071*** (-20.513)
CashHolding	0.073*** (8.584)	0.073*** (8.578)	0.072** (3.115)	0.072** (3.107)	0.038*** (6.816)	0.038*** (6.805)
Collateral	-0.046*** (-7.191)	-0.046*** (-7.177)	-0.126*** (-6.098)	-0.126*** (-6.075)	-0.031*** (-6.589)	-0.031*** (-6.564)
FirmAge	0.0 (0.097)	-0.0 (-0.113)	-0.001 (-0.206)	-0.002 (-0.398)		
Age	0.0** (2.684)	0.0** (2.602)	0.0 (0.259)	0.0 (0.144)	0.0 (1.644)	0.0 (1.432)
Education	-0.003** (-2.792)	-0.003** (-2.602)	-0.002 (-0.674)	-0.001 (-0.482)	-0.002** (-2.985)	-0.002** (-2.67)
Tenure	-0.001** (-2.742)	-0.001** (-3.026)				
Milit	0.009** (2.054)	0.008* (1.928)				
GovEnt_dummy	-0.01*** (-3.33)	-0.009** (-3.204)	-0.027** (-2.947)	-0.026** (-2.816)	-0.007*** (-3.372)	-0.007** (-3.219)
Year fixed effect	yes	yes	yes	yes	yes	yes
Industry fixed effect	yes	yes	yes	yes	yes	yes
R adjusted	0.250	0.250	0.054	0.054	0.184	0.184
N obs	19623	19623	19623	19623	19623	19623

Panel B

Dependent	Leverage	Maturity	Tax
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Independent						
PCPast	0.013** (3.112)		0.006* (1.653)		0.767 (1.256)	
PCCur		0.01** (2.322)		0.009** (2.467)		-0.88 (-1.403)
FirmSize	0.024*** (69.16)	0.024*** (69.178)	0.011*** (41.409)	0.011*** (41.425)	1.091*** (26.208)	1.087*** (26.08)
BoardSize	-0.001** (-2.306)	-0.001** (-1.996)			0.012 (0.134)	0.072 (0.809)
Leverage					1.903 (1.586)	1.952 (1.627)
ROA	-0.548*** (-29.709)	-0.548*** (-29.715)			15.529*** (8.865)	15.714*** (8.954)
CashHolding	-0.209*** (-12.93)	-0.209*** (-12.934)			-2.25 (-1.318)	-2.27 (-1.329)
Collateral	-0.246*** (-18.481)	-0.246*** (-18.471)	0.029** (2.528)	0.029** (2.537)		
FirmAge	0.029*** (7.741)	0.028*** (7.559)				
Age	-0.001*** (-4.308)	-0.001*** (-4.426)	0.0 (0.441)	0.0 (0.399)	-0.062** (-2.219)	-0.062** (-2.234)
Education	-0.004** (-2.184)	-0.004** (-1.989)	0.003 (1.336)	0.003 (1.418)	0.118 (0.419)	0.132 (0.467)
Tenure			0.001** (2.058)	0.001** (1.968)		
Milit			-0.025*** (-3.444)	-0.025*** (-3.556)		
GovEnt_dummy	-0.029*** (-4.564)	-0.028*** (-4.428)	-0.008 (-1.517)	-0.008 (-1.48)	-0.606 (-0.682)	-0.504 (-0.569)
Year fixed effect	yes	yes	yes	yes	yes	yes
Industry fixed effect	yes	yes	yes	yes	yes	yes
R adjusted	0.545	0.545	0.359	0.359	0.116	0.116
N obs	19623	19623	19623	19623	19623	19623

Note. Panel A represents the main empirical results for performance. Panel B depicts the main empirical results for capital structure and tax. ROA – return on assets ratio (profit before taxes divided by total assets); ROE – the return on equity ratio (Net profit/Capital and reserves); ROI – the return on investment ratio (EBIT/(capital and reserves + total liabilities)); Leverage - the ratio of total debt to company assets; Maturity - the ratio of long-term debt to total debt; Tax - the amount of taxes paid by the company to profit after taxes; FirmSize - log(Total assets); BoardSize - log(Board size); FirmAge - log(the number of years since incorporation); CashHolding - (Cash and cash equivalents + Short-term investments)/(TOTAL ASSETS); Collateral - the ratio of property, plant, and equipment to total assets; Education - average education level of board directors per company; Age - average age on given year of board directors per company; Tenure – average tenure of board directors per company; Milit – dummy variable that equals to 1 if at least one of board members has military background and 0 otherwise; GovEvt_dummy – dummy variable that equal to 1 if part of the company is owned by the state, but the company is not wholly state-owned and 0 otherwise; N obs – number of observations; PCPast – political connection of the company before given year; PCCur – political connection of the company in the given year.

** Significant at the 10% level*
*** Significant at the 5% level*
**** Significant at the 1% level*

6.1.1. Performance

The results in the table show the positive and statistically significant impact of political connections on the company's performance. Thus, companies with politically connected managers, regardless of whether they have political ties in the present or the past, have a relatively equivalent positive impact on the company's return on assets. The coefficient is 0.008 and 0.01 for political ties in the present and the past, respectively. As these political ties in the present show have a more substantial positive effect on the return on assets, the t-test value also shows a greater statistical significance of this relationship than the indicator of political ties in the past. However, both are statistically significant at the 1% level.

Table 5 also shows vital statistical significance for all control variables except firm age. Therefore, the company's size shows that larger companies tend to show a higher return on assets. However, an increase in the size of the company's board of directors shows a negative impact on the firm's ROA. These figures show statistical significance at the 1% level. Thus, for Russian companies, the assumption is valid that the board of directors' effectiveness decreases with an increase in its number. This effect can be associated with a large distribution of responsibility between members of the board of directors and problems with communication and management decision-making. Also, the company's return on assets is negatively associated with an increase in leverage, and this relationship shows a high statistical significance at the 1% level. So, with a decrease in the share of borrowed funds and an increase in their own, the productivity of companies increases. This relationship confirms the pick inn order theory, and it can be suggested that Russian companies' effective management of borrowed capital is insufficient. The collateral indicator is also negatively related to the return on asset ratio of 4.6%, with a high statistical significance of 1%. On the other hand, the cash holding indicator shows a positive effect on the profitability of assets; the statistical significance of this ratio is relatively high and shows significance at the 1% level.

Furthermore, Table 5 shows the statistical significance of all the considered characteristics of the firm's management on the rate of return on assets. Therefore, a slight increase in the age of the management team can positively impact the profitability of the company. However, oddly enough, the higher level of management education has a statistically significant negative impact on the return on assets. These results are similar to Wu et al. (2012b). Also, the more extensive tenure of directors in office has a negative impact on the return on assets. This finding confirms anecdotal evidence of the deterioration in management performance over time. Also, the presence of state property in the company negatively impacts the profitability of the company's assets. It may be related to an agent problem that is widely described in the literature. Therefore, the

government can use such companies to achieve political goals without worrying about increasing the productivity of the companies. Thus, in principle, state-owned enterprises perform weaker than companies without state participation. The effect of both types of political ties on the return on equity is similar to the effect on the return on assets. Thus, the presence of political ties has a statistically significant positive effect on the return on equity. However, in contrast to the return on assets, it is statistically significant by 5%.

Also, the influence of control variables on the return on equity is similar to the return on assets indicator. However, the statistical significance of the metrics under consideration is slightly weaker for ROE than for ROA, with the exception of company size and collateral. For example, the influence of the size of the board of directors is statistically significant only at 5% and 10% levels for models with political connections in the present and the past, respectively. Also, the leverage ratio's negative impact is statistically significant only at the 10% level. The indicators characterising the company's management considered in this model do not have a statistically significant effect on the return on equity, in contrast to the return on assets. Although the indicator of state ownership also has a negative impact on the return on equity and the return on assets, which is statistically significant at the 5% level.

Indicators of the influence of political ties on the return on investment capital also have significant similarities with the return on equity and the return on assets. Both types of political relationships show a positive statistically significant impact on ROI at a 1% level, which converges with the return on assets and shows a greater statistical significance than the return on equity. Thus, it can be assumed that the management of Russian companies with political connections is quite effective in using investment capital in the company's activities.

The statistical significance and direction of influence of the considered control variables are very similar to the indicator of return on assets and the negative impact of the level of education of management on the return on investment capital. However, the indicator of the influence of the age of management does not show statistical significance.

Thus, the empirical data from this study show the positive impact of political connections on the activities of Russian companies. This conclusion refutes the inverted hypothesis 1 about the adverse effects of political ties on the activities of companies. This effect can be explained by the underdevelopment of the legal and institutional system of the transition economy in Russia. Thus, it can be assumed that political ties act as a substitute for these institutions. Also, as noted by Gans-Morse (2012), since the early 2000s and the presidency of Vladimir Putin, it is the state that has become the main threat to the property of firms. Therefore, the relationship with the state may give

companies privileges when interacting with various state institutions, passing inspections, obtaining certifications. Further, this effect can also be caused by the weak desire of politicians to use politically connected companies to achieve political goals.

These results confirm and can be explained by two theories described in the literature review. First, the theory of rent-seeking implies using the state by politically connected firms to obtain benefits by distributing existing resources in the country without creating new ones. Second, the theory of resource dependence, according to which politically connected firms gain access to such government resources that remain inaccessible to politically unrelated companies, leads to an increase in competitive advantage and, as a result, better performance (Sun et al., 2011). These results are also consistent with research findings on the impact of political relationships on firm performance, such as Fisman (2001), Faccio (2006), Faccio and Parsley (2007) and Boubakri et al. (2012). Also, the results of this study support the conclusion of Civilize et al. (2015) on the positive impact of political connections on the activities of companies in transition economies. In this case, the presence of political ties can act as a substitute for underdeveloped market mechanisms and thus positively impact the performance of politically related companies. Also, these results are consistent with the more recent study by Wang et al. (2019b) show increases in return on equity, assets and productivity for politically related companies.

However, the results of empirical analysis contradict the results of studies such as Fan et al. (2007), Chen et al. (2011) and Asquer and Calderoni (2011), Faccio (2010), where the authors find the negative impact of the presence of politically connected directors on the company's performance as a result of ineffective investment policy. Cingano and Pinotti (2013) also spoke about the negative impact of political ties on the company's activities. The authors show the deterioration in the performance of the company due to the deterioration in the quality of goods and services as a result of the influence of a politically connected person.

Moreover, it should be noted that the presence of state property has a negative impact on the activities of companies. Considering this and previous studies, it can be assumed that politicians use companies with state participation to achieve political interests. Also, this effect of the influence of state ownership confirms the argument put forward by Okhmatovskiy (2010) about the explicit and implicit impact of political ties on the activities of companies. Thus, according to Okhmatovskiy (2010), the political connectedness of companies through the presence of state ownership is evident. Therefore, in this case, the costs of the existence of political ties outweigh the benefits since firms cannot fully use political ties to achieve profitability and such

firms find themselves in a situation defined by Okhmatovsky as “excessive political devotion”. As a result, they are forced to follow often ineffective policies and miss out on possible benefits.

The effect of the control variables considered in this study is similar to previous studies and the absence of any influence of the age of companies on their activities. It may be due to the peculiarities of the sample of companies since most of them are pretty significant and influential in their macro-regions.

The indicators characterising the company's management are also comparable to existing studies. Interestingly, an increase in the level of education is negatively associated with an improvement in the performance of companies. However, this conclusion is consistent with a study conducted on the example of Chinese companies

6.1.2. Leverage

Table 5 Panel B shows the positive impact of political linkages on increasing leverage. Also, this relationship shows statistical significance at the 5% level. This finding supports the argument that borrowing appears to be more affordable for politically connected companies. Moreover, it can be one of the channels for improving the company's performance. Thus, hypothesis 2 is confirmed.

These results contradict those found by Fan et al. (2008). Interestingly, the authors show a decline as leverage for politically connected firms of government officials involved and not involved in corruption cases and argue that corruption does not affect capital misallocation. The data of our study contradict this argument, since both according to anecdotal evidence and according to the ranking of corruption in the countries of the world provided by TRADING ECONOMICS, Russia shows 30 points out of 100, which is below the median value and indicates a relatively high level of corruption in the public sector.⁶ Thus, in the case of Russia, compared to China, firstly, corruption can lead to inefficient capital allocation (if we consider an increase in the debt-to-equity ratio in this way) in politically connected firms and, secondly, the company's political ties have a positive effect on increasing leverage. However, it is worth noting that in their work, the authors focus on cases of arrest of corrupt officials and companies associated with them, as well as companies that have political connections. In Russia, arrests and trials in corruption cases of government officials are rare, which may also explain the difference in research results. Also, the conclusion about the positive effect of political ties on the increase in leverage to

⁶ <https://econreview.berkeley.edu/privatization-of-the-banking-industry-in-the-russian-federation/> , <https://www.investopedia.com/articles/investing/082015/6-biggest-russian-banks.asp#citation-1> , Appendix 4

company assets is consistent with other newer studies conducted on the example of China, for example, Wang et al. (2019b), He et al. (2019) and Wang et al. (2019a) which, on the contrary, show an increase in borrowed capital from politically connected firms. Also, this conclusion is consistent with the study by Faccio (2006). She, considering 35 countries, shows the positive influence of political ties on the increase in the level of borrowed capital of such companies. Also, taking into account the positive impact of having a politically connected person on the board of directors on the productivity of the company, as discussed above in this study, it can be assumed that in the case of Russia, simplified access to debt capital may act as a significant channel for reaping the benefits of having political ties according to Claessens et al. (2008). However, Khwaja and Mian (2005) note that it is easier for politically connected companies to access debt capital primarily from state-owned banks. However, according to anecdotal evidence and information collected in open sources by the authors of this work for 2021, most of the largest Russian banks are associated with state-owned and controlled by state structures.⁷ This circumstance may explain the significant influence of the presence of political ties with the state. In addition, these results are also consistent with studies examining the impact of political connections on company performance in developing countries, for example, Dinc (2005), Charumilind et al. (2006) and Cole (2009). In their study on the example of companies that make up the American S & P500 index, Houston et al. (2014), in addition to an increase in the leverage ratio of politically related companies, authors provide quite exciting explanations for this phenomenon. Thus, the authors assume that politically connected firms will receive preferences in the lending process due to the reduction of the risks of granting loans to such companies from the point of view of the lender since politically connected firms can help both increase the company's profitability and reduce the risk of bankruptcy. Also, more accessible access to borrowed funds and, as a consequence, an increase in the level of leverage of politically related companies can be caused, according to Houston et al. (2014), with the desire of banks to establish their political ties, the authors demonstrate that this situation has the higher possibility for developing countries. Although this study did not conduct a more detailed analysis of the reasons for the increase in borrowed funds from Russian politically connected companies, both proposed by Houston et al. (2014) explanations seem possible in Russia and require raging research. Since in their study, the authors find confirmation only of the first proposed reason, the authors carry out their work on the example of the developed economy of the United States of America. In contrast, Russia is a developing country, and the second reason for the high level of borrowed funds may be relevant for this country.

⁷ Appendix 5

However, the data shows that an increase in leverage has a negative impact on the return on assets, just as an increase in the return on assets contributes to a decrease in leverage; this relationship shows statistical significance at the 1% level. This effect can be explained by the absence of companies' need for borrowed funds in a favourable financial situation, and vice versa, the need for them in times of crisis or lack of own funds. This finding is consistent with the theory of hierarchy, which assumes a greater use of own funds by efficient companies and a jump to borrowed capital in conditions of ineffective use of their funds. Also, a negative, highly statistically significant ($p < 1\%$) relationship between the increase in leverage and the availability of funds in the company's accounts confirms this assumption. So the data of Russian companies are more described by the theory of hierarchy; that is, they are more inclined to use the available funds to support operating activities and, in case of ineffective use of them by management or in unfavourable financial conditions, resort to using borrowed capital. This argument is also consistent with the found negative statistically significant relationship between collateral level and leverage.

Table 5 Panel B also shows a positive relationship between the size of Russian companies and leverage. It may be due to the facilitated regime for obtaining borrowed funds by larger companies, as lenders may show more confidence. This assumption is also consistent with the statistically significant ($p < 1\%$) positive effect of increasing company age on leverage. Since credit institutions can show greater confidence in older and larger companies, it makes it easier for such organisations to obtain debt capital.

All management characteristics under consideration demonstrate a negative, statistically significant 5% relationship with the leverage ratio. Thus, it can be assumed that younger and less educated managers tend to use high leverage. Also, smaller boards of directors show a statistically significant relationship with increased leverage.

6.1.3. Maturity

Continuing the argument about easier access of politically related companies to debt capital, both types of political ties demonstrate a statistically significant relationship with the greater use of long-term loans in company operations. However, the statistical significance is higher for the board of directors' political connections in the present p -value $< 5\%$, while for the political connections in the past, the p -value $< 10\%$. This conclusion confirms hypothesis 3.

This finding confirms the argument of the Chinese study by Fan et al. (2008), in which the authors show a decline in the maturity of politically connected firms after the arrest of corrupt

government officials and argue that political connections of a company can make it easier for such companies to obtain long-term debt. This finding is also supported by newer research examining the effect of China's anti-corruption measures on the availability of debt capital by politically connected companies by Li and Chan (2021). Also, the positive impact of the level of long-term borrowed capital is noted by Charumilind et al. (2006) on the example of the developing economy of Thailand, which is consistent with the data of our study. Also, the results of this study are consistent with those of Boubakri et al. (2012), which is carried out on the example of 33 countries, which include an almost equal number of developing and developed countries.

Also, the indicator of company size shows a highly statistically significant ($p < 1\%$) positive relationship with the level of long-term borrowed capital to the total borrowed capital of the firm. Also, a statistically significant positive relationship is shown by the provision rate at the level of 5%. As with the availability of borrowed funds, the effect of company size can be attributed to lenders' trust in larger firms. However, when issuing loans on a long-term basis, credit organisations may pay more attention to the provision of the company since they need confidence in the organisation's solvency. Therefore, it could be a possible explanation for the positive relationship between provision and maturity.

However, no statistical significance was found for the effect of age and educational attainment of leadership on maturity. However, the manager's tenure indicator shows a positive statistically significant ($p < 5\%$) effect on the ratio of long-term borrowed funds to the total amount of borrowed funds. At the same time, the indicator of military background leadership demonstrates a negative relationship with the indicator under consideration, with a statistical significance of 1%.

Moreover, unlike leverage and the company's profitability indicators, the indicator of state ownership does not have a statistically significant effect on the level of long-term borrowed funds concerning all borrowed funds of the organisation.

6.1.4. Tax

The results show no statistically significant influence of political ties on the amount of taxes paid by the company. Therefore, this contradicts the argument about the possibility of obtaining privileges in the tax regime thanks to political connections. It may be related to the agency problem. Since taxes are the primary source of government revenue, perhaps politicians do not seek to use this channel to benefit the organisation.

Also, the data show a highly statistically significant relationship between firm size and the amount of taxes paid relative to firm size. Thus, these data refute the argument about the possibility

of a tax shield for larger organisations, as well as more favourable tax regimes. Also, an increase in the size of the board of directors is positively associated with an increase in taxes paid by the company, but this relationship is not statistically significant. So is the relationship between leverage and the amount of taxes paid.

At the same time, there is a statistically significant relationship between an increase in the profitability of a company's assets and an increase in tax payments. It can partly be explained by anecdotal evidence of widespread tax evasion by Russian companies since paying taxes “legally” is often beyond the power of ineffective companies. Therefore, with the development and increase in the profitability of the company's activities, they decide to pay more taxes. An example can be the practice of paying "black", that is, in cash without accounting and "grey", which is common in Russian companies, that is, only a tiny part of the salary is taken into account, and the rest is paid in cash to the employees. Also, although the relationship between the level of funds in reports does not show statistical significance, it should be noted that it has a negative direction. Which is also indirectly confirms this assumption. In a situation of a lack of funds in the company's accounts, they try to pay as few taxes as possible.

Also, the indicator of management age shows a statistically significant ($p < 5\%$) negative relationship with the amount of taxes paid. In other words, the older the firm's management is, the more aggressive its tax policy is. One of the possible explanations for this situation may be that, as a rule, the older generation either lived under the USSR or/and found the time of perestroika, a shock economic policy and the formation of a new state of Russia. At this time, a distrust of the state has formed in society, and the population does not clearly understand budget spending, which still exists. Also, the reason may be the complexity and rationality of the Russian tax system. On the other hand, the level of education does not show a statistically significant effect on the amount of taxes paid by the company and the presence of state property.

6.2. The difference between types of political connections.

Table 6.*The Effect of Different Types of Political Connection***Panel A**

Dependent		ROA				ROE				ROI			
Independent													
PC1_past	0.016** (2.179)				0.029 (1.172)				0.007 (1.387)				
PC2_past		0.006** (2.487)			0.024** (2.915)				0.006*** (3.564)				
PC1_cur			-0.009 (-1.403)			-0.032 (-1.482)				-0.01** (-2.103)			
PC2_cur				0.015*** (5.592)	0.021** (2.359)				0.012*** (6.241)				
FirmSize	0.006*** (25.152)	0.006*** (27.356)	0.006*** (25.668)	0.006*** (27.542)	0.007*** (10.03)	0.008*** (12.132)	0.008*** (11.093)	0.007*** (11.942)	0.004*** (21.366)	0.004*** (24.347)	0.004*** (21.491)	0.004*** (23.844)	
BoardSize	-0.003*** (-5.105)	-0.002*** (-5.146)	-0.001* (-1.737)	-0.001*** (-3.531)	-0.006*** (-3.366)	-0.004** (-2.683)	-0.003** (-2.319)	-0.002* (-1.88)	-0.001*** (-3.808)	-0.001*** (-3.618)	-0.001** (-2.017)	-0.001** (-2.723)	
Leverage	-0.134*** (-24.536)	-0.129*** (-26.675)	-0.134*** (-24.867)	-0.128*** (-26.477)	-0.037* (-1.808)	-0.033* (-1.802)	-0.037* (-1.844)	-0.031* (-1.728)	-0.071*** (-16.715)	-0.072*** (-18.992)	-0.071*** (-16.882)	-0.07*** (-18.583)	
CashHolding	0.078*** (7.187)	0.063*** (6.786)	0.058*** (5.586)	0.071*** (7.68)	0.088** (3.252)	0.05* (1.958)	0.042 (1.574)	0.045* (1.859)	0.045*** (6.331)	0.032*** (5.134)	0.031*** (4.555)	0.037*** (6.075)	
Collateral	-0.063*** (-7.753)	-0.05*** (-7.086)	-0.054*** (-6.702)	-0.042*** (-6.01)	-0.128*** (-4.784)	-0.138*** (-6.061)	-0.134*** (-5.168)	-0.118*** (-5.301)	-0.04*** (-6.749)	-0.033*** (-6.467)	-0.034*** (-5.789)	-0.029*** (-5.764)	
FirmAge	0.0 (0.177)	0.0 (0.012)	-0.0 (-0.0)	-0.002 (-1.353)	-0.009 (-1.541)	-0.005 (-0.906)	-0.008 (-1.384)	-0.008* (-1.675)					
Age	0.0** (2.662)	0.0*** (3.374)	0.0** (2.701)	0.0** (2.625)	0.0 (0.612)	0.0 (0.468)	0.0 (0.246)	0.0 (0.576)	0.0* (1.915)	0.0** (2.185)	0.0* (1.801)	0.0 (1.535)	

Education	-0.002★ (-1.66)	-0.003★★ (-2.764)	-0.004*** (-3.336)	-0.003★★ (-2.908)	-0.002 (-0.41)	-0.002 (-0.523)	-0.005 (-1.289)	0.001 (0.249)	-0.002★ (-1.749)	-0.002★★ (-2.379)	-0.002★★ (-2.717)	-0.002★★ (-2.265)
Tenure	-0.001★★ (-2.34)	-0.001*** (-3.554)	-0.001★★ (-2.825)	-0.001★★ (-2.655)								
Milit	0.014★★ (1.994)	0.019*** (3.508)	0.009 (1.431)	0.015★★ (2.997)								
GovEnt_dummy	-0.018*** (-4.531)	-0.012*** (-3.744)	-0.012★★ (-3.251)	-0.001 (-0.372)	-0.03★★ (-2.242)	-0.027★★ (-2.45)	-0.018 (-1.533)	-0.016 (-1.579)	-0.014*** (-5.024)	-0.011*** (-4.588)	-0.009*** (-3.488)	-0.003 (-1.172)
Year fixed effect	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Industry fixed effect	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
R adjusted	0.262	0.253	0.253	0.250	0.058	0.052	0.056	0.054	0.198	0.187	0.188	0.186
N obs	12577	16437	13388	17042	12577	16437	13388	17042	12577	16437	13388	17042

Panel B

Dependent Independent		Leverage				Maturity				Tax			
PC1_past	-0.013 (-0.88)					0.001 (0.089)				-1.282 (-0.71)			
PC2_past		0.016★★ (3.16)					0.001 (0.15)				1.219★ (1.682)		
PC1_cur			0.047★★ (3.245)					0.002 (0.159)				0.815 (0.351)	
PC2_cur				0.02*** (3.683)					0.003 (0.66)				-1.579★★ (-2.08)
FirmSize	0.025*** (56.679)	0.025*** (63.623)	0.025*** (56.276)	0.024*** (64.102)	0.011*** (32.127)	0.011*** (36.583)	0.011*** (32.571)	0.011*** (36.578)	1.095*** (19.753)	1.128*** (24.182)	1.121*** (20.905)	1.121*** (24.287)	

BoardSize	-0.006***	-0.002**	-0.004***	-0.001					0.05	-0.033	0.109	0.006
	(-5.836)	(-2.618)	(-4.168)	(-1.557)					(0.305)	(-0.285)	(0.868)	(0.062)
Leverage									1.311	1.768	1.429	1.21
									(0.825)	(1.325)	(0.947)	(0.926)
ROA	-0.541***	-0.541***	-0.546***	-0.527***					16.346***	15.543***	14.052***	15.311***
	(-25.07)	(-27.259)	(-25.21)	(-26.977)					(7.287)	(7.968)	(6.433)	(8.124)
CashHolding	-0.209***	-0.234***	-0.217***	-0.224***					-1.183	-2.258	-1.594	-1.205
	(-10.433)	(-13.315)	(-11.45)	(-12.97)					(-0.573)	(-1.224)	(-0.795)	(-0.648)
Collateral	-0.277***	-0.279***	-0.269***	-0.237***	-0.007	0.029**	0.005	0.036**				
	(-16.896)	(-19.437)	(-16.993)	(-16.79)	(-0.498)	(2.294)	(0.337)	(2.917)				
FirmAge	0.026***	0.033***	0.026***	0.029***								
	(5.457)	(8.139)	(5.65)	(7.216)								
Age	-0.001***	-0.001***	-0.001***	-0.001***	-0.0	0.0	-0.0	-0.0	-0.057*	-0.047	-0.047	-0.063**
	(-4.389)	(-3.695)	(-4.952)	(-4.366)	(-0.614)	(0.317)	(-1.308)	(-0.769)	(-1.661)	(-1.605)	(-1.395)	(-2.147)
Education	-0.0	-0.001	0.0	-0.003	0.006**	0.004*	0.007**	0.003	-0.098	0.194	0.335	0.1
	(-0.069)	(-0.449)	(0.116)	(-1.316)	(2.312)	(1.806)	(2.852)	(1.372)	(-0.267)	(0.579)	(0.915)	(0.321)
Tenure					0.001	0.001*	0.0	0.0				
					(1.615)	(1.872)	(0.57)	(1.267)				
Milit					-0.049***	-0.041***	-0.051***	-0.03***				
					(-4.418)	(-5.141)	(-5.847)	(-3.854)				
GovEnt_dummy	-0.018**	-0.02**	-0.012	-0.008	0.002	-0.004	-0.003	-0.009	0.5	0.611	-0.515	-0.128
	(-2.032)	(-2.78)	(-1.472)	(-1.127)	(0.288)	(-0.593)	(-0.434)	(-1.555)	(0.463)	(0.562)	(-0.41)	(-0.122)
Year fixed effect	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Industry fixed effect	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
R adjusted	0.550	0.545	0.570	0.550	0.351	0.344	0.366	0.356	0.116	0.116	0.120	0.118
N obs	12577	16437	13388	17042	12577	16437	13388	17042	16437	16437	13388	17042

Note. Panel A illustrates the effect of different types of political connections on firm performance. Panel B represents the effect of political connection on capital structure and tax. ROA – return on assets ratio (profit before taxes divided by total assets); ROE – the return on equity ratio (Net profit/Capital and reserves); ROI - the return on investment ratio (EBIT/(capital and reservs + total liabilities)); Leverage - the ratio of total debt to company assets;

Maturity - the ratio of long-term debt to total debt; Tax - the amount of taxes paid by the company to profit after taxes; FirmSize - $\log(\text{Total assets})$; FirmAge - $\log(\text{the number of years since incorporation})$; CashHolding - $(\text{Cash and cash equivalents} + \text{Short-term investments})/(\text{TOTAL ASSETS})$; Collateral - the ratio of property, plant, and equipment to total assets; Education - average education level of board directors per company; Age - average age on given year of board directors per company; Tenure – average tenure of board directors per company; PC1_past – political connection of the companies identified as presence of director who worked in the past as an official on the board of directors; PC2_past – political connection of the company identified as connection of the board director with government companies in the past; PC1_cur – political connection of the company identified as presence of government officials on the board of directors; PC2_cur – political connection of the company determine if at least one of board directors in the given year holds position in government company. ; Milit – dummy variable that equals one if at least one of board members has a military background and 0 otherwise; GovEvt_dummy – dummy variable that equal to 1 if the state owns part of the company, but the company is not wholly state-owned and 0 otherwise; N obs – number of observations.

★ Significant at the 10% level

★★ Significant at the 5% level

★★★ Significant at the 1% level

Further in this study, the definition of political ties is broken down into even smaller components. Further, it expands the proposed (Okhmatovskiy, 2010) division of political ties into ties with state corporations and ties with government officials. So at this stage of the study, we divide politically connected representatives of the board of directors on PC1, that is, into government officials who in the past (PC1_past) or present (PC1_cur) held or hold a public office, and PC2, that is, persons associated with public corporations, in the past (PC2_past) or present (PC2_cur). Thus, through the means of PC1, we consider explicit political connections, that is, the presence of a government official in the council, and also assess the significance of the influence of such connections in the case of persons holding public office in the past. Also, using PC2, we investigate the implicit political ties of board representatives, which expands on the definition of implicit political ties presented by Okhmatovskiy (2010). Moreover, we consider the implicit political ties in the present, which represent directors who, in a given year, in addition to working in the company in question, are also in positions in a public corporation and directors who have held such a position in the past.

At this stage of the study, we compare specific types of political ties only with politically unrelated firms, excluding possible comparisons with each other, excluding observations with different kinds of political ties from the sample.

Table 6 Panel A shows the analysis results of the influence of the types of political ties described above on the company's performance indicators. Thus, the data show a statistically significant positive impact of the past two types of political ties. According to the values of the regression coefficients, this influence is more vital for PC1_past than PC2_past, which may indicate that the presence on the board of directors of a person who worked as an official in the past has a more substantial and positive effect on the company's activities in terms of the return on assets indicator. However, the statistical significance of the influence of this indicator on the return on equity and return on invested capital is not found. Also, the greatest statistically significant positive impact on the return on assets is shown by the presence of political ties in the second type, that is, through belonging to state corporations. On the other hand, the presence of a government official on the board of directors has a negative impact on the company's return on assets. However, this impact is not statistically significant.

Also, the data show a statistically significant positive effect of political ties of the second type on the return on equity. In comparison, government representatives on the board of directors do not show statistical significance. However, it is worth noting the negative impact of the

existence of existing officials on the return on equity. In contrast, the presence of former officials on the board of directors has a statistically insignificant but positive impact on the return on equity.

Political ties with state corporations show the most significant statistical significance in the past and present on the return on investment capital. At the same time, political connections of the first type have shown a statistically insignificant positive impact on ROI in the past. In contrast, the data demonstrate a statistically significant, at the 5% level, negative orientation of an acting official on the board of directors on the return on investment capital.

The data also demonstrate a statistically significant negative impact of state property on the indicators under consideration in two-thirds of the models used. These results correlate with Okhmatovskiy (2010) work and confirm the positive impact of implicit political ties on company performance compared to direct political ties.

Table 6 Panel B presents the regressions of different types of political ties and indicators of leverage, maturity and tax. Just as with the assessment of only political ties in the present and the past, political connections of the second type in the past and of both types in the present have a statistically significant positive effect on the increase in the level of borrowed funds concerning the company's assets, but it should be noted that the results of this analysis do not show any statistical significance for the first type of political ties in the past. In other words, the presence of a former official on the board of directors does not significantly affect the firm's capital structure. However, this indicator demonstrates a negative impact on the leverage indicator, although, as stated above, this impact is not statistically significant.

Moreover, certain types of political ties do not show statistical significance on the indicator of the level of long-term borrowed funds to the total borrowed funds of the company, which may be due to the weak influence of certain types of political ties on the possibility of obtaining long-term loans. Therefore, it can be assumed that a combination of the kinds of political ties has a role in getting long-term loans.

For the indicator reflecting the amount of taxes paid by the company, the political connections of the first type do not show statistical significance either in the present or in the past. However, political ties, defined through relations with state corporations, show mixed results depending on the time considered. Thus, the political links determined through the work in public corporations of directors in the past is associated with an increase in taxes paid by the company. In contrast, a representative of the board of directors in the present one more position in a public corporation contributes to a decrease in taxes paid by the company. Perhaps this could be due to

obtaining government contracts and thus tax evasion. The control variables considered in these models show similar results to the main study.

6.3. Sub-Samples analysis

This study analyses the impact of political connections on firm performance over time. In this study, the original data is divided into three periods: the period between 2000 and 2008, which falls on the first two terms of President Vladimir Putin; the period from 2008 to 2012, which was the presidency of Viktor Medvedev, as well as the 2008 financial crisis; the period between 2012 and 2019 is the period of the third and fourth terms of the presidency of Vladimir Putin.

Table 7.*The Effect of Political Connection Through Different Periods.***Panel A. ROA**

	1999-2008		2008-2012		2012-2019	
PCPast	0.003 (1.125)		0.01** (2.586)		0.009** (2.51)	
PCCur		0.007** (2.286)		0.013** (3.197)		0.008** (2.373)
FirmSize	0.007*** (21.324)	0.007*** (21.367)	0.006*** (14.027)	0.006*** (14.045)	0.005*** (15.015)	0.005*** (15.043)
BoardSize	-0.0 (-0.077)	-0.0 (-0.321)	-0.001 (-1.232)	-0.001 (-1.357)	-0.001** (-2.985)	-0.001** (-2.78)
Leverage	-0.137*** (-20.196)	-0.137*** (-20.214)	-0.139*** (-15.209)	-0.139*** (-15.205)	-0.124*** (-15.702)	-0.124*** (-15.693)
CashHolding	0.094*** (6.449)	0.094*** (6.452)	0.071*** (4.369)	0.071*** (4.387)	0.045*** (3.374)	0.045*** (3.351)
Collateral	-0.082*** (-7.779)	-0.081*** (-7.757)	-0.022* (-1.777)	-0.021* (-1.697)	-0.033** (-2.861)	-0.033** (-2.898)
FirmAge	0.006** (2.33)	0.006** (2.223)	0.001 (0.399)	0.001 (0.314)	-0.009** (-3.113)	-0.009** (-3.247)
Age	0.0* (1.82)	0.0* (1.742)	0.001** (3.204)	0.001** (3.147)	0.0 (1.212)	0.0 (1.23)
Education	-0.001 (-0.868)	-0.001 (-0.838)	-0.006** (-2.865)	-0.005** (-2.686)	-0.004* (-1.852)	-0.004* (-1.755)
Tenure	-0.0* (-1.922)	-0.0** (-2.006)	-0.001* (-1.829)	-0.001** (-1.978)	-0.001** (-2.179)	-0.001** (-2.406)
MilitDummy	0.034*** (3.519)	0.033*** (3.423)	0.012 (1.619)	0.011 (1.553)	0.001 (0.161)	0.001 (0.143)
GovEnt_dummy	-0.003 (-0.859)	-0.003 (-0.773)	-0.019*** (-3.318)	-0.019*** (-3.296)	-0.014** (-2.75)	-0.014** (-2.746)
Year fixed effect	yes	yes	yes	yes	yes	yes
Industry fixed effect	yes	Yes	yes	yes	yes	yes
R adjusted	0.299	0.299	0.293	0.294	0.254	0.254
N obs	8858	8858	5375	5375	7547	7547

Panel B. ROE

	1999-2008		2008-2012		2012-2019	
PCPast	0.011 (1.097)		0.016 (1.248)		0.025** (2.082)	
PCCur		0.004 (0.41)		0.0 (0.017)		0.02 (1.616)
FirmSize	0.01*** (11.69)	0.01*** (11.701)	0.008*** (6.277)	0.008*** (6.268)	0.005*** (5.356)	0.005*** (5.37)

BoardSize	0.001 (0.288)	0.001 (0.453)	-0.001 (-0.52)	-0.001 (-0.186)	-0.002* (-1.886)	-0.002 (-1.615)
Leverage	-0.106*** (-4.227)	-0.106*** (-4.219)	-0.095** (-2.636)	-0.095** (-2.641)	0.027 (0.931)	0.028 (0.947)
CashHolding	0.126** (3.236)	0.126** (3.237)	0.073* (1.77)	0.072* (1.746)	0.019 (0.523)	0.019 (0.499)
Collateral	-0.232*** (-7.16)	-0.231*** (-7.143)	-0.086* (-1.911)	-0.085* (-1.897)	-0.078** (-2.097)	-0.078** (-2.117)
FirmAge	0.012 (1.635)	0.011 (1.566)	-0.001 (-0.084)	-0.001 (-0.12)	-0.02** (-2.693)	-0.021** (-2.85)
Age	0.0 (0.81)	0.0 (0.759)	0.0 (0.659)	0.0 (0.641)	-0.0 (-0.178)	-0.0 (-0.229)
Education	-0.002 (-0.58)	-0.002 (-0.503)	0.001 (0.172)	0.002 (0.237)	-0.003 (-0.419)	-0.002 (-0.289)
GovEnt_dummy	-0.038** (-2.981)	-0.037** (-2.905)	-0.025 (-1.279)	-0.023 (-1.22)	-0.022 (-1.329)	-0.022 (-1.314)
Year fixed effect	yes	yes	yes	yes	yes	yes
Industry fixed effect	yes	yes	yes	yes	yes	yes
R adjusted	0.102	0.102	0.062	0.062	0.053	0.053
N obs	8858	8858	5375	5375	7547	7547

Panel C. ROI

	1999-2008		2008-2012		2012-2019	
PCPast	0.003 (1.325)		0.007** (2.401)		0.009*** (3.479)	
PCCur		0.004* (1.817)		0.009** (3.055)		0.009*** (3.329)
FirmSize	0.004*** (19.264)	0.004*** (19.259)	0.004*** (11.991)	0.004*** (11.997)	0.003*** (12.198)	0.003*** (12.208)
BoardSize	0.0 (0.088)	0.0 (0.009)	-0.0 (-0.647)	-0.0 (-0.735)	-0.001** (-2.117)	-0.001* (-1.786)
Leverage	-0.067*** (-13.559)	-0.067*** (-13.554)	-0.084*** (-11.957)	-0.084*** (-11.959)	-0.076*** (-11.926)	-0.076*** (-11.912)
CashHolding	0.055*** (5.949)	0.055*** (5.952)	0.038*** (3.496)	0.038*** (3.506)	0.014 (1.471)	0.013 (1.436)
Collateral	-0.059*** (-8.296)	-0.059*** (-8.272)	-0.018** (-1.992)	-0.017* (-1.917)	-0.016* (-1.859)	-0.017* (-1.912)
Age	0.0* (1.872)	0.0* (1.774)	0.0** (2.209)	0.0** (2.09)	-0.0 (-0.298)	-0.0 (-0.39)
Education	-0.0 (-0.341)	-0.0 (-0.286)	-0.003** (-2.406)	-0.003** (-2.183)	-0.004** (-2.271)	-0.003** (-2.033)
GovEnt_dummy	-0.005* (-1.92)	-0.005* (-1.819)	-0.015*** (-3.439)	-0.014*** (-3.436)	-0.006 (-1.573)	-0.006 (-1.573)
Year fixed effect	yes	yes	yes	yes	yes	yes
Industry fixed effect	yes	yes	yes	yes	yes	yes

R adjusted	0.246	0.246	0.227	0.228	0.165	0.165
N obs	8858	8858	5375	5375	7547	7547

Panel D. Leverage

	1999-2008		2008-2012		2012-2019	
PCPast	0.014** (2.18)		0.003 (0.355)		0.012* (1.692)	
PCCur		0.013** (2.006)		0.003 (0.337)		0.006 (0.731)
FirmSize	0.025*** (46.063)	0.025*** (46.133)	0.026*** (34.792)	0.026*** (34.805)	0.024*** (39.564)	0.024*** (39.568)
BoardSize	0.0 (0.14)	0.0 (0.222)	-0.003 (-1.618)	-0.003 (-1.637)	-0.001 (-0.667)	-0.0 (-0.286)
ROA	-0.553*** (-20.808)	-0.553*** (-20.835)	-0.58*** (-15.088)	-0.58*** (-15.076)	-0.504*** (-16.047)	-0.504*** (-16.051)
CashHolding	-0.16*** (-6.062)	-0.16*** (-6.057)	-0.212*** (-7.112)	-0.212*** (-7.117)	-0.246*** (-9.425)	-0.247*** (-9.445)
Collateral	-0.397*** (-19.592)	-0.397*** (-19.571)	-0.192*** (-7.168)	-0.192*** (-7.161)	-0.095*** (-4.056)	-0.095*** (-4.054)
FirmAge	0.027*** (5.107)	0.026*** (4.919)	0.031*** (3.977)	0.031*** (3.967)	0.018** (2.834)	0.018** (2.746)
Age	-0.001** (-2.286)	-0.001** (-2.417)	-0.001** (-2.7)	-0.001** (-2.709)	-0.001** (-3.0)	-0.001** (-3.031)
Education	-0.004 (-1.484)	-0.004 (-1.379)	-0.007* (-1.717)	-0.007* (-1.688)	0.0 (0.037)	0.001 (0.118)
GovEnt_dummy	-0.026** (-2.834)	-0.024** (-2.651)	-0.039** (-3.103)	-0.039** (-3.101)	-0.029** (-2.844)	-0.029** (-2.812)
Year fixed effect	yes	yes	yes	yes	yes	yes
Industry fixed effect	yes	yes	yes	yes	yes	yes
R adjusted	0.541	0.541	0.586	0.586	0.579	0.579
N obs	8858	8858	5375	5375	7547	7547

Panel E. Maturity

	1999-2008		2008-2012		2012-2019	
PCPast	0.006 (1.126)		0.019** (2.654)		0.003 (0.463)	
PCCur		0.004 (0.802)		0.014* (1.874)		0.017** (2.692)
FirmSize	0.008*** (21.971)	0.008*** (21.988)	0.015*** (24.424)	0.015*** (24.414)	0.015*** (30.293)	0.015*** (30.409)
Collateral	-0.013*(- 0.748)	-0.013 (-0.74)	0.025 (0.956)	0.027 (1.0)	0.039** (1.986)	0.038* (1.923)

Age	0.0 (0.542)	0.0 (0.516)	0.0 (0.23)	0.0 (0.234)	0.0 (0.886)	0.0 (0.851)
Education	0.0 (0.15)	0.0 (0.173)	0.005 (1.277)	0.006 (1.422)	0.003 (0.819)	0.003 (0.829)
Tenure	0.0 (0.334)	0.0 (0.187)	0.003** (2.981)	0.002** (2.763)	-0.0 (-0.25)	-0.0 (-0.217)
Military	-0.043** (-3.212)	-0.043** (-3.199)	-0.027* (-1.956)	-0.026* (-1.877)	-0.023** (-2.238)	-0.026** (-2.553)
GovEnt_dummy	-0.017** (-2.541)	-0.016** (-2.452)	-0.008 (-0.673)	-0.007 (-0.614)	-0.009 (-0.916)	-0.01 (-1.017)
Year fixed effect	yes	yes	yes	yes	yes	yes
Industry fixed effect	yes	yes	yes	yes	yes	yes
R adjusted	0.320	0.320	0.398	0.398	0.443	0.444
N obs	8858	8858	5375	5375	7547	7547

Panel F. Tax

	1999-2008		2008-2012		2012-2019	
PCPast	0.806 (0.8)		0.948 (0.795)		0.056 (0.058)	
PCCur		-1.124 (-1.059)		0.691 (0.573)		-0.85 (-0.896)
FirmSize	1.337*** (18.842)	1.333*** (18.739)	0.733*** (8.001)	0.732*** (7.96)	0.749*** (10.168)	0.746*** (10.137)
BoardSize	-0.167 (-0.638)	-0.063 (-0.248)	0.072 (0.349)	0.092 (0.459)	0.048 (0.385)	0.075 (0.634)
Leverage	3.047 (1.473)	3.119 (1.509)	4.459* (1.821)	4.455* (1.819)	3.906** (2.188)	3.918** (2.196)
ROA	12.004*** (3.54)	12.16*** (3.578)	13.638*** (3.849)	13.654*** (3.854)	21.386*** (9.41)	21.474*** (9.435)
CashHolding	-6.36** (-2.076)	-6.39** (-2.086)	3.036 (0.875)	2.997 (0.866)	-2.072 (-0.791)	-2.12 (-0.81)
Age	-0.088** (-2.15)	-0.08* (-1.904)	-0.046 (-0.779)	-0.047 (-0.8)	-0.055 (-1.187)	-0.055 (-1.182)
Education	0.226 (0.568)	0.132 (0.322)	-0.541 (-0.952)	-0.508 (-0.897)	0.334 (0.627)	0.309 (0.578)
GovEnt_dummy	-1.163 (-0.828)	-1.028 (-0.737)	-1.204 (-0.635)	-1.168 (-0.617)	-0.764 (-0.569)	-0.722 (-0.538)
Year fixed effect	yes	yes	yes	yes	yes	yes
Industry fixed effect	yes	yes	yes	yes	yes	yes
R adjusted	0.133	0.133	0.120	0.120	0.117	0.117
N obs	8858	8858	5375	5375	7547	7547

Note. ROA – return on assets ratio (profit before taxes divided by total assets); ROE – the return on equity ratio (Net profit/Capital and reserves); ROI - the return on investment ratio

(EBIT/(capital and reserves + total liabilities)); Leverage - the ratio of total debt to company assets; Maturity - the ratio of long-term debt to total debt; Tax - the amount of taxes paid by the company to profit after taxes; FirmSize - log(Total assets); BoardSize - log(Board size); FirmAge - log(the number of years since incorporation); CashHolding - (Cash and cash equivalents + Short-term investments)/(TOTAL ASSETS); Collateral - the ratio of property, plant, and equipment to total assets; Education - average education level of board directors per company; Age - average age on given year of board directors per company; Tenure – average tenure of board directors per company; Milit – dummy variable that equals to 1 if at least one of board members has military background and 0 otherwise; GovEvt_dummy – dummy variable that equal to 1 if part of the company is owned by the state, but the company is not wholly state-owned and 0 otherwise; N obs – number of observations; PCPast – political connection of the company before given year; PCCur – political connection of the company in the given year.

★ Significant at the 10% level

★★ Significant at the 5% level

★★★ Significant at the 1% level

Panel A of Table 7 presents an analysis of the impact of political relationships on a company's return on assets. The data show a statistically significant positive effect of past and present political ties on return on assets, except for past political ties between 1999 and 2008. This period falls on the first two presidential terms of Vladimir Putin. This period in Russian history is distinguished by the transfer of power from Boris Yeltsin and the liberal government he formed to Vladimir Putin and a gradual change in the vertical of government. Also, during this period, the transition from the democratic regime that developed in the 90s to the authoritarian one began. Thus, as expected, the political ties established with the past government do not show statistical significance because of the circumstances described above.

It is also interesting to note that political ties during the crisis period of 2008-2012 show the highest statistical significance and the highest coefficient of influence. This conclusion is consistent with studies showing a strong positive impact of political ties on the activities of companies in times of crisis.

There is also a development of the negative influence of the size of the board of directors on the enterprise's activities, so by the period 2012-2019, this influence shows a statistical significance at the level of 5%. There is also a slight decrease in the negative impact of the leverage ratio on the return on assets, although it remains highly statistically significant and negative. There is also a change in the influence of the firm's age indicator on the return on assets from positive and statistically significant to negative and statistically significant. This situation may occur due to the "equidistance of oligarchs" policy. At the beginning of his presidency, Vladimir Putin meets with business representatives. He outlines new principles of interaction between government and business, stressing that the state will guard the interests of honest business. Still, at the same time, it will " expects higher investment activity from business in social projects, in science, education, in the development of the human factor ". Thanks to this policy, profitable and mature enough enterprises that did not agree with the proposed policy began to be subjected to political repression.

An example is the "Razgon NTV", the sale of the media holding "Media-Most" and also the famous case of the destruction of the oil company "YUKOS". Also, Gans-Morse (2012) notes that in the 2000s, it was the state that became the main threat to the property of Russian companies. There is also an increase in the negative impact of state ownership on the enterprise's profitability from statistically insignificant in 1999-2008 to highly statistically significant in 2008-2012. Then there is a decline in the statistical significance of this indicator from 1% to 5% level.

Panel B of Table 7 presents the analysis results of the impact of political relationships on the return on equity. Interestingly, only the presence of political ties in the past in the period 2012-

2019 shows statistical significance. No statistically significant influence is found in other periods and for different types of political ties.

There is also a gradual decrease in the influence of borrowed funds on the return on equity with a negative impact, statistically significant at the level of 1% in 1999-2008. Then, to a decrease in both the coefficient of influence and statistical significance by 2008-2012. Finally, the data show the positive direction of the influence of leverage on the return on equity in the period 2012-2019, although this influence is not statistically significant. In addition, the data show the loss of statistical significance of the negative impact of state ownership on the return on equity from a 5% level in 1999-2008 to its absence in the periods between 2008-2019, which is a mirror image of the change in the impact of this indicator on the return on assets.

Panel C of Table 7 shows the analysis results of the impact of political relationships on the return on investment capital. The data show an increase in the statistical significance of the positive effect of political ties on the return on invested capital over time. As in the analysis of the impact on the company's return on assets, political connections in the past in the period 1999-2008 do not have a statistically significant effect on improving the return on investment capital, which also supports the argument that ties with the past government are not very effective when it is changed to a new government and in a different direction. Thus, before establishing an authoritarian regime in Russia, the highest statistical significance of the influence of political ties on the return on invested capital is observed. As in return on assets, there is a decrease in the statistical significance of the influence of the availability of funds in the company's accounts on the return on investment capital. It may be due, firstly, to the consequences of the 2008 crisis, during which it was helpful for companies to use funds in their accounts to finance operating activities. Also, a strong statistically significant negative impact of the presence of state ownership is observed during the crisis of 2008-2012, which is consistent with existing studies that show a deterioration in the performance of state-owned companies during periods of crisis due to the superiority of costs from the presence of political ties over preferences.

Panel D of Table 7 shows the analysis results of the impact of political relations on the ratio of debt to assets of the company in the three periods under consideration. Interestingly, the effects of political ties in the past and present show a statistical significance of 5% only in 1999-2008. This could potentially be associated with Kosyanov's policy, which was aimed at restructuring the USSR's debts and obtaining new loans, which led to economic growth in this period, 10% GDP growth, and the first budget surplus. Thus, it can be assumed that due to the favourable economic situation, the opportunity to obtain more loans has increased than could be used by companies with

politically connected representatives of the board of directors. However, then, during the crisis period of 2008-2012, there is no statistical significance of the impact of political ties on the level of the ratio of borrowed funds to company assets, which is strange and may indicate other ways of obtaining benefits from political connections that are preferable in this period than using the effect of financial levHowever, there. There is also a statistical significance of the influence of political ties in the past on the level of leverage in the period 2012-2019 ($p < 10\%$).

Control variables correlate with the main findings of this study.

Panel E of Table 7 shows the results of an analysis of the influence of political ties on the ratio of long-term borrowed funds to total borrowed funds. Therefore, the data show a positive statistically significant influence of political ties, both in the past and the present, on the level of maturity in 2008-2012. Thus, it can be assumed that during the crisis, the main channel for deriving benefits from the presence of political ties was facilitated access to long-term loans from politically connected firms. What is consistent with the results of previous studies //. The table also shows the change in collateral influence from negative in 1999-2008 to positive and statistically significant in 2012-2019. In addition, there is a loss of statistical significance of the negative impact of state ownership on the level of maturity.

Panel F of Table 7 shows the results of an analysis of the effect of political connections on the amount of taxes a company pays. The data show the lack of statistical significance of the influence of political ties, both in the present and in the past, on the amount of taxes paid by the company in all the periods under consideration. Interesting is the increase in the statistical significance of the leverage level on the number of taxes paid from its absence in 1999-2008 to the statistical significance of 5% in 2012-2019. The data also show no statistical significance of the presence of state ownership on the amount of taxes paid. Still, it is worth noting that firms with state participation, according to the data, tend to pay fewer taxes.

6.4 The analysis of the only largest companies sample

Also, a relevant study on the impact of political connections on the activities of Trifonov (2021) shows strong statistically significant negative effects of political ties on the activities of Russian companies. Since this study considers a large sample of companies, which includes not the most prominent Russian companies, a sample of companies was collected for verification, which includes

In the most recent study, Trifonov (2021) examines the influence of political connections on companies' performance and the change in the price of companies' shares in the market. In his

research, the author shows highly statistically significant evidence of the negative impact of political connections on the performance of companies. Although, as the author himself notes, this is strange since the Russian economy is distinguished by an extensive state intervention, which, according to Banerji et al. (2018), should contribute to increasing the influence of politically connected firms. Also, in Russia, there is a transitional economy with a poorly developed institutional and legal system, which should also contribute to the positive impact of political ties on the activities of firms (Faccio 2006, 2010). Therefore, Trifonov (2021) argues Russian companies' ineffectiveness of using political connections, which leads to the use of controlled companies by the state in their interests.

Since the primary analysis shows a high statistically significant positive effect of the presence of political connections on the activities of Russian companies, which is relatively constant when considering various independent variables and shows positive statistically significant results on sub-samples, a separate sample was collected to check this study, consisting of 610 companies whose revenues exceed 10,000,000 rubbles. Thus, this sample represents the most prominent Russian companies and slightly expands the sample presented by Trifonov (2021), which is suitable for this study since it is unlike Trifonov (2021), which focuses on the performance indicators of the company based on the analysis of financial statements.

Table 8.*The Effect of Political Connection of Largest Companies Only.***Panel A**

	ROA		ROE		ROI	
PCPast	-0.006 (-1.556)		-0.025* (-1.697)		-0.006** (-2.036)	
PCCur		-0.015*** (-3.634)		-0.041** (-2.651)		-0.013*** (-4.232)
FirmSize	-0.001 (-0.505)	-0.001 (-0.46)	-0.0 (-0.069)	-0.0 (-0.073)	-0.001 (-0.828)	-0.001 (-0.79)
BoardSize	0.0 (1.597)	0.0** (2.37)	0.0 (0.222)	0.0 (0.657)	0.0** (2.424)	0.0*** (3.333)
Leverage	-0.212*** (-30.241)	-0.212*** (-30.257)	-0.005 (-0.163)	-0.004 (-0.122)	-0.115*** (-22.518)	-0.114*** (-22.541)
CashHolding	0.145*** (9.588)	0.145*** (9.58)	0.177*** (3.392)	0.176*** (3.38)	0.076*** (7.758)	0.076*** (7.735)
Collateral	-0.057*** (-5.946)	-0.055*** (-5.765)	-0.114*** (-3.374)	-0.108** (-3.208)	-0.048*** (-7.245)	-0.047*** (-7.007)
FirmAge	-0.003 (-0.446)	-0.003 (-0.42)	-0.028 (-0.944)	-0.027 (-0.925)		
Age	0.001** (2.828)	0.001** (2.895)	0.0 (0.34)	0.001 (0.431)	0.001** (2.328)	0.001** (2.445)
Education	-0.001 (-0.324)	-0.001 (-0.501)	-0.015 (-1.457)	-0.016 (-1.601)	-0.0 (-0.038)	-0.001 (-0.27)
Tenure	0.0 (0.363)	0.0 (0.549)				
Milit	0.007 (1.434)	0.007 (1.399)				
GovEnt_dummy	-0.025*** (-6.392)	-0.022*** (-5.698)	-0.031** (-1.995)	-0.025 (-1.592)	-0.017*** (-5.805)	-0.015*** (-5.114)
Year fixed effect	yes	yes	yes	yes	yes	yes
Industry fixed effect	yes	yes	yes	yes	yes	yes
R adjusted	0.325	0.326	0.044	0.045	0.236	0.237
N obs	9194	9194	9194	9194	9194	9194

Panel B

	Leverage		Maturity		Tax	
PCPast	-0.013* (-1.936)		-0.004 (-0.56)		-3.65** (-3.164)	
PCCur		-0.003 (-0.4)		-0.021** (-3.047)		-1.575 (-1.269)
FirmSize	-0.02*** (-7.421)	-0.02*** (-7.657)	0.042*** (18.519)	0.043*** (18.991)	-0.749** (-2.221)	-0.847** (-2.496)

BoardSize	0.0** (3.093)	0.0** (2.546)			0.017 (0.606)	0.004 (0.151)
Leverage					6.492** (3.056)	6.531** (3.074)
ROA	-0.606*** (-30.75)	-0.606*** (-30.755)			10.159*** (3.561)	10.12*** (3.532)
CashHolding	-0.149*** (-6.226)	-0.149*** (-6.219)			6.057* (1.732)	5.926* (1.694)
Collateral	-0.278*** (-16.221)	-0.276*** (-16.188)	0.076*** (4.811)	0.078*** (4.972)		
FirmAge	-0.046** (-3.004)	-0.046** (-3.003)				
Age	-0.002*** (-3.295)	-0.002** (-3.214)	0.002** (3.248)	0.002** (3.278)	0.065 (0.67)	0.079 (0.813)
Education	0.018*** (3.904)	0.018*** (3.87)	0.031*** (6.165)	0.03*** (5.919)	0.184 (0.249)	0.119 (0.16)
Tenure			-0.001* (-1.917)	-0.001* (-1.811)		
Milit			-0.001 (-0.074)	0.001 (0.115)		
GovEnt_dummy	-0.078*** (-9.467)	-0.078*** (-9.423)	-0.003 (-0.389)	0.0 (0.024)	2.248 (1.46)	2.302 (1.481)
Year fixed effect	yes	yes	yes	yes	yes	yes
Industry fixed effect	yes	yes	yes	yes	yes	yes
R adjusted	0.471	0.470	0.376	0.376	0.032	0.031
N obs	9194	9194	9194	9194	9194	9194

Note. Panel A shows the effect of political connection on the performance of the largest Russian companies. Panel B represents the effect of political connection on capital structure and taxes of the largest companies. ROA – return on assets ratio (profit before taxes divided by total assets); ROE – the return on equity ratio (Net profit/Capital and reserves); ROI - the return on investment ratio (EBIT/(capital and reserves + total liabilities)); Leverage - the ratio of total debt to company assets; Maturity - the ratio of long-term debt to total debt; Tax - the amount of taxes paid by the company to profit after taxes; FirmSize - log(Total assets); BoardSize - log(Board size); FirmAge - log(the number of years since incorporation); CashHolding - (Cash and cash equivalents + Short-term investments)/(TOTAL ASSETS); Collateral - the ratio of property, plant, and equipment to total assets; Education - average education level of board directors per company; Age - average age on given year of board directors per company; Tenure – average tenure of board directors per company; Milit – dummy variable that equals to 1 if at least one of board members has military background and 0 otherwise; GovEvt_dummy – dummy variable that equal to 1 if part of the company is owned by the state, but the company is not wholly state-owned and 0 otherwise; N obs – number of observations; PCPast – political connection of the company before given year; PCCur – political connection of the company in the given year.

** Significant at the 10% level*

*** Significant at the 5% level*

**** Significant at the 1% level*

The analysis of this sub-sample shows results similar to Trifonov (2021), which are diametrically opposite to the results obtained using the example of the primary sample. The only difference in analysis and sampling is that one includes a greater variety of companies, while the other focuses on the largest companies.

The additional analysis data show a negative, statistically significant impact of political connections on the activities of companies, which is confirmed by the Trifonov study (2021).

Therefore, this study raises the question - why? In this study, we put forward a possible explanation for this phenomenon, which sheds light on the impact of political ties. This explanation is based on an argument presented by Okhmatovskiy (2010), which is rarely discussed in the existing literature on the impact of political ties. According to Okhmatovskiy (2010) and the generally existing contradictory research results, the influence of political connections can be both positive and significant for improving a company's financial performance or highly damaging. The difference lies in the explicitness or implicitness of political ties, so considering the agency problem, an argument is often made about the use of corporations by politicians to achieve political goals, which is usually expressed in the satisfaction of social needs through the use of company resources or the achievement of political purposes, that is, the use of company resources to obtain political points for a particular politician. While considering the theory of resource search, the privileges that companies receive are more hidden from the public and are expressed in more accessible access to debt capital, government subsidies, and help to avoid bankruptcy. These channels of obtaining benefits are often hidden from the general public. Also, the analysis in this study showed that implicit political ties, through a position in state-owned companies in the past or the present, have the most statistically significant effect on the company's activities.

In contrast, the presence of an acting official on the board of directors and the presence of state property have a statistically significant negative impact on activities firms. Thus, considering the behaviour of the largest politically connected companies and the change in their value in the market, it logically shows the negative effect of political ties. Since companies cannot take full advantage of political connections, this behaviour will bring more problems for both companies and the government. However, relatively small companies with implicit political connections can use them for profit without fear of public condemnation and harm to politically connected persons. Especially in the regions remote from the centre, since there are elections even in the conditions of autocracy that has developed in Russia. Also, the ruling party cannot be entirely compromised by openly helping politically connected companies that threaten popular resistance and lost

elections. Although Russia has never held elections without falsifications since 2000, according to estimates and social studies, the ruling party still retains its legitimacy, as the majority supports it.

Chapter 7. Conclusion

The influence of political ties on the company's activities is ambiguous. On the one hand, political ties can act as a substitute for underdeveloped institutions in transition economies. However, on the other hand, they can also help companies avoid bureaucratic costs, subsidise companies and help them avoid bankruptcy in a crisis.

On the other hand, political ties can be associated with both social costs, as not necessary for the company to increase jobs, contributions to various funds and direct support of political parties. Ineffective management resulting from the recruitment of a politically connected person is inappropriate but politically connected candidates. So it is with the political costs that arise in a politician's desire to use the company's resources to improve his political rating or force the company to follow an ineffective party strategy.

Analysing a sample of 1,148 different Russian companies, this study reveals a statistically significant positive influence of political ties on a firm's performance indicators: return on assets, equity, and investment capital. However, this study's analysis of 610 largest Russian companies reveals a negative influence of political ties on the same indicators of companies' performance. This study also provides empirical evidence for this explanation of this phenomenon, which is based on the explicitness or implicitness of political connections in the company. Thus, this study reveals the negative impact of direct political ties, such as the presence of state property and a former or current government official on the board of directors. At the same time, a positive influence of implicit political ties is also found, which in this study is determined through the position held by a representative of the board of directors in a public corporation together with the position of a member of the board of directors of the company in question, as well as if the person in question has held a position in a public corporation in the past.

Furthermore, considering three time periods, this study provides evidence for the assertion that political ties lose their significance with a change of government. In this study, such period falls on when Vladimir Putin entered the first and second presidential terms of 1999-2008. Analysis of this period shows the lack of statistical significance of political ties with the past government.

This study complements the existing literature on the influence of political ties on firms and explains the ambiguous direction of the effect of political ties with empirical evidence. Thus, putting forward an argument about explicit and implicit political connections.

Chapter 8. Reference

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Chapter 9. Appendix.

Appendix 1.

The Publications of Papers Related to Effect of Political Connections on Firm Performance by Year.

Publication Years	Record Count	% of 906
2020	185	20.419
2019	152	16.777
2018	104	11.479
2021	104	11.479
2016	76	8.389
2017	74	8.168
2015	63	6.954
2014	42	4.636
2013	29	3.201
2012	20	2.208
2011	19	2.097
2010	13	1.435
2009	12	1.325
2008	4	0.442
2006	3	0.331
2007	3	0.331
2003	2	0.221
1990	1	0.11

Note. It is adapted from <https://www.webofscience.com/wos/woscc/analyze-results/477e81a0-7851-4609-b621-9c3736f903a2-07446f20>. Copyright 2020 by Clarivate.

Appendix 2.

The Banks Deposits.

Bank Russian Name	Bank English Name	Interest rate	Bank Russian Name	Bank English Name	Interest rate
РОСБАНК	ROSBANK	7.00%	Газпромбанк	Gazprombank	6.00%
Банк Хоум Кредит	Home Credit Bank	7.00%	Газэнергобанк	Gazenergobank	6.00%
Росгосстрах Банк	Rosgosstrah Bank	6.00%	Московский Индустриальный Банк	Moscow Industrial Bank	6.00%
Банк ЗЕНИТ	Bank ZENIT	6.00%	Центр-инвест	Center-invest	6.00%
Банк БЖФ	Bank BZHF	7.00%	ОТП Банк	OTP Bank	6.00%
Росгосстрах Банк	Rosgosstrah Bank	6.00%	МТС-Банк	MTS-Bank	6.00%
СКБ-Банк	SKB-Bank	6.00%	Совкомбанк	Sovcombank	6.00%
Тинькофф Банк	Tinkoff Bank	5.00%	Банк СГБ	Bank SGB	6.00%
Райффайзенбанк	Raiffeisenbank	4.00%	БКС Банк	BCS Bank	6.00%
Ситибанк	Citibank	8.00%	ЮниКредит Банк	UniCredit Bank	6.00%
Экспобанк	Exprobank	8.00%	Пересвет	Peresvet	6.00%
Кредит Европа Банк (Россия)	Credit Europe Bank (Russia)	7.00%	Банк Интеза	Banca Intesa	6.00%
Металлинвестбанк	Metallinvestbank	7.00%	ФК Открытие	FC Otkritie	6.00%

Россельхозбанк	Rosselkhozbank	7.00%	Всероссийский Банк развития регионов	All-Russian Regional Development Bank	6.00%
Московский Кредитный Банк	Credit Bank of Moscow	7.00%	Ак Барс	AK Bars	6.00%
Промсвязьбанк	Promsvyazbank	7.00%	Меткомбанк	Metcombank	5.00%
Азиатско-Тихоокеанский Банк	Asian-Pacific Bank	7.00%	Энерготрансбанк	Energotransbank	5.00%
Таврический	Tavrichesky	7.00%	Авангард	Vanguard	5.00%
Транскапиталбанк	Transcapitalbank	7.00%	Уральский Банк реконструкции и развития	Ural Bank for Reconstruction and Development	5.00%
Инвестторгбанк	Investtorgbank	7.00%	Центрокредит	Central Credit	5.00%
Еврофинанс Моснарбанк	Eurofinance Mosnarbank	7.00%	Русский стандарт	Russian standard	5.00%
ББР Банк	BBR Bank	7.00%	Банк ДОМ.РФ	Bank DOM.RF	5.00%
Новикомбанк	Novikombank	7.00%	Банк «Санкт-Петербург»	Bank “Saint-Petersburg”	5.00%
Альфа-Банк	Alfa Bank	7.00%	Тимер Банк	Timer Bank	5.00%

Локо-Банк	Loco-Bank	7.00%	Сургутнефтегазбанк	Surgutneftegazbank	5.00%
Кубань Кредит	Kuban Credit	7.00%	Ренессанс Кредит	Renaissance Credit	5.00%
СМП Банк	SMP Bank	7.00%	Россия	Russia	4.00%
Мособлбанк	Mosoblbank	7.00%	Абсолют Банк	Absolut Bank	4.00%
Почта Банк	Post Bank	7.00%	Банк Финсервис	Finservice Bank	3.00%
Уралсиб	Uralsib	7.00%	Мир Бизнес Банк	World Business Bank	3.00%
Фора-Банк	For a-Bank	6.00%	ВТБ	VTB	3.00%
Примсоцбанк	Primsotsbank	6.00%	РНКБ	RNKB	2.00%
СДМ-Банк	SDM-Bank	6.00%	Сбербанк	Sberbank	1.00%
СОЮЗ	UNION	6.00%			

Note. Appendix 2 illustrate manually collected information on annual interest rates on bank deposits of the largest Russian banks.

Appendix 3.

The Different Types of Political Connections by Periods.

Panel A. ROA

	1999-2008				2008-2012				2012-2019			
PC1_past	0.017 (1.184)				0.029* (1.955)				0.011 (0.915)			
PC2_past		0.009** (2.328)				0.003 (0.766)				0.004 (0.971)		
PC1_cur			-0.004 (-0.292)				-0.017 (-1.557)				-0.009 (-0.985)	
PC2_cur				0.011** (2.611)				0.016** (3.155)				0.014** (3.233)
FirmSize	0.007*** (18.925)	0.006*** (19.926)	0.007*** (18.367)	0.007*** (19.904)	0.006*** (10.221)	0.006*** (13.187)	0.006*** (10.74)	0.006*** (12.872)	0.005*** (10.643)	0.005*** (12.894)	0.006*** (12.125)	0.005*** (13.766)
BoardSize	-0.002** (-2.311)	-0.001 (-1.644)	-0.002** (-1.967)	-0.0 (-0.288)	-0.003** (-2.502)	-0.002** (-2.739)	-0.002** (-2.66)	-0.001* (-1.797)	-0.002** (-2.926)	-0.002*** (-3.861)	-0.001 (-1.146)	-0.001** (-2.894)
Leverage	-0.14*** (-17.627)	-0.134*** (-18.799)	-0.136*** (-17.149)	-0.131*** (-18.015)	-0.143*** (-12.146)	-0.137*** (-13.586)	-0.141*** (-11.809)	-0.138*** (-13.801)	-0.139*** (-12.815)	-0.124*** (-13.651)	-0.137*** (-13.466)	-0.127*** (-14.336)
CashHolding	0.092*** (5.301)	0.091*** (5.921)	0.075*** (4.591)	0.086*** (5.65)	0.073*** (3.674)	0.053** (3.039)	0.055** (2.938)	0.074*** (4.226)	0.053** (2.637)	0.04** (2.528)	0.026 (1.462)	0.043** (2.815)
Collateral	-0.092*** (-7.589)	-0.083*** (-7.521)	-0.081*** (-6.747)	-0.077*** (-7.005)	-0.034** (-2.102)	-0.02 (-1.404)	-0.029* (-1.827)	-0.01 (-0.783)	-0.049** (-2.715)	-0.038** (-2.851)	-0.045** (-2.723)	-0.029** (-2.19)
FirmAge	0.005 (1.417)	0.007** (2.607)	0.005 (1.627)	0.002 (0.73)	0.006 (1.401)	-0.0 (-0.026)	0.004 (0.887)	-0.003 (-0.864)	-0.005 (-1.299)	-0.009** (-2.854)	-0.007** (-2.006)	-0.009** (-3.043)
Age	0.0** (2.025)	0.0** (2.627)	0.0* (1.82)	0.0 (1.466)	0.001** (2.553)	0.001*** (3.554)	0.001** (3.016)	0.001** (3.13)	0.0 (0.537)	0.0 (1.19)	0.0 (1.238)	0.0 (1.632)

Education	-0.001 (-0.368)	-0.002 (-1.433)	-0.002 (-1.486)	-0.002 (-0.964)	-0.005* (-1.924)	-0.007** (-2.807)	-0.006** (-2.658)	-0.007*** (-3.346)	-0.003 (-0.966)	-0.003 (-1.167)	-0.005 (-1.625)	-0.003 (-1.247)
Tenure	-0.001** (-2.281)	-0.001** (-2.803)	-0.001** (-2.679)	-0.001** (-2.12)	-0.001 (-1.321)	-0.001** (-2.98)	-0.0 (-1.045)	-0.001 (-1.576)	-0.001 (-1.233)	-0.001** (-2.158)	-0.001** (-2.053)	-0.001* (-1.902)
Milit	0.031** (2.116)	0.039*** (3.668)	0.049*** (3.475)	0.034*** (3.42)	0.024** (2.192)	0.029*** (3.55)	0.019* (1.664)	0.013 (1.589)	0.001 (0.111)	0.003 (0.419)	-0.007 (-0.836)	0.005 (0.579)
GovEnt_dummy	-0.006 (-1.136)	-0.007* (-1.744)	-0.007 (-1.397)	0.002 (0.348)	-0.027*** (-3.64)	-0.022*** (-3.457)	-0.025*** (-3.731)	-0.013** (-2.059)	-0.033*** (-4.192)	-0.017** (-2.826)	-0.022*** (-3.322)	-0.003 (-0.457)
Year fixed effect	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Industry fixed effect	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
R adjusted	0.292	0.299	0.298	0.295	0.320	0.313	0.312	0.294	0.282	0.261	0.269	0.258
N obs	6427	7868	6436	7935	3420	4509	3671	4701	4088	5859	4761	6287

Panel B. ROE

	1999-2008			2008-2012			2012-2019		
PC1_past	0.074* (1.694)			0.028 (0.634)			0.025 (0.571)		
PC2_past		0.019 (1.557)			0.015 (0.96)			0.032** (2.244)	
PC1_cur			-0.072* (-1.938)			-0.088** (-2.366)			-0.033 (-0.909)
PC2_cur				0.005 (0.368)			0.013 (0.724)		0.035** (2.22)

FirmSize	0.01*** (10.16)	0.01*** (11.171)	0.011*** (10.634)	0.01*** (10.937)	0.009*** (4.839)	0.008*** (5.614)	0.009*** (5.113)	0.008*** (5.808)	0.005** (2.982)	0.005*** (4.683)	0.006*** (4.378)	0.006*** (5.539)
BoardSize	-0.005 (-1.637)	-0.001 (-0.515)	-0.002 (-0.811)	0.001 (0.515)	0.0 (0.132)	-0.002 (-0.737)	-0.003 (-0.981)	-0.003 (-0.982)	-0.006** (-2.142)	-0.004* (-1.877)	-0.004* (-1.835)	-0.002 (-1.401)
Leverage	-0.102*** (-3.527)	-0.114*** (-4.21)	-0.107*** (-3.757)	-0.103*** (-3.86)	-0.126** (-2.806)	-0.094** (-2.381)	-0.111** (-2.531)	-0.097** (-2.522)	0.018 (0.446)	0.031 (0.949)	0.018 (0.498)	0.003 (0.105)
CashHolding	0.132*** (3.327)	0.115** (2.678)	0.089** (2.347)	0.082** (2.097)	0.054 (1.089)	0.034 (0.744)	0.021 (0.451)	0.052 (1.178)	0.058 (1.112)	0.026 (0.597)	-0.003 (-0.05)	0.001 (0.03)
Collateral	-0.233*** (-6.094)	-0.246*** (-7.121)	-0.224*** (-5.941)	-0.227*** (-6.719)	-0.111* (-1.84)	-0.101** (-2.046)	-0.107* (-1.885)	-0.069 (-1.431)	-0.067 (-1.2)	-0.081* (-1.915)	-0.118** (-2.278)	-0.059 (-1.418)
FirmAge	0.004 (0.462)	0.011 (1.5)	0.003 (0.359)	0.003 (0.467)	-0.007 (-0.46)	-0.006 (-0.531)	-0.008 (-0.539)	-0.012 (-1.005)	-0.02** (-2.022)	-0.026** (-3.027)	-0.025** (-2.692)	-0.024** (-2.955)
Age	0.0 (0.688)	0.0 (0.767)	0.0 (0.383)	0.0 (1.086)	0.0 (0.436)	0.0 (0.296)	0.0 (0.125)	0.0 (0.524)	0.0 (0.191)	0.0 (0.068)	0.0 (0.448)	-0.0 (-0.206)
Education	-0.001 (-0.178)	-0.003 (-0.757)	-0.001 (-0.233)	0.001 (0.203)	-0.003 (-0.39)	0.004 (0.488)	0.0 (0.049)	0.003 (0.4)	0.001 (0.059)	-0.001 (-0.072)	-0.01 (-1.018)	0.005 (0.529)
GovEnt_dummy	-0.04** (-2.318)	-0.042** (-2.893)	-0.04** (-2.571)	-0.033** (-2.286)	-0.025 (-0.922)	-0.017 (-0.732)	-0.036 (-1.469)	-0.015 (-0.721)	-0.014 (-0.479)	-0.01 (-0.445)	0.003 (0.132)	-0.003 (-0.176)
Year fixed effect	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Industry fixed effect	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
R adjusted	0.101	0.102	0.097	0.099	0.072	0.053	0.059	0.063	0.056	0.050	0.067	0.057
N obs	6427	7868	6436	7935	3420	4509	3671	4701	4088	5859	4761	6287

Panel C. ROI

1999-2008					2008-2012				2012-2019			
PC1_past	0.005 (0.513)				0.016 (1.485)				0.004 (0.478)			
PC2_past		0.007** (2.585)				0.005 (1.381)				0.006* (1.834)		
PC1_cur			-0.005 (-0.56)				-0.013* (-1.743)				-0.007 (-0.983)	
PC2_cur				0.006** (2.061)				0.011** (3.147)				0.015*** (4.447)
FirmSize	0.004*** (17.683)	0.004*** (18.299)	0.004*** (17.011)	0.004*** (17.58)	0.003*** (8.906)	0.004*** (11.598)	0.003*** (9.015)	0.004*** (10.934)	0.003*** (8.797)	0.003*** (11.244)	0.003*** (9.795)	0.003*** (12.153)
BoardSize	-0.001* (-1.918)	-0.001 (-1.126)	-0.001** (-2.045)	0.0 (0.162)	-0.002** (-2.163)	-0.001* (-1.74)	-0.002** (-2.552)	-0.001 (-1.248)	-0.001* (-1.802)	-0.001** (-2.255)	-0.0 (-1.046)	-0.001** (-2.069)
Leverage	-0.071*** (-12.236)	-0.066*** (-12.604)	-0.067*** (-11.485)	-0.062*** (-11.499)	-0.081*** (-9.317)	-0.085*** (-11.089)	-0.082*** (-9.079)	-0.086*** (-11.335)	-0.079*** (-8.818)	-0.08*** (-11.043)	-0.078*** (-9.468)	-0.081*** (-11.522)
CashHolding	0.055*** (5.068)	0.054*** (5.428)	0.043*** (4.193)	0.051*** (5.233)	0.041** (3.084)	0.022* (1.903)	0.031** (2.49)	0.039*** (3.365)	0.025* (1.775)	0.009 (0.783)	0.006 (0.456)	0.012 (1.109)
Collateral	-0.067*** (-8.411)	-0.06*** (-8.092)	-0.06*** (-7.381)	-0.055*** (-7.5)	-0.019 (-1.593)	-0.016 (-1.573)	-0.014 (-1.205)	-0.009 (-0.91)	-0.025* (-1.886)	-0.019* (-1.918)	-0.025** (-2.02)	-0.015 (-1.517)
AgeMean	0.0* (1.722)	0.0** (2.57)	0.0 (1.45)	0.0 (1.426)	0.0** (2.11)	0.0** (2.191)	0.0** (2.354)	0.0** (2.309)	-0.0 (-0.363)	-0.0 (-0.595)	0.0 (0.19)	-0.0 (-0.014)
Education	0.0 (0.113)	-0.001 (-0.739)	-0.001 (-0.705)	-0.0 (-0.24)	-0.003 (-1.558)	-0.003* (-1.927)	-0.003** (-2.027)	-0.004** (-2.68)	-0.004 (-1.406)	-0.002 (-1.022)	-0.003 (-1.263)	-0.001 (-0.696)
GovEnt_dummy	-0.008** (-2.47)	-0.008** (-2.901)	-0.008** (-2.496)	-0.003 (-0.928)	-0.02*** (-3.768)	-0.018*** (-3.732)	-0.017*** (-3.695)	-0.011** (-2.528)	-0.02*** (-3.391)	-0.011** (-2.346)	-0.012** (-2.425)	-0.002 (-0.369)
Year fixed effect	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Industry fixed effect	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

R adjusted	0.247	0.249	0.247	0.243	0.255	0.239	0.244	0.231	0.188	0.168	0.175	0.168
N obs	6427	7868	6436	7935	3420	4509	3671	4701	4088	5859	4761	6287

Appendix 4.

The Corruption Index Across the Countries.

Country	Corruption index	Previous corruption index	Reference	Unit	Country	Corruption index	Previous corruption index	Reference	Unit
Somalia	12	9	20-Dec	Points	East Timor	40	38	20-Dec	Points
South Sudan	12	12	20-Dec	Points	India	40	41	20-Dec	Points
Syria	14	13	20-Dec	Points	Morocco	40	41	20-Dec	Points
Venezuela	15	16	20-Dec	Points	Trinidad and Tobago	40	40	20-Dec	Points
Yemen	15	15	20-Dec	Points	Turkey	40	39	20-Dec	Points
Equatorial Guinea	16	16	20-Dec	Points	Benin	41	41	20-Dec	Points
Sudan	16	16	20-Dec	Points	Guyana	41	40	20-Dec	Points
Libya	17	18	20-Dec	Points	Lesotho	41	40	20-Dec	Points
Haiti	18	18	20-Dec	Points	Argentina	42	45	20-Dec	Points
North Korea	18	17	20-Dec	Points	Bahrain	42	42	20-Dec	Points
Republic of the Congo	18	18	20-Dec	Points	China	42	41	20-Dec	Points
Afghanistan	19	16	20-Dec	Points	Kuwait	42	40	20-Dec	Points
Burundi	19	19	20-Dec	Points	Solomon Islands	42	42	20-Dec	Points
Congo	19	19	20-Dec	Points	Ghana	43	41	20-Dec	Points
Guinea Bissau	19	18	20-Dec	Points	Maldives	43	29	20-Dec	Points

Turkmenistan	19	19	20-Dec	Points	Vanuatu	43	46	20-Dec	Points
Cambodia	21	20	20-Dec	Points	Bulgaria	44	43	20-Dec	Points
Chad	21	20	20-Dec	Points	Hungary	44	44	20-Dec	Points
Comoros	21	25	20-Dec	Points	Jamaica	44	43	20-Dec	Points
Eritrea	21	23	20-Dec	Points	Romania	44	44	20-Dec	Points
Iraq	21	20	20-Dec	Points	South Africa	44	44	20-Dec	Points
Nicaragua	22	22	20-Dec	Points	Tunisia	44	43	20-Dec	Points
Honduras	24	26	20-Dec	Points	Montenegro	45	45	20-Dec	Points
Zimbabwe	24	24	20-Dec	Points	Senegal	45	45	20-Dec	Points
Cameroon	25	25	20-Dec	Points	Belarus	47	45	20-Dec	Points
Guatemala	25	26	20-Dec	Points	Croatia	47	47	20-Dec	Points
Iran	25	26	20-Dec	Points	Cuba	47	48	20-Dec	Points
Lebanon	25	28	20-Dec	Points	Sao Tome and Principe	47	46	20-Dec	Points
Madagascar	25	24	20-Dec	Points	Armenia	49	42	20-Dec	Points
Mozambique	25	26	20-Dec	Points	Jordan	49	48	20-Dec	Points
Nigeria	25	26	20-Dec	Points	Slovakia	49	50	20-Dec	Points
Tajikistan	25	25	20-Dec	Points	Greece	50	48	20-Dec	Points
Bangladesh	26	26	20-Dec	Points	Malaysia	51	53	20-Dec	Points
The central African Republic	26	25	20-Dec	Points	Namibia	51	52	20-Dec	Points

Uzbekistan	26	25	20-Dec	Points	Grenada	53	53	20-Dec	Points
Angola	27	26	20-Dec	Points	Italy	53	53	20-Dec	Points
Djibouti	27	30	20-Dec	Points	Malta	53	54	20-Dec	Points
Papua New Guinea	27	28	20-Dec	Points	Mauritius	53	52	20-Dec	Points
Uganda	27	28	20-Dec	Points	Saudi Arabia	53	53	20-Dec	Points
Dominican Republic	28	28	20-Dec	Points	Czech Republic	54	56	20-Dec	Points
Guinea	28	29	20-Dec	Points	Oman	54	52	20-Dec	Points
Liberia	28	28	20-Dec	Points	Rwanda	54	53	20-Dec	Points
Myanmar	28	29	20-Dec	Points	Dominica	55	55	20-Dec	Points
Paraguay	28	28	20-Dec	Points	Georgia	56	56	20-Dec	Points
Laos	29	29	20-Dec	Points	Poland	56	58	20-Dec	Points
Mauritania	29	28	20-Dec	Points	St Lucia	56	55	20-Dec	Points
Togo	29	29	20-Dec	Points	Costa Rica	57	56	20-Dec	Points
Azerbaijan	30	30	20-Dec	Points	Cyprus	57	58	20-Dec	Points
Gabon	30	31	20-Dec	Points	Latvia	57	56	20-Dec	Points
Malawi	30	31	20-Dec	Points	Cape Verde	58	58	20-Dec	Points
Mali	30	29	20-Dec	Points	St Vincent and the Grenadines	59	59	20-Dec	Points
Russia	30	28	20-Dec	Points	Botswana	60	61	20-Dec	Points
Bolivia	31	31	20-Dec	Points	Brunei	60	60	20-Dec	Points

Kenya	31	28	20-Dec	Points	Israel	60	60	20-Dec	Points
Kyrgyzstan	31	30	20-Dec	Points	Lithuania	60	60	20-Dec	Points
Mexico	31	29	20-Dec	Points	Slovenia	60	60	20-Dec	Points
Pakistan	31	32	20-Dec	Points	Portugal	61	62	20-Dec	Points
Niger	32	32	20-Dec	Points	South Korea	61	59	20-Dec	Points
Egypt	33	35	20-Dec	Points	Spain	62	62	20-Dec	Points
Nepal	33	34	20-Dec	Points	Bahamas	63	64	20-Dec	Points
Sierra Leone	33	33	20-Dec	Points	Qatar	63	62	20-Dec	Points
Swaziland	33	34	20-Dec	Points	Barbados	64	62	20-Dec	Points
Ukraine	33	30	20-Dec	Points	Taiwan	65	65	20-Dec	Points
Zambia	33	34	20-Dec	Points	Seychelles	66	66	20-Dec	Points
Moldova	34	32	20-Dec	Points	Chile	67	67	20-Dec	Points
Philippines	34	34	20-Dec	Points	United States	67	69	20-Dec	Points
Bosnia and Herzegovina	35	36	20-Dec	Points	Bhutan	68	68	20-Dec	Points
Macedonia	35	35	20-Dec	Points	France	69	69	20-Dec	Points
Mongolia	35	35	20-Dec	Points	United Arab Emirates	71	71	20-Dec	Points
Panama	35	36	20-Dec	Points	Uruguay	71	71	20-Dec	Points
Albania	36	35	20-Dec	Points	Ireland	72	74	20-Dec	Points
Algeria	36	35	20-Dec	Points	Japan	74	73	20-Dec	Points
El Salvador	36	34	20-Dec	Points	Estonia	75	74	20-Dec	Points

Ivory Coast	36	35	20-Dec	Points	Iceland	75	78	20-Dec	Points
Kosovo	36	36	20-Dec	Points	Austria	76	77	20-Dec	Points
Thailand	36	36	20-Dec	Points	Belgium	76	75	20-Dec	Points
Vietnam	36	37	20-Dec	Points	Australia	77	77	20-Dec	Points
The Gambia	37	37	20-Dec	Points	Canada	77	77	20-Dec	Points
Indonesia	37	40	20-Dec	Points	Hong Kong	77	76	20-Dec	Points
Brazil	38	35	20-Dec	Points	United Kingdom	77	77	20-Dec	Points
Ethiopia	38	37	20-Dec	Points	Germany	80	80	20-Dec	Points
Kazakhstan	38	34	20-Dec	Points	Luxembourg	80	80	20-Dec	Points
Peru	38	36	20-Dec	Points	Netherlands	82	82	20-Dec	Points
Serbia	38	39	20-Dec	Points	Norway	84	84	20-Dec	Points
Sri Lanka	38	38	20-Dec	Points	Finland	85	86	20-Dec	Points
Suriname	38	44	20-Dec	Points	Singapore	85	85	20-Dec	Points
Tanzania	38	37	20-Dec	Points	Sweden	85	85	20-Dec	Points
Colombia	39	37	20-Dec	Points	Switzerland	85	85	20-Dec	Points
Ecuador	39	38	20-Dec	Points	Denmark	88	87	20-Dec	Points
Burkina Faso	40	40	20-Dec	Points	New Zealand	88	87	20-Dec	Points

Note. The table presents an index of corruption among countries, which shows the estimated level of corruption in the public sector on a scale from 0, which corresponds to no corruption, to 100, which indicates the maximum degree of corruption in the public sector. Copyright ©2021 TRADING ECONOMICS.

Appendix 5.

The Government Control Over Russian Banks.

Bank Name	Share of government participation
State control by law	
Bank of Russia (Central Bank of the Russian Federation)	86-FZ "On the Central Bank of the Russian Federation (Bank of Russia)."
Vnesheconombank (Bank for Development and Foreign Economic Affairs)	(activities are regulated by special law No. 82-FZ "On the Development Bank")
Full state participation	
JSC "Rosselkhozbank"	100% of shares with voting rights (Federal Property Management Agency)
RNKB Bank (Russian National Commercial Bank)	100% (Federal Property Management Agency)
JSC "Bank DOM.RF"	100% of shares with voting rights (Federal Property Management Agency)
Promsvyazbank	100% Federal Property Management Agency
JSC "MSP Bank"	100% Federal Corporation for the Development of Small and Medium Enterprises (shareholders: 71.9626% - Federal Property Management Agency, 28.0374% - VEB.RF)
ROSEKSIMBANK JSC	100% - Vnesheconombank
Elite Bank	100% - Kaluga region
Roscosmosbank	100% - Roscosmos
JSCB "NOVIKOMBANK"	100% - Rostec
Bank FC Otkritie	100% Central Bank
MinBank	100% Bank of Russia
Partial state participation	
VTB (PJSC)	60.93% of shares are owned by the state (Federal Property Management Agency)
Post Bank JSC	49.999994% - VTB 49.999994% - (Federal Property Management Agency)
Sberbank	52.32% owned by the Ministry of Finance of the Russian Federation
JSC Gazprombank	49.87% - Federal Property Management Agency 41.58% - PJSC Gazprom, incl. subsidiaries 8.53% - Vnesheconombank
Genbank	72.45% DIA 6.89% Republic of Crimea 6.89% Sevastopol city
TRUST	97.70% Bank of Russia 1.3% FC Otkritie
Asian-Pacific Bank	99.99% Bank of Russia
Indirect government involvement	
BM-Bank JSC	100% - VTB Bank
Credit Ural Bank	100% - Gazprombank (42.7% through Novfintech LLC)
Rosgosstrah Bank	96.26% - FC Otkritie
Setelem Bank	79.2% - PJSC Sberbank

Note. The table illustrates the extent and nature of government involvement in the management of Russian banks.

