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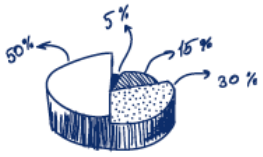

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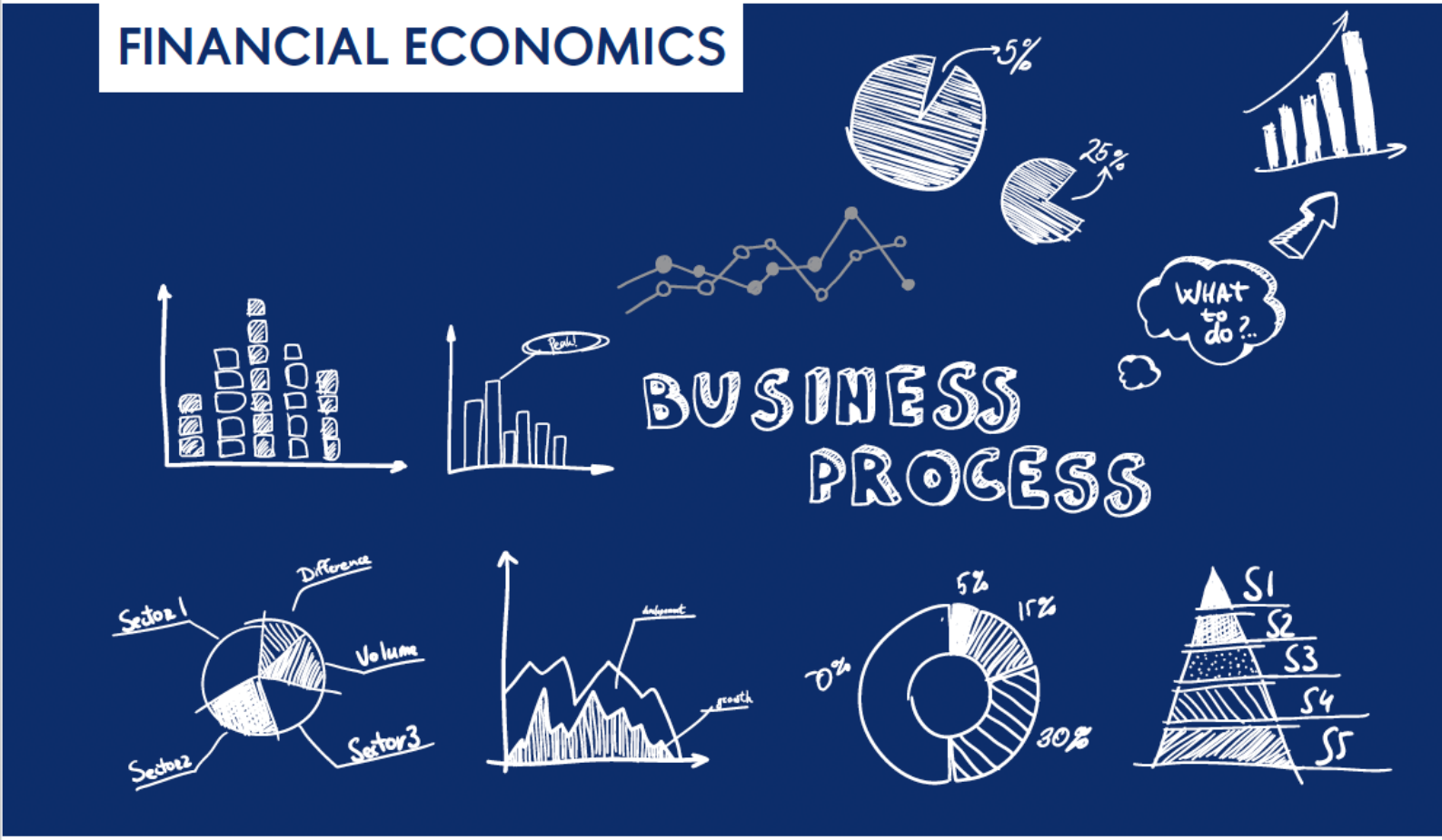

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A New Approach to Identifying Political Connections: Evidence from the Russian Banking Sector[1]

Nikita Kozlov[2], Maria Semenova[3]

Abstract

This paper introduces a new approach to identifying and operationalizing the business political connections of banks. We manually collect data on 2,598 bankers who owned or worked in 115 Russian banks from 2015 to 2021 and use this dataset to describe the types of political connections of Russian banks and to unveil their institutional patterns by applying cluster analysis. We confirm the widespread and heterogeneous nature of political connections in the Russian banking sector and provide a more detailed understanding of the degree of penetration of political interests into the activities of banks. We propose and explore a set of variables catching the origins, relevance, and maturity of political connections which produce additional variation among banks and could be used to facilitate a better and more theoretically grounded assessment of the effects of political connections on the business choices and the financial performance of banks.

Keywords: Banks, Political Connections, Russia

JEL: G21, G28, P26

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Introduction

The political connections of banks can serve as a mechanism of political pressure creating non-market incentives. Based on research on corporate political connections (Hillman 2005: 469; Faccio 2006: 370-371), the political connections of banks can be considered an informal channel of a bank's relations with political decision makers, and are usually empirically identified through the presence of current or former politicians or officials among the owners or managers of the bank or persons associated with them.

Previous studies examine the different roles of corporate political connections: business political strategies and specific choices of firms (Hillman, Hitt 1999; Tihanyi et al. 2019; Marques 2017; Goldman, Rocholl, So 2013; Correia 2014), and their market value and financial results (Fisman 2001; Trifonov 2021; Su, Fung 2013; Bertrand et al. 2018; Fan, Wong, Zhang 2007). Some papers study the effects of the political connections of financial companies and banks (Hung et al. 2017; Carretta et al. 2012; Blau, Brough, Thomas 2013; Abdelsalam, Mollah, Tortosa-Ausina 2017; Papadimitri, Pasiouras 2022). It has been shown that banks with political connections are more likely to engage in smoothing lending, focusing on supporting businesses and individuals during crises, but this subsequently significantly increase the proportion of bad loans in their portfolios (Bian, Ji, Wang 2021; Wang et al. 2019; Chavaz, Rose 2019). The broader literature addresses the problem of political credit cycles directly related to such lending: a growth in lending, followed by an increase in the credit risk of banks, occurs during election years and in those regions where the ruling administration wants to improve its ratings (Kern, Amri 2021; Chu, Zhang 2022; Leppers 2023; Fungáčová et al. 2023; Ghosh 2023).

Russia provides a perfect environment for exploring the role of political connections, being an emerging market with systemic limitations of formal institutions, the use of informal practices in their stead, and a close intertwining of the political and economic elites (Gel'man 2016: 459; Sharafutdinova 2010: 23-24, 37-42; Ledeneva 2006). The significant role of political connections in the Russian corporate environment has been confirmed by many researchers (Szakonyi 2018; Okhmatovskiy 2010; Berkowitz, Hoekstra, Schoors 2014; Trifonov 2021; García-Gómez et al. 2023). In the Russian institutional context, certain types of political connections can characterize the established relationships between banks and government officials, which include bank support for government initiatives (Vernikov 2014: 9; Fungáčová et al. 2023: 910-911; Okhmatovskiy 2010: 1040).

This paper explores the political connections of Russian banks. We use a new, manually collected, dataset to describe the types of political connections of Russian banks and to unveil the patterns of political connections and other institutional characteristics by applying cluster analysis

techniques. Our paper expands the understanding of the depth and nature of political interests in the Russian banking sector.

The identification and operationalization of banks' political connections

There are many approaches to identifying and operationalizing political connections in accordance with the research goal. Preuss and Königsgruber (2021) discuss eight proxy indicators for identifying firms' political connections. They are (1) donations to election campaigns, (2) lobbying, (3) a politician's share in the company's equity, (4) the geographical proximity of the company and the politician's constituency, (5) state ownership, (6) social ties between the politician and the firm's management, (7) the CEO having held a political position, (8) other indirect approaches, e.g., a sharp change in the profitability of the company's stocks after a political event. The choice of proxies for political connections in different institutional contexts leads to different conclusions about their impact on business performance (Trifonov 2018: 129).

This paper uses bankers' job experience in political positions and their informal connections with politicians as proxy indicators for political connections. The experience of a bank's directors or CEO in government or state-owned companies (both past and present) reflects a formal political connection (a direct way of identification), and an informal political connection includes a banker being acquainted with politicians or state officials (an indirect way of identification). We denote both such connections as *common*. The data was collected on 115 Russian banks sampled by a quasi-random method for the period from 2015 to 2021. This delimitation is due to the suspension of the publication of data on financial statements of banks in early 2022.

For direct encoding, we take the data from the official quarterly reports of Russian banks, which contain information about the work experience of bank board members and top management, the publication of information about the qualifications and employment experience

of the bank management, disclosed by banks from 2015 to 2022 on the instructions of the Bank of Russia,[4] and biographies published online.[5]

Informal connections were encoded on indirect grounds, when acquaintance or relations with government officials, deputies, and influential managers of state-owned corporations do not stem from formal employment experience, but can be uncovered on the basis of other circumstances, events, and facts that indicate the presence of contact or relationships, e.g., a banker's membership in a government non-profit organization, or work in public and expert councils under government ministries, State Duma committees, or in the offices of parliament. An informal connection was also assigned if a banker had publicly known family, or had a friendly or partnership relationship with representatives of state authorities, the regulator, or the President's inner circle. A detailed description of the procedure for encoding political connections is presented in Appendix.

There are the difficulties and delimitations of indirect identification expressed in the subjectivity of expert coding and data availability, however acquaintances and other informal connections, such as kinship, friendship, common region of origin, university, or joint business, are widely used as indicators of connections, including political ones, in corporate environments (Fisman 2001; Faccio 2006; Hwang, Kim 2009; García-Gómez et al. 2023). Due to the high concentration of informal business-government relations in Russia (Sharafutdinova 2010: 38, 40; Ledeneva 2006), the rejection of the use of informal connections as an indicator would severely limit the explanatory power of political connections due to the systematic omission of significant factors in the error term.

We define a political connection as the existence of a channel of interaction between bankers and the government. Those who have access to any sort of government officials are carriers of political connections. In studies based on national specifics, owners, board members, CEOs, and managers of a company are considered as carriers of the company's political connections. In Trifonov (2021), the availability of connections in Russian firms is checked for all

[4] Bank of Russia Instruction 3639-U of 19 May 2015 "On the procedure for disclosure by a credit institution of information on the qualifications and work experience of members of the board of directors (supervisory board) of a credit institution, persons holding the positions of the sole executive body, his deputies, members of the collegial executive body, chief accountant, deputy chief accountant of a credit institution, as well as the head, chief accountant of a branch of a credit institution, on the official website of the credit institution in the information and telecommunications network "Internet". (In Russian: Указание Банка России от 19 мая 2015 г. N 3639-У "О порядке раскрытия кредитной организацией информации о квалификации и опыте работы членов совета директоров (наблюдательного совета) кредитной организации, лиц, занимающих должности единоличного исполнительного органа, его заместителей, членов коллегиального исполнительного органа, главного бухгалтера, заместителя главного бухгалтера кредитной организации, а также руководителя, главного бухгалтера филиала кредитной организации, на официальном сайте кредитной организации в информационно-телекоммуникационной сети "Интернет"). Official Internet portal of legal information [Electronic resource]. http://pravo.gov.ru (date of access: 18.01.23).

[5] Verification of a specific person from the information disclosed by banks with biographical data on the web was carried out by date and/or place of birth.

of them. Due to the lack of research assessing the influence of these institutions in the management of Russian banks, we follow the same path in order to avoid systematic error. We also encode chief accountants of banks whose work experience is disclosed as potential carriers of connections.

In total, 2,598 bankers were encoded across 115 banks in our sample. Among them, 575 (22.1%) had some kind of political connection in at least one of the years from 2015 to 2021. Moreover, 335 (12.9%) had at least one formal connection through work experience, 364 (14.0%) had an informal connection, and 124 (4.8%) had both formal and informal connections. Of the 800 bank owners with a stake of 1% or more, 243 (30.4%) were carriers of some kind of political connection. Of the 1,224 members of the boards of directors, 402 (32.8%) had at least one political connection. Of the 190 board chairs, 109 (56.8%) were politically connected. Among the members of the management board of banks, only 106 out of 1038 (10.2%) had a political connection, and only 40 among 182 CEOs (22.0%). Of the chief accountants, only 2 out of 142 (1.4%) were connected. We see that connections are more widespread among owners and directors than among managers, but this does not mean that the latter can be ignored when encoding connections. For example, of the 39 bankers with job experience in the management of regulatory authorities, most often regional departments of the Bank of Russia, 18 were members of bank management boards, the rest were members of the boards of directors.

The heterogeneity of political connections

Taking into account the heterogeneity of political connections is an important step towards obtaining internally valid results for any study of the effect of political connections on banks. For example, a banker's work experience in a government body usually directly implies their participation in decision-making within this body, and acquaintance with officials from this body contains only the possibility of indirect influence. It does not mean that one of thesetypes of connections is better or more efficient for banks, but they might differ in terms of their relations and mutual responsibilities. For direct access to decision makers, firms must pay higher costs. However, as some researchers argue, indirect connections still make it possible for firms to obtain benefits but escape government intervention in their business (Carney, Child, Li 2020: 5; Okhmatovskiy 2010: 1027).

The heterogeneity of connections is also expressed in the different competencies of authorities. Accordingly, the more diverse the bank's political connections, and the larger the number of state bodies which the bank has a channel to share information with, and the larger the space for mutually beneficial exchanges related to the bank's business activities. Therefore, different studies consider different political connections depending on their source, e.g., parliamentary, regulatory, government connections (Farag, Dickinson 2020) or connections in the

ruling party or government (Disli, Schoors, Meir 2013). Research on China confirms that bank connections with local officials and regional authorities are important, since in a centralized system, local authorities are tasked with implementing government policy (Wang et al. 2019; Hung et al. 2017). It is also known that connections established through state-owned companies may be even more beneficial for firms (Okhmatovsky 2010).

To explore the variety of political connections in this respect, we introduce and encode five types of connections, via direct and indirect identification approaches: *parliamentary*, *regulatory*, *governmental*, *corporate*, and *regional* (10 variables of *common* political connections in total). *Parliamentary* connections were determined by connections in the State Duma or the Federation Council (the chambers of the Russian federal parliament); *regulatory* connections were assigned to the Bank of Russia, the officials of its regional departments, the Federal Financial Markets Service (which was abolished in 2013), the Deposit Insurance Agency, or the Accounts Chamber; *governmental* connections appear for the government ministries and the departments controlled by them, regional departments of law enforcement agencies (Ministry of Internal Affairs, Ministry of Emergency Situations, Ministry of Defense, Ministry of Justice, FSB, FSO), or the Presidential Administration; *corporate* connections are assigned for the top management of state-owned companies and corporations and their first-level subsidiaries, as well as NGOs established by the Government (e.g., the Skolkovo Foundation or the Agency of Strategic Initiatives); *regional* connections appear for the executive and legislative authorities of the local administrations of the region where the bank is registered.

Following Houston et al. (2014) and Hasan et al. (2017), we consider political connections in terms of the current status (*bynow*) and their duration (*durat*). We assigned them for each of the 10 types of political connections mentioned above, which together with *common* connections gives 30 variables in total. The current status binary variable reflects whether the relationship is still ongoing (*bynow*=1), or has ended (*bynow*=0). This allows us to track whether the parties currently exchange information and resources.

The duration of any sort of connection was encoded as the number of years the connection lasted or has lasted. It can be assumed that the longer the connection, the more reliable and useful the channel of relations between a banker and officials. However, not every encoded connection is lasting one, e.g., a presidential decree awarding a banker or a one-time business meeting with a government official. The initially encoded duration of a relationship in the number of years is converted to an ordinal scale, where 0 is a non-lasting (or absent) connection, 1 lasting up to 4 years, 2 lasting 5-10 years, 3 lasting 11-20 years, 4 lasting more than 20 years, 5 is kinship or marriage (as the strongest connection but available only for the informal type). Using the variables

of the current status and the duration of the connection, we additionally control for the relevance and character of relationship behind a connection.

Regardless of the method of identification, an important manifestation of the heterogeneity of political connections is the origin of the connection in terms of the initiative: whether the banks establish connections (bottom up), or whether they are established by politicians and officials (top down), e.g., due to the importance of the bank for the economy.

To account for this heterogeneity for each banker, we encode an additional variable, which we call "revolving doors" (*revolv*), for each of the 10 types of political connections (giving 40 variables in total). *Revolv* depicts the moment when the connection appeared: the variable is assigned 0 if a political connection was established before banker's affiliation with the bank (before joining the bank's management or getting a stake in the bank's equity), and 1 if a connection was established by a person who is already associated with this bank. Using this variable, we determine the endogenous nature of the connection, that is, whether it is a "top down" or "bottom up" relationship in order to influence the bank's participation in government initiatives or its financial results. We also take into account whose interests are represented by a politically connected banker. A value of 1 for this variable means that the bank earned the attention of government officials, e.g., when the banker receives a state award, or that the banker could establish a connection to somehow improve performance of their bank (including participation or non-participation in government programs), e.g., by being elected to a parliament (Szakonyi 2018). Otherwise, when a person becomes a banker, already with a political connection they may have to behave in accordance with the private interests behind the connection. However, we believe that under certain circumstances it remains likely that their appearance among the owners or managers of the bank is not related to influencing the bank's activities through their political connection. This relates especially the time of joining the bank and does not exclude the possibility of further using the connections of such a banker to affect performance.

We encode these circumstances, with three additional binary variables, which make it possible to more confidently consider a political connection of a particular banker as exogenous, that is, independent of the initial desire to use this connection to influence the business. Firstly, this is the "founder" of the bank (*founder*). According to this variable, a banker gets a value of 1 if the year of starting work in the bank coincides with the year of registration of the bank. Secondly, using the variable of the affiliation of bankers with the bank's parent organization (*parentcomp*), we distinguish those who joined the bank's management or became beneficiaries of the bank, being already associated with the company or owning equity in companies that formally participate in the bank's equity. In order to avoid coding errors, we strictly limit the definition of a parent organization to the following criteria: (1) this bank should not be the main asset of such an

organization, that is, the parent organization cannot be an offshore company through which the banker holds a stake in the bank, or a holding company whose key business is this bank; (2) the share of such a parent organization in the bank's equity should be more than 1% or this company should be owned by one of the direct beneficiaries of the bank. We also include, e.g., a larger parent bank or, in the case of state ownership, federal or regional state property agencies. Thirdly, the kinship variable (*family*) makes it possible to identify a banker who joined the management or ownership of the bank at a time when their relative was already among the managers or owners. For any banker, values of *founder*, *parentcomp*, and *family* variables are constant at the banker level and do not change over time. The values of 1 for any of these three variables gives reason to believe that the appearance of this person among the bank's managers or owners is not related to the political connections they had at that time.

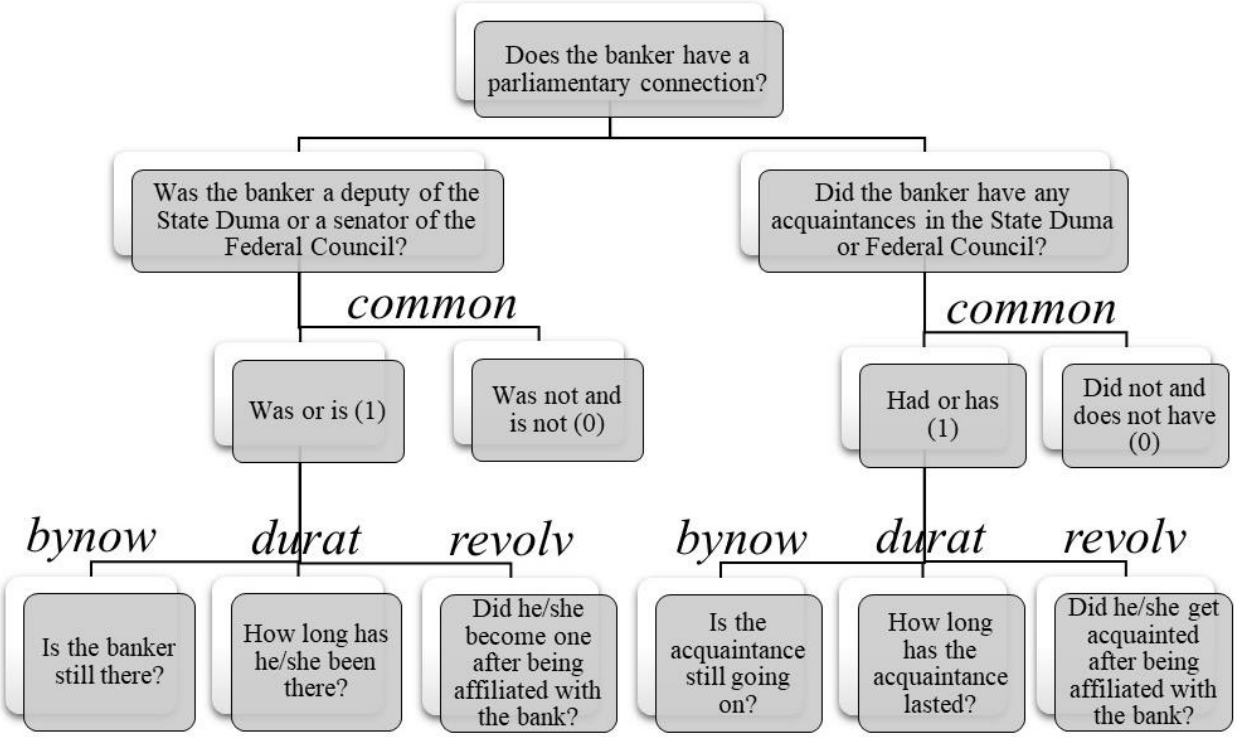
We use these variables in combination with the reverse revolving doors variable (*notrevol*) to encode exogenous connections variables (*exog*). For each banker *i*, this variable was encoded by: $exog_i = notrevolv_i \times (founder_i = 1 | parentcomp_i = 1 | family_i = 1)$, where a banker gets 1 for *notrevolv* if they had a political connection established before joining the bank (oppositely to *revolv*). In this case, a political connection was considered exogenous if a person established it before founding the bank or before joining the bank, being already affiliated with the bank's parent organization or being a relative of another banker from this bank.

Thus, for each banker, a potential carrier of political connections, we initially encode 43 variables: $5\ types(parl|regul|gov|corp|region) \times 2\ approaches(formal|informal) \times 4\ varibles(common|bynow|durat|revolv) + founder + parentcomp + family$.

The encoding algorithm for any of 5 types of connections is shown in Figure 1. Based on this, we count 20 more variables, including exogenous ones as a final goal of the processing: $5\ types \times 2\ approaches \times 2\ varibles(notrevolv|exog)$.

Figure 1

The general algorithm for identifying a banker's political connection (the example of a parliamentary type of political connection)



For the purpose of this study, we aggregate the data on the political connections of individual bankers to obtain bank-year observations. Following (Farag, Dickinson 2020; Houston et al 2014; Halford, Li 2020), we do this in two ways: binary and quantitative. In binary encoding, for *common* political connections and their current status, a bank receives a value of 1 for a year where at least one of the bankers was assigned 1 for the corresponding variable of the appropriate connection type.

For exogenous connection variables on a binary scale, we use the following rule: if a bank has at least one exogenous connection of a particular type and the total number of such exogenous connections is equal to the number of *common* political connections of the same type, then the bank gets 1, and 0 otherwise. With this idea we keep as exogenous variable only those out of 10 connections for which all the bank's connections of this particular type are exogenous. For example, if there are two bank directors who have exogenously identified informal parliamentary connections (*common*), then, in the binary encoding, the bank gets 1 for the variable of exogenous parliamentary informal connections, only if this bank has no other bankers with informal parliamentary connections not identified as exogenous.

Assuming that a larger number of connected bankers may reflect a bank's greater ability to interact with officials, on a quantitative scale, for each of 10 types of connections, we use the

natural logarithm of the number of politically connected bankers, and the number who have still ongoing connections for *common* political connections and their current status. For the revolving doors variables, it is necessary to take into account the ratio of interests that may be represented by politically connected bankers. Therefore, we use the proportion of bankers who have a particular type of connection after joining managers or owners of the bank from the total number of bankers with the *common* connection of the same type.

Variables of duration are transformed to a quantitative scale in two ways. The first one is simply a maximum ordinal value of the duration variable (from 0 to 5) among all the bankers with connections of one kind. The second is the mean value of the natural logarithm of the number of years for which a connection lasts. The average is taken respectively to all bankers with a *common* political connection of this type. This variable serves as a measure of the mean quality of connections of a given type for a particular year.

In addition to a variable for political connections, for each bank-year observation, we aggregate the parent organization variable by taking the proportion of bankers with a value of 1 for this variable from the total number of all encoded bank managers and owners. This variable might indicate a bank's tendency to focus more on the interests of the holding company (usually a non-banking business) which may diverge from a bank's normal activities.

In the empirical analysis, we also use such institutional features as the form of ownership and the size. The control of a bank through state ownership directly or through state-owned companies (Vernikov 2014: 5-6) may indicate the influence of political interests on the bank's activities (Sapienza 2004; Boateng, Liu, Brahma 2019). Some researchers consider state ownership as a proxy for political connections (Preuss, Königsgruber 2021). We believe it includes not only contact, but formal subordination of the directors and the CEO of the state-owned bank to the authority that appointed them. State ownership also implies other institutional features: higher market power, the control of other smaller banks, participation in infrastructure projects, presence in the markets of strategically important countries for the Russian government, the employment of officials' children and others (Vernikov 2014). For this reason, we use state ownership as an important explanatory variable, but do not consider it as a political connection. For the form of ownership, we use four binary variables: two for state ownership and two for foreign ownership. The first one is ownership of more than 50% of a bank's equity (*SOB* and *ForB* for state-owned and foreign banks, respectively), while the second one is just any non-zero share of a state entity or foreign business (*SOSh* and *ForSh*).

The bank's size reflects the structural power of the bank, which has an indirect influence resulting from the unwillingness of politicians to make decisions that would harm systemically prominent businesses (Fairfield 2015: 414). The source of a bank's structural power is traditionally

considered to be their unique ability to saturate the economy with money supply, financial intermediation between individuals and businesses, and, in recent years, their geo-economic role for their states of residence (Dafe et al. 2022). We use the natural logarithm of the bank's net assets as a proxy for its size.

For another possible explanatory variable influencing the political connections of Russian banks, we use the binary variable for the foundation of the bank usually in the second half of 1990 and early 1991 on the basis of one of the Soviet "spetsbanks" (*Spets*). This origin usually comes from the founders of new commercial banks, or those close to them, having had influence and connections in the regional structures of the USSR State Bank, e.g., former employees of Soviet "spetsbanks", local officials and deputies close to them, or "red directors" – the heads of Soviet enterprises, the fragments of which in many cases became the foundations of new commercial banks. Berkowitz, Hoekstra and Schoors (2014) showed that in the mid-1990s, Russian banks formed from spetsbanks were the most politically connected, mainly through their boards, and were more active in lending to state-owned enterprises. However, data from the 2000s shows that, against the common trend towards an increase of politically driven lending in the years before the presidential elections in Russia, such banks did not demonstrate a statistically significant increase in loans issued during these years, and after the elections they did not experience an increase in bad loans (Fungáčová et al 2023: 907-911).

All the bank-level variables discussed above, are presented in Table 1. Due to the great number of identical variables for 5 types by 2 approaches each, the table gives an example of only formal parliamentary (*parl*) connections. But the computation would be the same for any informal connections and regulatory (*regul*), governmental (*gov*), corporate (*corp*), regional (*region*) political connections.

Table 1

The variables of the political connections and other institutional factors:
an example of the formal parliamentary political connection

Variable name	Computation	Notation
$Formal\_parl\_bin_{jt}$	$\max(common_{ijt})$ where $common_{ijt}$ – binary variable, for i banker of j bank in t year	Binary variable of the *common* political connection of parliamentary type in the direct identification approach, denoting if there is at least one banker with the such connection
$Formal\_parl\_bynow\_bin$	$max(bynow_i)$ where $bynow_{ijt}$ – binary variable, for i banker of j bank in t year	Binary variable of the current status of political connection of parliamentary type in the direct identification approach, denoting if there is at least one banker with the such connection
$Formal\_parl\_exog_{jt}$	$\begin{cases} 1 \text{ if } max(exog_{ijt}) = 1 \\ sum(exog_{ijt}) = sum(common_{ijt}) \\ 0 \text{ if } max(exog_{ijt}) = 0 \mid \\ sum(exog_{ijt}) < sum(common_{ijt}) \end{cases}$ where $exog_{ijt}$ and $common_{ijt}$ – binary variables of the same connections type, for i banker of j bank in t year	Binary variable of the exogenous political connection of parliamentary type in the direct identification approach, denoting if there is at least one banker with the such exogenous connection and there are no other ones with the endogenous connection of the same type
$Formal\_parl\_ln_{jt}$	$ln(sum(common_{ijt}) + 1)$ where $common_{ijt}$ – binary variable, for i banker of j bank in t year	Natural logarithm of the number of bankers with the common political connection of parliamentary type in the direct identification approach
$Formal\_parl\_bynow\_ln_{jt}$	$ln(sum(bynow_{ijt}) + 1)$ where $bynow_{ijt}$ – binary variable, for i banker of j bank in t year	Natural logarithm of the number of bankers with the still ongoing political connection of parliamentary type in the direct identification approach
$Formal\_parl\_revolv\_pr_{jt}$	$\frac{sum(revolv_{ijt})}{sum(common_{ijt})}$ where $revolv_{ijt}$ and $common_{ijt}$ – binary variables of the same connections type, for i banker of j bank in t year	Proportion of the number of bankers with the political connection of parliamentary type in the direct identification approach, established after getting affiliated with the bank, from the total number of bankers with the political connection of the same type
$Formal\_parl\_durat\_ord_j$	$max(ordered(durat_{ijt}))$ where $durat_{ijt}$ – number of years a connection has lasted for, and function *ordered* converts it into values from 0 to 5, for i banker of j bank in t year	Ordinal variable of the maximum number of years, which the political connection of parliamentary type in the direct identification approach has lasted for, among all bankers with the lasting political connection of the same type
$Formal\_parl\_durat\_ln_{jt}$	$\frac{sum(ln(durat_{ijt} + 1)}{sum(common_{ijt})}$ where $durat_{ijt}$ and $common_{ijt}$ – variables of the same connections type, for i banker of j bank in t year	Mean natural logarithm of the number of years, which the political connection of parliamentary type in the direct approach has lasted for, taken respectively to the total number of bankers with the political connection of the same type

$Parentcomp_{jt}$	$\frac{sum(parentcomp_{ijt})}{sum(ijt)}$ where $parentcomp_{ijt}$ – binary variable, for i banker of j bank in t year	Proportion of the number of bankers who are affiliated with the "parent" organization of the bank from the total number of bankers
SOB_{jt} and $ForB_{jt}$	$\begin{cases}1, \text{if } share_{jt} > 50\% \\ 0, \text{if } share_{jt} \leq 50\%\end{cases}$ where $share_{jt}$ – share of state-owned or foreign entity in j bank′s equity in t year	Binary variables of the state or foreign control over the bank through ownership
$SOSh_{jt}$ and $ForSh_{jt}$	$\begin{cases}1, \text{if } share_{jt} > 0\% \\ 0, \text{if } share_{jt} = 0\%\end{cases}$ where $share_{jt}$ – share of state-owned or foreign entity in j bank′s equity in t year	Binary variables of the state or foreign participation in the bank's equity
$lnNA_{jt}$	$\ln(NA_{jt})$ where NA_{jt} – net assets of j bank in t year	The bank's size
$Spets_j$	$\begin{cases}1, \text{if bank } j \text{ was formed or developed on the basis of the former Soviet "spetsbank} \\ 0, \text{otherwise}\end{cases}$	Binary variable of the bank's foundation or development on basis of the former Soviet spetsbanks

Analysis of political connections

Despite the fact that out of 2,598 coded bankers from 115 banks, only 22% had at least one political connection, the distribution of politically connected bankers by bank confirms that political connections are widespread in the Russian banking sector: over the 7 years from 2015 to 2021, 102 out of 115 banks (89%) had at least one banker with a political connection.

The distribution of banks with connections of each of the 5 types of direct and indirect encodings, and by variables of ownership and spetsbank is shown in Table 2. The rarest connections are those with regulatory authorities, work experience in the federal parliament as a deputy or senator, or in federal ministries and departments. Informal acquaintances among regional authorities, federal executive bodies, or state-owned companies occur in almost half of the banks.

On average, only 7 banks were fully state owned, and there were 8 more banks in which government agencies or state-owned companies had a non-zero ownership share. Foreign equity in Russian banks is more common. In our sample, 29 banks were founded or developed from spetsbanks.

Table 2

Number of banks with at least one *common* connection of each type by year

	Any connection	Formal parliamentary	Informal parliamentary	Formal regulatory	Informal regulatory	Formal governmental	Informal governmental	Formal corporate	Informal corporate	Formal regional	Informal regional	State control	State participation	Foreign control	Foreign participation	Spetsbank
2015	99	13	41	16	20	12	56	35	55	43	61	7	14	10	29	29
2016	102	13	41	17	23	13	57	36	54	44	62	8	16	10	28	29
2017	102	13	43	14	24	12	56	35	55	41	62	7	15	10	28	29
2018	102	12	44	17	22	11	57	35	55	40	62	7	15	10	26	29
2019	101	12	44	18	21	11	58	35	54	39	61	7	15	11	24	29
2020	103	12	44	19	20	13	59	38	54	40	63	9	17	11	24	29
2021	102	13	43	19	19	14	58	39	53	38	59	9	17	11	24	29
median	102	13	43	17	21	12	57	35	54	40	62	7	15	10	26	29

For variables of the current status of connections (*bynow*) and "revolving doors" (*revolv*), we show their average proportions from the total number of bankers with corresponding *common* political connections (not from all bankers). For convenience, the proportions were averaged by bank and their median values by year are presented in Table 3. For all 5 types of connections (except regional), ongoing political connections are more frequent among bankers with informal acquaintances than among those with job experience in state bodies or state-owned companies. In other words, on average, informal connections are more frequent, and more rarely bankers work in the bank (or own it) and hold political or public office at the same time. Though bankers' current employment in state-owned companies is even more frequent than past employment.

Table 3

Average proportions for current status (*bynow*) and "revolving doors" (*revolv*) variables being equal to 1, by banks, median values by year

Type of political connection	parliamentary	regulatory	governmental	corporate	regional
Formal current status	0.250	0.043	0.246	0.568	0.372
Informal current status	0.547	0.515	0.394	0.667	0.307
Formal "revolving doors"	0.385	0.000	0.095	0.310	0.253
Informal "revolving doors"	0.512	0.455	0.444	0.488	0.484

The same conclusion can be made for the "revolving doors" variables. For all types of connections, both formal and informal, (except informal parliamentary connections) most connected bankers had established connections before they joined the bank's board, became part of the management team, or took ownership. However, informal connections are more frequently established by bankers after they join the bank. The general conclusion on the current status and "revolving doors" variables is that, on average, they can provide an additional source of explanation for variance in bank business choices (e.g., participation in government credit support programs), since, as the proportions show, they markedly differ from the *common* political connections.

Table 4

Distribution of the number of banks by the maximum duration of connections in 2021

Type of political connection	Duration, years	parliamentary	regulatory	governmental	corporate	regional
Formal duration	0	99	93	99	73	74
	1-4	5	10	2	7	3
	5-10	6	6	6	15	13
	11-20	2	3	4	13	18
	20+	0	0	1	4	4
Informal duration	0	75	94	70	67	72
	1-4	5	2	5	3	1
	5-10	11	6	10	10	10
	11-20	12	5	13	20	6
	20+	2	5	8	9	8
	kinship	7	0	6	3	15

A review of the distribution of bank connections by their maximum duration for 2021 is presented in Table 4. According to work experience (formal connections), connections of more than 10 years are more common in state-owned companies and regional authorities, and only a few banks have such long-term connections with the federal authorities. This is not the case with informal connections. Here, long-lasting connections are more often maintained with representatives of the federal government and state-owned companies. Slightly fewer banks have such strong contacts in the federal parliament. Long-term connections with regulators are quite rare, both in terms of work experience and acquaintances.

Table 5

Number of banks with the exogenous political connections, median by year

Type of political connection	parliamentary	regulatory	governmental	corporate	regional
Formal exogenous	2	3	1	6	8
Informal exogenous	9	5	11	14	9

Since the between-years variation in the number of banks with at least one exogenous political connection of a particular type is quite low, in Table 5 we present the median by year values. Our encoding of the exogenous (not dependent on financial performance) political connections is not perfect because it ignores those possible true exogenous connections that cannot be caught by the *founder*, *parentcomp*, or *family* variables as proxies for probable reasons why bankers become managers or owners of the bank. But those we catch are reliable and that is why there are not many banks with such connections for any of the types.

Table 6

Descriptive statistics of quantitative political connections variables

	N	mean	std	min	25%	50%	75%	max
Formal_parl_ln	784	0.082	0.234	0.000	0.000	0.000	0.000	1.386
Informal_parl_ln	784	0.329	0.446	0.000	0.000	0.000	0.693	1.946
Formal_regul_ln	784	0.118	0.291	0.000	0.000	0.000	0.000	1.946
Informal_regul_ln	784	0.167	0.362	0.000	0.000	0.000	0.000	1.792
Formal_gov_ln	784	0.115	0.357	0.000	0.000	0.000	0.000	2.197
Informal_gov_ln	784	0.477	0.535	0.000	0.000	0.693	0.693	2.303
Formal_corp_ln	784	0.373	0.610	0.000	0.000	0.000	0.693	2.639
Informal_corp_ln	784	0.472	0.548	0.000	0.000	0.000	0.693	2.303
Formal_region_ln	784	0.366	0.537	0.000	0.000	0.000	0.693	2.197
Informal_region_ln	784	0.568	0.594	0.000	0.000	0.693	1.099	2.565
Parentcomp	784	0.296	0.225	0.000	0.116	0.250	0.467	0.846
lnNA	784	17.031	2.072	13.239	15.308	16.848	18.489	23.595

Table 6 shows the descriptive statistics for the number of bank connections per year. On average, one bank has the most politically connected directors and CEOs with informal regional and governmental connections. More than 75% of the banks do not have a single banker with job

experience in federal state bodies. For all other types of connections, except for regulatory ones, at least a quarter of the banks have at least one politically connected director. The distributions of banks by the proportion of managers/owners affiliated with the parent organization and by the logarithm of net assets are close to normal, but somewhat skewed to the right. That means there is a group of banks that are noticeably bigger and more dependent on some parent business in terms of their boards.

Patterns in political connections: cluster analysis

The large number and wide variety of political connection types explored above might seem difficult to be incorporated into any kind of the analysis related to the influence of political connections on bank decision-making and financial outcomes. In this section we go beyond the individual institutional features (connections, size, dependence on another business) and explore the larger patterns for different groups of banks.

To identify such patterns, we use the same variables, including the logarithm of the number of bankers with *common* connections, with ongoing connections, the proportion of connections established by bankers after joining the bank, and the average logarithm of the duration of connections by 10 types each. A total of 40 quantitative connections variables, and 4 variables of the degree of control over the bank by state and foreign capital, the variable of dependence on the parent organization and the proxy variable of the bank's size. We do not use the spetsbank variable, because, in our opinion, it reflects the bank's current position in the sector to a lesser extent, and the institutional features behind it are not clear enough.

For the cluster analysis, we reduced the dimension of the data on political connections, retaining only 10 out of the 40 variables. Since we are exploring meaningful differences in the connections of banks with different political institutions and their representatives, for each of the 5 types of connections we derived 2 principal components. Each of them was obtained from 8 correlated quantitative variables of connections: by 4 for direct (job experience) and indirect (acquaintances) identification: *common*, *bynow*, *revolv* and *durat*. The details on the Principal Components Analysis (PCA) and its findings are presented in Appendix.

The 10 new variables obtained by PCA, and the variables for ownership forms, the parent organization, and size were used to conduct hierarchical clustering. To get groups of banks with minimal variance within each one, we applied Ward's method for linking observations to clusters (Ward 1963). Figure 1 shows a dendrogram of the clustering. We chose the final division into five clusters for the interpretability of the resulting groups and their completeness: the distance threshold – red horizontal line – is equal to 13. According to the belongness to a particular group, the cluster nodes are colored differently and numbers are assigned. The cluster numbers

correspond to the order from the least influential banks within the cluster 1 (fewer connections and smaller size) to the most influential cluster 5 (more connections and greater size).

If we chose a higher distance for the cutline (closer to 14-15), we would get only three clusters reflecting mainly inter-cluster difference in the size of banks. A threshold value around 12 or less would give us seven clusters instead of five, dividing clusters 1 and 5 into two each, making final groups less coherent and smaller, but adding little to interpretation in terms of connection types. The branches of the dendrogram also show that clusters 1 and 3 differ from each other by the same distance as clusters 2 and 4 (the distance between them is approximately 14); the distance between cluster 5 and the union of clusters 2 and 4 is already about 20; and the combined clusters 1 and 3 (mainly small and medium-sized banks) and the union of the remaining clusters 2, 4 and 5 differ the most (the distance is 30).

Figure 1

Hierarchical clustering of banks

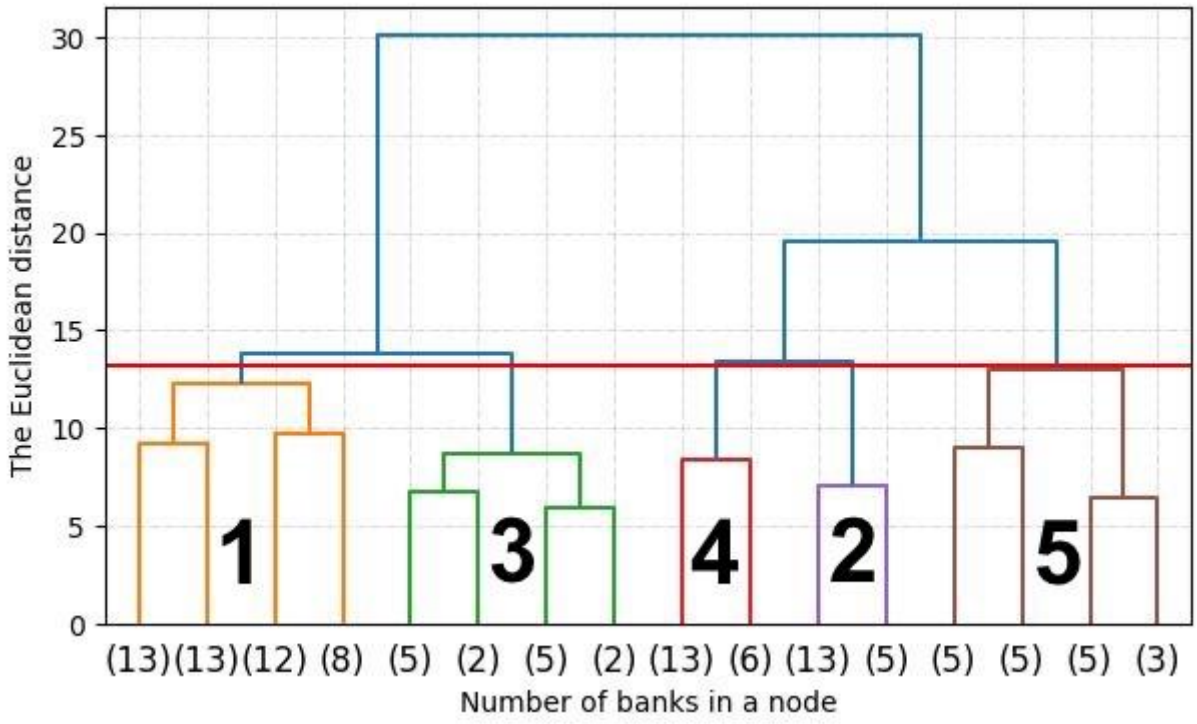


Table 7

Proportions of banks with at least one common political connection of the appropriate type by cluster

Cluster	Cluster name	Number of banks	Type of connection	Proportion of banks from cluster with at least one connection of the type					Median number of one bank's connections of the type					State control	State participation	Foreign control	Foreign participation	Parent organization	Size	Spetsbank
				parliamentary	regulatory	governmental	corporate	regional	parliamentary	regulatory	governmental	corporate	regional							
1	Small regionals	46	Form	0.04	0.09	0.07	0.17	**0.57**	0	0	0	0	1	0.04	0.11	0.01	0.11	0.28	15.5	0.37
			Infor	0.15	0.11	0.41	0.35	**0.85**	0	0	0	0	1							
2	Unconnected outsiders	18	Form	0	0.17	0.11	0.22	0	0	0	0	0	0	0.05	0.05	0.45	0.50	0.35	18.6	0.11
			Infor	0.17	0.11	0.22	0.06	0.11	0	0	0	0	0							
3	Elected from regions	14	Form	**0.5**	0.07	0.07	0.14	**0.64**	0.5	0	0	0	1	0.00	0.07	0.00	0.07	0.22	15.7	0.14
			Infor	**1**	0	0.43	0.21	**0.57**	1	0	0	0	1							
4	Influential corporators	19	Form	0.05	0.16	0	**0.58**	0	0	0	0	1	0	0.02	0.06	0.11	0.28	0.35	17.6	0.05
			Infor	0.37	0.37	**0.68**	**1**	0.11	0	0	1	1.5	0							
5	State-held federals	18	Form	0.11	0.39	0.33	**0.61**	0.28	0	0	0	2.5	0	0.28	0.47	0.00	0.38	0.29	20.2	0.39
			Infor	**0.67**	0.44	**0.72**	**0.83**	**0.61**	1	1	2	2	1							

Next, we present the grouping of banks by clusters. Table 7 characterizes the clusters by the proportions of banks with particular connections and the median numbers of bankers who have them, by the proportions of banks in clusters by different forms of ownership, connectedness with parent organizations, and size, as well as by proportion of former spetsbanks in clusters.

The first cluster, which we call "small regionals", is the largest and contains 46 banks, e.g. "Viking", the first commercial bank of Soviet Russia based on the Soviet-Swedish cooperative in 1989; "Chelindbank", founded by the former head of the Soviet spetsbank regional branch, the world's oldest banker in 2011 Mikhail Bratyshkin, and still owned by the families of the co-founding managers; and Khakass Municipal Bank, acquired by the Abakan city administration in 1997 and developed with the financial support of the owner of a large local energy company. Most of this group are small and medium-sized banks, sometimes with state or foreign ownership, whose political connections are often limited to the region where the bank's head office is based. 85% of the banks in this group have at least one representative associated with regional or local authorities, and 37% of them were formed or developed on the basis of local branches of Soviet spetsbanks.

The second cluster of "unconnected outsiders" includes 18 large or medium-sized banks, half of which are foreign owned. The banks in this group have virtually no significant political connections but have a high percentage of connections with their parent, most often non-financial businesses: on average, 35% of the beneficiaries or managers of such banks work in (or own) companies that are the formal owners of the bank and for which this bank is not a key business. Examples from this cluster are BKS bank, a subsidiary of the large Russian financial group BKS, positioned as a bank for investors; "Bystrobank", a medium-sized Udmurt bank, purchased in the mid-2000s by major Russian partners of the Scandinavian banking group Nordea; and large foreign banks which are subsidiaries of internationally well-known banking holdings, such as "Raiffeisenbank" and "Citibank".

The third cluster contains 14 banks, all of which have informal connections with the Russian federal parliament, and half of the directors or owners are former or current deputies or senators. Examples from this cluster are "Energobank", which was acquired in 2003 by Kazan businessmen who collected various business assets in the Republic of Tatarstan, the Khairullin brothers, one of whom was a State Duma deputy from 2003 until his death in 2020; Ingosstrakh Bank, owned by Oleg Deripaska and several nominal beneficiaries, including his uncle, Pavel Yezubov, a State Duma deputy from 2007-2021; "Kuzbasskhimbank", a small Kemerovo bank, whose founder, a freestyle wrestling coach in Soviet times, is a member of the Executive Committee of the Kemerovo Region Wrestling Federation along with other prominent local figures, who were State Duma deputies and senators of the Federation Council. Regional connections are also widespread in this group. For these reasons, we call this cluster "elected from

regions". The banks themselves are mostly small or medium-sized, without state or foreign ownership. On average, the banks in this group are least formally connected with larger business through ownership or work experience of their managers.

The fourth cluster – "influential corporators" – unites 19 large and medium-sized banks, sometimes with foreign ownership. The banks in this cluster have extensive connections in federal authorities, but above all they are closely connected with Russian state-owned companies or corporations, both informally and through work experience. Half of them have more than one director or a CEO with contacts in state-owned businesses. This is probably related to the fact that such banks also have a high percentage of bankers dependence on the parent organizations. Examples from this cluster are "Metallinvestbank", a bank of the owner of the United Metallurgical Company; "Loko-Bank", associated with major Moscow construction developers and the Russian Railways business contractor; "Expobank", which was purchased from Barclays Group in 2011 by Igor Kim, who has an honorary award from the President of Russia and extensive corporate and political connections; and "Forstadt", owned by Orenburg businessmen who are Gazprom's partners in a gas processing company.

The fifth cluster consists of 18 of the largest federal banks, either state or foreign owned, with political connections of all possible types. Among them are "VTB", the second largest Russian bank; "Absolut Bank", affiliated with the largest non-governmental pension fund of Russian Railways and the state corporation VEB.RF; "Alfa-Bank", the largest private Russian bank; "Surgutneftegazbank", the subsidiary bank of the large oil and gas producing company, the structure of whose owners has never been disclosed; "Sinara-Bank", part of a Russia diversified holding company engaged in construction development, mechanical engineering and other businesses; and Bank "DOM.RF", the subsidiary bank of the state-owned corporation for housing construction development. More than half of banks of this cluster have 2 or more directors with connections in the Russian government and state-owned corporations. Although the spetsbank variable was not taken into account during clustering, this cluster also has the highest number of banks formed from spetsbanks – 39%.

Conclusion

This paper introduced a new approach to the identification and operationalization of business political connections and applied it to the manual collection, description, and clustering analysis of the dataset of 2,598 bankers who owned or worked in 115 Russian banks from 2015 to 2021. Based on the literature and considering the institutional specifics of Russia, when collecting data on potential holders of political connections, we examined (1) how to identify a connection as formal or informal: either direct (a person's experience of holding official positions), or indirect

(any possible acquaintances with officials or politicians), (2) the type of political connection depending on the range of competencies and exchangeable information behind the connection (parliamentary, regulatory, governmental, corporate, regional), (3) the current status of the connection (ongoing or not), (4) the duration of the connection as a measure of the reliability of relationships, (5) when the connection was established, indicating a possible predominance of interests behind the connection: either a banker has already been affiliated with the bank (then the bank's interests may prevail), or a previously politically connected person has become a banker (political interests may prevail), and (6) additional circumstances, such as a banker being a founder of the bank, or having been transfered to work in the bank from a position in the bank's parent company, or employment by kinship. These facts may reinforce confidence in the exogeneity of political connections. All this information about bankers helps to describe, and take into account for subsequent analysis, the heterogeneity of political connections which, without appropriate processing, may lead to misleading conclusions on their effects.

This approach allowed us to describe in detail the modern institutional features of the Russian banking sector in terms of the nature of the relationships established between banks and the state. We confirmed that the sector is highly politically embedded: every fifth Russian high-level banker is politically connected and nine out of ten banks in our sample have at least one such representative. Although, the spread of connections is uneven: (1) bank directors, board chairs, and owners are connected more often than managers or CEOs, (2) only 10-15% of the sample have at least one banker who have held an official position in the federal state bodies (parliamentary, regulatory or governmental) while 30-35%% of banks have such formal political connections in the state-owned companies or regional authorities, (3) connections identified on the indirect grounds, such as acquaintances, are more common, among which the most frequent (typical for about a half of banks) are informal connections with regional authorities and the federal government bodies, (4) a smaller proportion of all types of formal political connections, with the exception of corporate ones, are ongoing or were established while working at the bank, but the number of such indirect connections is about a half, (5) informal connections of any type on average last longer than formal ones, and only a few banks have political connections based on work experience in various federal authorities that have lasted for more than 10 years, and (6) in only 14 banks can political connections of one type or another be considered exogenous, that is, established regardless of the desire to politically influence the bank's activities or its financial results.

The latter is especially important, since different types of connections can be closely related to each other and to other institutional bank characteristics, such as the form of ownership (state or foreign, control or participation), the size or presence of a parent, usually non-banking,

company. The results of the cluster analysis support this and allow us to identify five groups of banks with similar patterns of political connections, size, and state ownership: from small, mostly private banks with connections limited to the region of their registration, to the largest banks with state participation and most types of political connections, and groups with other combinations of these variables in-between.

This research makes two main contributions to the study of business political activity and state interference via bank political connections. The theoretical one is the confirmation of the widespread and heterogeneous nature of political connections in the Russian banking sector and a more detailed understanding of the penetration of political interests into the activities of banks. The practical one is proposition of the set of variables identifying the origins, relevance, and maturity of political connections which produce additional variation between banks and may facilitate a better and more theoretically grounded estimation of the effects of political connections on the business choices and financial performance of banks.

References

Abdelsalam, O., Mollah, S., & Tortosa-Ausina, E. (2017). Political connection and bank in(efficiency). *Available at SSRN 2933403*.

Berkowitz, D., Hoekstra, M., & Schoors, K. (2014). Bank privatization, finance, and growth. *Journal of Development Economics*, *110*, 93-106.

Bertrand, M., Kramarz, F., Schoar, A., & Thesmar, D. (2018). The cost of political connections. *Review of Finance*, *22*(3), 849-876.

Bian, W., Ji, Y., & Wang, P. (2021). Political connections and banks' credit smoothing behavior: Incentives and costs. *Pacific-Basin Finance Journal*, *68*, 101606.

Blau, B. M., Brough, T. J., & Thomas, D. W. (2013). Corporate lobbying, political connections, and the bailout of banks. *Journal of Banking & Finance*, *37*(8), 3007-3017.

Boateng, A., Liu, Y., & Brahma, S. (2019). Politically connected boards, ownership structure and credit risk: Evidence from Chinese commercial banks. *Research in International Business and Finance*, *47*, 162-173.

Carney, R. W., Child, T. B., & Li, X. (2020). Board connections and crisis performance: Family, state, and political networks. *Journal of Corporate Finance*, *64*, 101630.

Carretta, A., Farina, V., Gon, A., & Parisi, A. (2012). Politicians 'on board': do political connections affect banking activities in Italy? *European Management Review*, *9*(2), 75-83.

Chavaz, M., & Rose, A. K. (2019). Political borders and bank lending in post-crisis America. *Review of Finance*, *23*(5), 935-959.

Chu, Y., & Zhang, T. (2022). Political influence and banks: Evidence from mortgage lending. *Journal of Financial Intermediation*, *52*, 100982.

Correia, M. M. (2014). Political connections and SEC enforcement. *Journal of accounting and Economics*, *57*(2-3), 241-262.

Dafe, F., Hager, S. B., Naqvi, N., & Wansleben, L. (2022). Introduction: The structural power of finance meets financialization. *Politics & Society*, *50*(4), 523-542.

Disli, M., Schoors, K., & Meir, J. (2013). Political connections and depositor discipline. *Journal of Financial Stability*, *9*(4), 804-819.

Faccio, M. (2006). Politically connected firms. *American economic review*, *96*(1), 369-386.

Fairfield, T. (2015). Structural power in comparative political economy: perspectives from policy formulation in Latin America. *Business and Politics*, *17*(3), 411-441.

Fan, J. P., Wong, T. J., & Zhang, T. (2007). Politically connected CEOs, corporate governance, and Post-IPO performance of China's newly partially privatized firms. *Journal of financial economics*, *84*(2), 330-357.

Farag, H., & Dickinson, D. (2020). The power of Connections: Evidence from financial companies. *Journal of Corporate Finance*, *64*, 101643.

Fisman, R. (2001). Estimating the value of political connections. *American economic review*, *91*(4), 1095-1102.

Fungáčová, Z., Schoors, K., Solanko, L., & Weill, L. (2023). Staying on top: Political cycles in private bank lending. *Journal of Comparative Economics*, *51*(3), 899-917.

García-Gómez, C. D., Zavertiaeva, M. A., Kirpishchikov, D., & López-Iturriaga, F. J. (2023). Board social capital in an emerging market: Do directors' connections affect corporate risk-taking? *Borsa Istanbul Review*, *23*(5), 1173-1190.

Gel'man, V. (2016). The vicious circle of post-Soviet neopatrimonialism in Russia. *Post-Soviet Affairs*, *32*(5), 455-473.

Ghosh, S. (2023). Political connections and bank behaviour. *Economic Notes*, *52*(1), e12209.

Goldman, E., Rocholl, J., & So, J. (2009). Do politically connected boards affect firm value? *The review of financial studies*, *22*(6), 2331-2360.

Halford, J. T., & Li, C. (2020). Political connections and debt restructurings. *Journal of Corporate Finance*, *65*, 101497.

Hasan, I., Jackowicz, K., Kowalewski, O., & Kozłowski, Ł. (2017). Politically connected firms in Poland and their access to bank financing. *Communist and Post-Communist Studies*, *50*(4), 245-261.

Hillman, A. J. (2005). Politicians on the board of directors: Do connections affect the bottom line? *Journal of management*, *31*(3), 464-481.

Hillman, A. J., & Hitt, M. A. (1999). Corporate political strategy formulation: A model of approach, participation, and strategy decisions. *Academy of management review*, *24*(4), 825-842.

Houston, J. F., Jiang, L., Lin, C., & Ma, Y. (2014). Political connections and the cost of bank loans. *Journal of Accounting Research*, *52*(1), 193-243.

Hung, C. H. D., Jiang, Y., Liu, F. H., Tu, H., & Wang, S. (2017). Bank political connections and performance in China. *Journal of Financial Stability*, *32*, 57-69.

Hwang, B. H., & Kim, S. (2009). It pays to have friends. *Journal of financial economics*, *93*(1), 138-158.

Kern, A., & Amri, P. (2021). Political credit cycles. *Economics & Politics*, *33*(1), 76-108.

Ledeneva, A. V. (2006). *How Russia really works: The informal practices that shaped post-Soviet politics and business*. Cornell University Press.

Lepers, E. (2023). Surfing the credit wave: Government popularity as driver of credit cycles. *European Journal of Political Economy*, 102456.

Marques, I. (2017). Political Connections and Non-Traditional Investment: Evidence from Public-Private Partnerships in Vocational Education. *Higher School of Economics Research Paper, WP BRP*, *56*.

Okhmatovskiy, I. (2010). Performance implications of ties to the government and SOEs: A political embeddedness perspective. *Journal of management studies*, *47*(6), 1020-1047.

Papadimitri, P., Pasiouras, F. (2022). Political Connections and Banking Industry Performance: A Cross-country Analysis. *Review of Corporate Finance*, Forthcoming.

Preuss, S., & Königsgruber, R. (2021). How do corporate political connections influence financial reporting? A synthesis of the literature. *Journal of Accounting and Public Policy*, *40*(1), 106802.

Sapienza, P. (2004). The effects of government ownership on bank lending. *Journal of financial economics*, *72*(2), 357-384.

Sharafutdinova, G. (2010). *Political consequences of crony capitalism inside Russia*. University of Notre Dame Press.

Su, Z., & Fung, H.-G. (2013). Political Connections and Firm Performance in Chinese Companies. *Pacific Economic Review*, *18*(3), 283–317.

Szakonyi, D. (2018). Businesspeople in elected office: Identifying private benefits from firm-level returns. *American Political Science Review*, *112*(2), 322-338.

Tihanyi, L., Aguilera, R. V., Heugens, P., Van Essen, M., Sauerwald, S., Duran, P., & Turturea, R. (2019). State ownership and political connections. *Journal of Management*, *45*(6), 2293-2321.

Trifonov, D. (2018). Political affiliation in corporate governance: International studies review and their implications for the Russian corporate environment (in Russian). *Vestnik moscovskogo universiteta. Seria 6. Economica*, *2*, 118-148.

Trifonov, D. (2021). Political connections of Russian corporations: Blessing or curse? *Journal of Behavioral and Experimental Finance*, *29*, 100458.

Vernikov, A. (2014). "National Champions" in Russia's Banking Services Market. *Problems of Economic transition*, *57*(4), 3-25.

Wang, L., Menkhoff, L., Schröder, M., & Xu, X. (2019). Politicians' promotion incentives and bank risk exposure in China. *Journal of Banking & Finance*, *99*, 63-94.

Ward Jr, J. H. (1963). Hierarchical grouping to optimize an objective function. *Journal of the American statistical association*, *58*(301), 236-244.

APPENDIX

Procedure for encoding political connections of banks using direct and indirect approaches

To encode the political connections of each bank in the sample, we compiled a list of the bank's owners holding more than 1% of shares and disclosed by the bank, all members of the supervisory board, all members of the collegial executive body (CEOs) and the chief accountant who held their positions in at least one year from 2015 to 2021 period.

Then, for each person on the list, we recorded the facts of job experience and positions held in government bodies, departments and companies, that signaled the presence of a *common* connection. Examples of such bodies, and positions held in them, coded with the value "1" for a person on the list, are given in Table A.1. The first source of information on such experience were quarterly reports and publications published by banks, disclosing the qualifications and work experience of bank executives for at least the past 5 years. In the absence of such information in the official publications of the bank, each person on the list was checked for the presence of any bibliographic information on the network through the Yandex search engine. The main sources of biographies and work experience were pages about these persons on portals such as tadviser.ru, whoiswhopersona.info, wikipedia.org, as well as pages of federal and regional government bodies containing the biography of the person (if the person had work experience in these bodies).

If any facts corresponding to the presence of a formal political connection of one of the five types were discovered, this information was cross-checked using an additional search query. If the fact was confirmed from the biography in other open sources, the value "1" was assigned for the person under the corresponding type of connection. The variables of the moment the connection arose (*revolv*), the current status (*bynow*) and duration (*durat*) of the connection were encoded in the same way, according to the algorithm (see Figure 1).

Next, all persons from the list were checked for the presence of a political connection of one of the five types using an informal approach (indirect identification). A search query was made for each person in the Yandex system. The query, in addition to the person's name and the name of the bank, could also be accompanied by such marker words as "power", "government", "connections", "corruption". In case of detection of any publications about events involving the person of interest, they were checked for information about acquaintances or other indirect facts. Examples of such information, supporting the person's connectedness, are also presented in Table A.1. Similarly, the variables *revolv*, *bynow* and *durat* were encoded for every person on the list.

Table A.1

Examples of information on the presence of political connections

Type of connection	Formal approach: work experience (j)	Informal approach: acquaintance (a)
parliamentary (*parl*)	Deputy of the State Duma of the Federal Assembly of the Russian Federation in 2018-2021, Head of the Secretariat of the First Deputy Chairman of the State Duma of the Federal Assembly of the Russian Federation; Member of the Federation Council of the Federal Assembly of the Russian Federation from the Sakhalin Region in 2012-2017	Member of the Supreme Council of the United Russia party; son of a member of the Federation Council of the Federal Assembly of the Russian Federation from the Sverdlovsk Region in 2010-2021; partner of a member of the Federation Council of the Federal Assembly of the Russian Federation from the Kabardino-Balkarian Republic in 2014-2020; member of the Commission on Federal, Interregional and Regional Socio-Economic Policy under the Chairman of the Federation Council of the Russian Federation
regulatory (*regul*)	acting General Director at the Agency for Restructuring of Credit Organizations from 1998 to 2005; deputy head of the Main Directorate of the Central Bank of the Russian Federation for St. Petersburg	has known E. Nabiullina since his time in the Government of the Russian Federation; chairman of the expert council on financial literacy at the Bank of Russia; advisor to the deputy chairman of the Central Bank of the Russian Federation in 2014-2017; under his leadership, the bank became a sanator for Investtorgbank
government (*gov*)	Minister of Agriculture of the Russian Federation since 2018; Deputy Head of the Strategic Development Department of the Strategic Planning Department of the Ministry of Regional Development of the Russian Federation in 2013-14; Assistant to the Plenipotentiary Representative of the President of the Russian Federation for the Northwestern Federal District	direct relations with the Presidential Executive Office during the implementation of the South Stream project; has been heading the direction of technology business development at ASI since 2011, has been a member of the expert council under the Government of the Russian Federation; was awarded for his services in the field of economics and finance by the Decree of the President of the Russian Federation dated October 25, 2018 608
corporate (*corp*)	member of the Board of Directors of PJSC Rostelecom, JSC Mortgage Lending Agency, VEB.RF; since 2011, has been heading the direction of technology business development at ASI; member of the boards of directors of subsidiaries of PJSC Rosseti	Chairman of the Coordination Council of the RSPP in the Central Federal District; implemented the project to create a Nano-center commissioned by A. Chubais at RUSNANO; member of the Chamber of Commerce and Industry of the Russian Federation; in 2013-2015 companies associated with the bank director signed contracts with a subsidiary of Russian Railways for 37 billion rubles
regional (*region*)	head of the Office of the Mayor and the Government of Moscow in the rank of First Deputy Mayor of Moscow; deputy of the Kirov City Duma; Minister of Finance of the Government of the Chelyabinsk Region; vice-governor of St. Petersburg	son of the mayor of Yekaterinburg; member of the public council under the Ministry of Economy of the Perm Region in 2014-17; former employee - Chairman of the Public Council under the Federal Tax Service of Russia for the Krasnodar Region; awarded the title of “honorary citizen” by the governor

As for additional indirect proofs of connections we resorted to scrolling through various pages of regional media or portals of business information, publishing photographs, chronological notes, reports revealing the structure of company owners, government procurement statistics, news about persons' participation in joint events, etc. The Integrum media archive was used too. As for the most publicly known personalities, the largest Russian businessmen and officials, search queries were formed specifically for the appropriate type of connections using marker words, e.g., "State Duma", "Central Bank", "Russian Union of Industrialists and Entrepreneurs".

The use of media materials, especially investigative ones, in encoding procedure allowed for a more thorough analysis of scandalous incidents (e.g., a raid, an arrest, or a business dispute between a bank and a company) from the interests of individual actors, including officials, perspective. This approach to detection of connections, based on fact-checking of media materials regarding corporate or public interactions, was used by Gulnaz Sharafutdinova in her study of "crony capitalism" in Russia (2010: 17, 40).

Principal Components Analysis for reduction of the number of political connections variables from 8 ones for each of the five types to 2 ones

Two principal components (PCs) were constructed for each of the five types of political connections. The PCs were derived from eight quantitative variables (by two for direct and indirect identification approaches): the natural logarithm of the total number of connected bankers (*common*), the natural logarithm of the number of bankers who have an ongoing connection (*bynow*), the proportion of bankers who got a particular type of connection after joining the bank from the total number of bankers with the *common* connection of the same type (*revolv*), the average natural logarithm of the number of years for which a connection lasts (*durat*). Table A.2 presents the loadings (weights) for these variables showing their contribution in formation of the two PCs. The proportion of the total variance of the connection variables explained by each of the PCs is given in parentheses.

According to these loadings, the greatest variance of variables for any connection types is contained in the connection duration. The first of the PCs of parliamentary, regulatory and governmental types characterizes mainly informal connections, and the second is rather the job experience. This also means that the higher variation in these connection types across banks is noticeable precisely in the informal dimension. With regard to the PCs of connections with state-owned companies and regional authorities, this interpretation is difficult, since the first PC of these types fairly evenly absorbs differences in both work experience and acquaintances. As for the second PC, for corporate connections it is mostly formed by the formal ones, while for regional connections – by informal ones.

Table A.2

Loadings of the variables forming the principal components for each of the five types of political connections

Type of political connection	parliamentary (parl)		regulatory (regul)		governmental (gov)		corporate (corp)		regional (region)	
	PC1 (0.74)	PC2 (0.16)	PC1 (0.59)	PC2 (0.32)	PC1 (0.65)	PC2 (0.19)	PC1 (0.61)	PC2 (0.26)	PC1 (0.60)	PC2 (0.24)
Formal common	0.089	0.305	0.122	0.352	0.099	0.464	0.298	0.366	0.273	-0.290
Informal common	0.293	-0.091	0.340	-0.053	0.340	0.148	0.278	-0.142	0.296	0.021
Formal “revolving doors”	0.070	0.178	0.000	0.000	0.001	0.030	0.049	0.099	0.070	-0.066
Informal “revolving doors”	0.174	-0.226	0.168	-0.044	0.120	-0.017	0.086	-0.203	0.119	0.010
Formal current status	0.036	0.092	0.035	0.041	0.051	0.201	0.235	0.266	0.127	-0.163
Informal current status	0.206	-0.076	0.213	-0.033	0.260	0.090	0.248	-0.107	0.164	0.116
Formal duration	0.264	0.868	0.229	0.897	0.151	0.795	0.441	0.654	0.597	-0.624
Informal duration	0.870	-0.219	0.862	-0.252	0.876	-0.283	0.716	-0.533	0.648	0.695