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The Politics of Bank Failures in Russia

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Abstract
We study whether bank failure probability systematically varies over the election cycle in Russia. Using monthly data for 2002-2020 and controlling for standard bank risk indicators we find that bank failure is less likely during periods preceding presidential elections. We explore whether this effect is more pronounced for banks whose failure is associated with greater political costs, such as important players in the household deposit market or important players in regional markets. We find no evidence for this latter effect. Overall, our results provide mixed evidence that political cycles matter for the occurrence of bank failures in Russia.

Keywords: Bank Failure, Election, Russia

JEL classification: G21, D72, P34

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1. Introduction

A growing literature suggests that politicians have incentives to interfere with the banking system to pursue their own interests, including their chances of reelection. For example, there is evidence that lending by state-owned banks accelerates before elections compared to private banks (Dinc, 2005; Carvalho, 2014). Regulatory interventions may also be used to affect the electoral outcome: macroprudential policies restricting access of voters to credit may be relaxed (Müller, 2019) or decisions on closing banks can be postponed ahead before elections (for emerging economies, see Brown and Dinc, 2005; for the US, see Liu and Ngo, 2014).

The experience of Russia over the past two decades provides a relevant natural setting for sharpening our insights into the interface of politics and bank failures. Two salient features of the banking sector in Russia stand out. First, the Russian banking system has witnessed a massive number of bank failures over the last two decades. These failures have taken place throughout this period, and thus are not clustered around the Global Financial Crisis. Second, there is evidence of the authorities intervening in the electoral process in Russia over the last two decades through media control (Enikolopov, Petrova and Zhuravskaya, 2011), electoral fraud (Klimek et al., 2012), and bank lending before elections (Schoors and Weill, 2020; Fungáčová et al., 2020).[1] Both of these features provide strong incentives for studying the potential influence of authorities on bank failures.

The objective of this paper is to examine the existence of political cycles in bank failures in Russia. We ask whether the probability of bank failure around major national elections differs from the probability of bank failure otherwise. Controlling for economic conditions, systematic fluctuation in default probability around major elections is taken as evidence for political cycles in bank failures. In general, there are at least two reasons for the authorities to limit the number of bank failures in election times. First, incumbent

[1] Schoors and Weill (2020) show that corporate lending supplied by Sberbank, the largest state-owned bank, was linked to the electoral performance of Vladimir Putin in the 2000 presidential election. Fungáčová et al. (2020) find that all Russian banks, state-owned and private, increased their lending ahead of presidential election from 2004 to 2018.

politicians are incentivized to avoid the political costs of bank failures. These costs arise from costs to the stakeholders of the bank (shareholders, employees, depositors), as well as costs to the taxpayer. Voters can perceive the cost of failure as a negative signal about the competency of the ruling government. Second, bank failures reduce the credit supply. This can have short-term negative effects on the economy and restrict the access of voters to credit. Career concerns may cause bank supervisory authorities to avoid taking actions that potentially harm an incumbent's election performance.

To perform our investigation, we use monthly data on individual banks from the Central Bank of Russia (CBR) for the period 2002–2020. This enables us to identify the interplay between bank failures and elections over four presidential elections (2004, 2008, 2012, 2018). We use logit and a Cox hazard models to explain the occurrence of failure at the bank level. In addition to bank fundamentals and macroeconomic controls, our model accounts for the timing of elections and the reasons bank licenses were withdrawn.

This setting provides us with two key advantages over previous studies. First, the use of monthly bank data and daily data on failures allows for a clean identification of the relation between elections and bank failures. We can precisely track the evolution of bank failures around the dates of elections. In comparison, Brown and Dinc (2005) analyze this question with yearly data, while Liu and Ngo (2014) use quarterly data. Second, unlike previous studies, our dataset on bank failures provides the information on the reasons for the bank failures. The reasons can be broadly classified as related to financial problems of the bank or illegal activities. This allows us to investigate the plausible channels linking bank failures to the timing of elections.

The paper contributes to the literature on two main fronts. First, we provide new evidence on the political interference in the banking system in emerging countries. Bank failures are a concern of major importance in these countries given their greater financial instability relative to developed countries and the key role of banks in the financing of the economy. We complement and extend the work of Brown and Dinc (2005), who perform a cross-country analysis relying on annual data on the ten largest banks in 21 emerging markets for the period 1994–2000. Our monthly data allows for detailed investigation of the influence of the electoral calendar on the occurrence of bank failures. Moreover, our

data cover practically the entire banking sector. We thus do not restrict the analysis to Russia's large banks.

Second, we contribute to the understanding of the dynamics of bank failures in Russia. The extraordinary number of bank failures has raised questions about the determinants of bank failures in Russia. Both especially weak bank fundamentals (Claeys and Schoors, 2007) and high bank competition (Fungáčová and Weill, 2013) have been identified as factors enhancing the likelihood of failure of a Russian bank. Nevertheless, the literature devoted to bank failures in Russia has been limited to the investigation of economic determinants. We extend the discussion by asking whether political factors might also play a role in this process.

The paper proceeds as follows. Section 2 discusses developments of the banking sector and the electoral process in Russia. Section 3 describes the data used and outlines our empirical approach. Section 4 reports the main results and section 5 provides additional supporting evidence. Section 6 concludes.

2. Background

2.1 Banking sector development

Commercial credit institutions emerged late in Soviet era in tandem with newly created state-owned enterprises and joint-stock companies. Between 1987 and 1992, thousands new joint-stock and cooperative banks were established, mostly as spin-offs from accounting units of state-owned enterprises or as a result of reorganization of the old monopoly Gosbank. The state retained ownership of the key Gosbank spin-offs: Sberbank and Vneshtorgbank (later VTB bank) (Hirvensalo, 1993; Berkowitz et al., 2014) and the state is still present in these banks.

When the Soviet Union ceased to exist in December 1991, the remaining assets and liabilities of the Gosbank were transferred to the CBR. It was tasked with exchange rate and monetary policy, as well as all bank supervision tasks and licensing operations. The CBR paid attention to the shaky health of many small credit institutions from the start, but it lacked qualified personnel and a legal framework for proper bank supervision. The banking inspection unit, only established in late 1993, initially had just 400 specialists

responsible for supervision of about 2,500 credit institutions throughout Russia (Hirvensalo, 1993). Russian banking supervision in the early years was discretionary almost by design.

The legal framework for banking sector regulation started to take shape in the latter half of the 1990s. Stricter minimum capital requirements were introduced in 1996 and key laws on bank insolvency and restructuring were amended and approved in 1999 (CBR, 2002). The role of banks in financing the private sector was minimal in the turbulent 1990s. Many obscure "pocket banks" behaved more like casinos than banks, often preferring speculation to lending (Claeys and Schoors, 2007). Even new private banks mainly provided the services their predecessors had in the Soviet times, i.e. they mobilized domestic savings to finance government debt (Tomson, 1997).

All this started to change after the August 1998 financial crisis, which erupted as the Russian sovereign became insolvent and defaulted on its debt. This led to a banking crisis and a subsequent spike in bank failures over the next two years. By the end of 2000, the number of credit institutions had fallen to 2,130.

Since 1999, first out of necessity and then as a conscious policy choice, the government ceased to run significant budget deficits. This allowed banks to focus on funding the private sector, both firms and households. Macroeconomic stability together with important structural reforms supported the rapid development of banking sector in the early 2000s. Various amendments in banking legislation strengthened the legal framework of bank regulation and supervision. The 2001 amendments broadened the CBR's powers to remove financially unsound credit institutions from the market. A law criminalizing money laundering came into force on 1 February 2002. In 2003, "fit and proper" standards for bank owners were introduced and the CBR acquired enhanced powers to scrutinize sources of bank capital (Berglöf and Lehmann, 2009). Russia joined Financial Action Task Force (FATF) in 2003, and during the following decade CBR worked to greatly improve its Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT) surveillance.[2] The new 2002 central bank law greatly expanded the CBR's abilities to

[2] In October 2013, the Financial Action Task Force (FATF) concluded that Russia had made significant progress in addressing the deficiencies in its AML/CTF practices, and removed Russia from FATF's regular follow-up process.

supervise all credit institutions. By 2002, the CBR's banking inspection units boasted 4,100 experts, most of them in regional branches (CBR 2002). A deposit insurance scheme was put in place in 2004. The last remaining restrictions on the capital account were removed in 2006.

The economic boom of the 2000s fostered growth of modern banking in Russia. By early 2006, Russia had 1,244 operating banks, most of them tiny and owned by a handful of wealthy individuals. Banking sector assets to GDP increased from just 40 % in 2004 to 60 % in late 2007, when the global financial crisis hit Russia. Russia's banking sector, helped by generous state support and temporary relaxation of regulatory measures, weathered the 2008 global financial crisis relatively unscathed. The sector remained fragmented, however. As a legacy of the 1990s, Russia still had over a thousand banks, but a few state-controlled universal banks dominated the market.[3]

The regulatory functions of the central bank broadened further in 2013 as the CBR assumed the powers of the former Federal Service on Financial Markets. The central bank became a super-regulator for financial markets with an explicit financial stability mandate. The new supervisory body, which enjoyed a clear mandate to weed out the weakest and most obscure financial institutions, launched a determined process of cleaning up the banking sector in 2013. Up to 2015, banking supervision was run by the regional divisions of the CBR. A push for centralization started in 2016, such that a centralized Service for Ongoing Banking Supervision and the Systemically Important Banks Supervision Department assumed the responsibility for supervision of all credit institutions in Russia in 2018. The organizational reform was part of a larger push for increasing the quality of banking supervision by eliminating regional differences in regulatory practice.

A collapse in oil prices and Western sanctions brought new challenges to the banking sector in 2014. The monetary policy framework was also dramatically overhauled in late 2014 as the central bank shifted to inflation targeting. The ruble was allowed to float freely, leading to a sizable depreciation. The 2014–2015 recession intensified the clean-up of the banking sector. The number of operating credit institutions dropped from 955 at the end of 2012 to 619 at the end of 2016. Additionally, a number of faltering top-50 banks

[3] The role of foreign banks in Russia has remained minor with combined market share at around 10 % of total lending.

were taken over by the CBR in the latter half of 2017, and many more were assigned to the Deposit Insurance Authority for rehabilitation. Despite the decreasing number of credit institutions, bank lending increased throughout our observation period.

Partly due to Soviet legacies, banks in Russia face a heavy regulatory burden. Moreover, banking supervision has tended to focus on ex post surveillance of banks fulfilling multitude of laws and regulations. In 2016, a typical year for our purposes, 713 out of a total of 975 credit institutions[4] received written notifications of deficiencies, 580 credit institutions met with regulators on potential violations, roughly 1,300 supervisory measures were imposed (e.g. fines, bans, or restrictions on some activities), and 97 bank licenses were revoked (CBR, 2016). The regulator may revoke bank license if a bank repeatedly violates regulations and if the measures taken to eliminate the violations and recover bank's financial stability are deemed insufficient. When a banking license is revoked, the CBR appoints a provisional administrator to manage the credit institution until an arbitration court decides on bankruptcy or liquidation.

2.2 Presidential elections

Russia's president has been directly elected in a single nationwide constituency since 1991. The first presidential election was held in June 1991, six months before the dissolution of the Soviet Union. Boris Yeltsin, then chair of the Supreme Soviet of the Russian Federation, won his five-year term by a landslide. The June 1996 presidential elections were the first held in the Russian Federation and President Yeltsin won a new term in what turned out to be an extremely tight competition. The new constitution adopted in 1993 cut the presidential term to four years, so the next presidential elections were scheduled for June 2000.

President Yeltsin resigned suddenly on 31 December 1999. Following Russia's election law, which stipulated new elections had to be held within three months, Vladimir Putin was elected in March 2000. President Putin easily won his second four-year term in the March 2004 elections. Russian law prevents a president from serving more than two consecutive presidential terms, so Putin was not on ballot in March 2008 elections.

[4] Total number of credit institutions includes both banks and nonbanks, as well as operating and currently non-active credit institutions that hold an operating license.

The law was amended in 2008 to increase the presidential term to six years. Putin also again became eligible to run for office in the March 2012 election, which he won handily. The most recent presidential election in Russia was held in March 2018. The next election is scheduled for March 2024.[5]

3. Data and methodology

3.1 Data

We build our dataset by merging data from several sources. The data on closed banks comes from the Karas (2020) database. For each closed bank that database provides the closure date and the reason(s) of that closure. These reasons originate from the official statements that the CBR issues after a bank is closed.

We divide closed banks into two mutually exclusive groups: failures and non-failures. Failures include banks whose license was withdrawn by the Central Bank. Non-failures include mergers and voluntary liquidations. Non-failures correspond to S-tags from Karas (2020) while failures to all other tags. In our main analysis we focus on failures.

We sub-divide bank failures into two overlapping groups. The first includes banks whose failure relates to their financial health: the CBR reports these banks to under-provision for loan losses, take too much risk, suffer losses, default on their obligations, and/or possess insufficient capital. These correspond to C-, A-, E-, and L-tags from Karas (2020). The second group includes banks whose failure relates to illegal or semi-legal activities: the CBR reports these banks to engage in dubious and fictitious transactions, tunnel assets, violate anti-money laundering regulations, and/or serve business interests of their owners or managers. These correspond to M-tags from Karas (2020). In many cases, the CBR reports multiple reasons for bank failure, often citing both illegal activities and issues related to financial health. Therefore, the group of banks that fail because of financial problems overlaps with the group of banks that fail because of their engagement in illegal activities.

[5] The elections take place in the month that the previous elections were held. For a thorough description of Russian election laws and practices, see e.g. OSCE election observation monitoring reports available at https://www.osce.org/odihr/elections/russia.

Bank failure dataset is merged with bank balance sheet and macroeconomic data. Our primary source for bank balance sheet information is the CBR. Since January 2004, the CBR has posted detailed financial statements of most Russian banks on its website. We use these statements to construct standard bank balance sheet indicators using the CBR's methodological guide (Goryunov, 2000). Our secondary source for bank balance sheet information is a private financial information agency, Mobile. The Mobile database is described in Karas and Schoors (2005). We use the Mobile data in cases where information is not available from the CBR. In particular, during the period 2002–2003 all our balance sheet data were taken from Mobile.

The macroeconomic data on industrial production, exchange rates, and interest rates are taken from the FRED database of the Federal Reserve Bank of St. Louis.

Russian presidential elections took place on 12 June 1991, 16 June 1996, 26 March 2000, 14 March 2004, 2 March 2008, 4 March 2012, and 18 March 2018. In the main analysis, we focus on the last four elections. For this period bank-level data availability is much better for failed banks compared to earlier periods. Further, relative to the turbulent 90s, this period of the Russian history enjoyed economic and political stability. To consider at least two years before and at least two years after each election, our sample period for the main analysis starts on 20 March 2002 and ends on 18 March 2020.

In the final sample, we use an unbalanced panel of almost 200,000 bank-month observations for over 1,400 banks that includes over 700 bank failures. Table 1 describes the summary statistics of the main bank-level and country-level variables.

Figure 1 shows the monthly development of bank failures around four presidential elections that took place during the period we consider. The number of bank failures tends to decrease as the presidential elections are approaching. The sharpest decrease is visible up to three months before elections. After the elections, the number of bank failures tends to increase.

3.2 Methodology

We examine how bank failure probability evolves over the election cycle by estimating the following logit model:

$$Failure_{i,t} = \alpha + \beta * Election_{i,t} + \gamma * Bank\ Controls_{i,t-1} + \eta * Macro\ Controls_t + \tau_m + \varepsilon_{i,t}$$

The dependent variable $Failure_{i,t}$ is a dummy variable that equals 1 if bank i fails (i.e. loses its license) in month t, and 0 otherwise.

Our main explanatory variable is *Election,* a dummy variable that takes a value of one for a period before presidential elections. More precisely, for each bank *i* in month *t* we calculate the time δ, in days, until the closest election. If bank *i* fails in month *t* we calculate δ as the difference between the failure date and the date of the closest election. If bank *i* does not fail in month *t*, we calculate δ as the difference between the first date of the month and the date of the closest election. We set dummy $Election_{i,t}$ equal to 1 if time-to-election δ falls in the interval [-365,-1], meaning one year. That is, $Election_{i,t}$ equals 1 for bank-months that precede an election by up to one year, and result in bank *i* either surviving in month *t*, or failing in month *t* ahead of the election. To examine how the election effect evolves over time, we experiment with alternative definitions of $Election_{i,t}$. Specifically, we try three shorter pre-election windows: [-182,-1], [-91,-1], [-30,-1], so respectively six months, three months, and one month before election.

The bank control variables included in the estimations are in line with the existing literature on the determinants of bank failures. We include the size of the bank defined as logarithm of total assets, equity ratio, the share of nonperforming loans in total loans, liquid assets to total assets, as well as a measure for bank profitability (ROA). To make sure our results are not driven by outliers, we winsorize these variables at the 1st and 99th percentiles. Bank-level controls are measured at the end of month *t-1*. In some cases, accounting data are not available for the month immediately preceding license withdrawal. As we aim to have as many bank failures included in our estimations as possible, we utilize the data from previous months as follows. If a bank fails in month *t*, but its controls from month *t-1* are not available, we use values from month *t-2*; if month *t-2* is not available, we use month *t-3*.

To control for macroeconomic fluctuations that might affect bank failures, we include the monthly change in the interbank rate (*Δ Interbank rate*), the monthly percentage change of the industrial production index (*Δ Production*), and the monthly percentage change of the RUB/USD exchange rate (*Δ Exchange rate*). Controls for seasonality include

11 monthly dummies, τ_m. $\varepsilon_{i,t}$ is the random error. The standard errors are clustered at the bank level.

4. Results

4.1 Main estimations

Table 2 reports the results of the main estimations. The key independent variable, the *Election* variable, is defined based on the number of months of the window. We consider the four different time windows (1 year, 6 months, 3 months, 1 month) before the elections in the four columns to see if the significance on elections evolves over time.

Across specifications, we consistently find that the estimated coefficient for *Election* is significantly negative. Controlling for both bank-level and macro-level variables, the probability of failure in an election period is clearly and statistically significantly smaller than in other periods. The coefficient on *Election* is of same magnitude for period of 12-month, 6-month, and 3-month prior to elections. However, the odds for failure decrease dramatically when we move from our longer time windows to the 1-month window. Our results indicate that bank failures are extremely unlikely to occur in the 1-month period before elections.

In terms of economic significance, we provide the average predicted failure probabilities at the bottom of the table. If we consider, for instance, the 1-month window, we observe that the average predicted failure probability if every observation in the data was treated as if it took place in the month before elections is 0.0011, while the average predicted failure probability if every observation in the data was treated as if it took place not in the month before elections is 0.0037. Therefore, we conclude that the average predicted failure probability in the month before elections is three times lower compared to other periods.

With the three other time windows, the average predicted failure probability in the months before elections is about two times lower compared to other periods. Thus, the influence of elections on the probability of bank failure is economically significant.

The estimated coefficients of the bank-level variables have the expected sign. Bank size has a significantly negative coefficient in all estimations, which is in line with the "too big to fail" argument, whereby a large bank has a lower probability of bank failure. The ratio of non-performing loans to total loans is significantly positive in all estimations, in accordance with the fact that greater credit risk enhances the probability of bank failure. ROA and the ratio of liquid assets to total assets are both significantly negative in all estimations, which comports with the view that higher liquidity and profitability reduce the likelihood of a failure. Finally, the ratio of equity to assets is negative and significant, thus confirming that higher capital relates to a lower probability of failure.

Turning to the macroeconomic variables, we find that change in industrial production (*Δ Production)* is significantly negative, consistent with the fact that positive macroeconomic changes reduce the occurrence of bank failure. The other macroeconomic variables are not significant.

Controlling for bank-level indicators, macroeconomic variables and seasonality, our main results suggest that bank failures are less likely in the months leading up to a presidential election. This conclusion points to the possibility of political interference in the decision-making process of bank failures. The regulator holds considerable discretion in a license revocation decision, and our results show the regulator is less likely to withdraw banking licenses in election times.

4.2 Robustness tests

We perform a series of robustness checks to confirm our main finding that bank failure is less likely in the months prior to a presidential election.

We first check the existence of electoral cycles in non-failure bank closures. These closures are initiated by the bank itself rather than the regulator, and include mergers and voluntary liquidations. We excluded non-failures from our main analysis above.

If our hypothesis of political interference in the process of bank failures is correct, we should not observe electoral cycles for non-failures since they are initiated by the bank itself, not the regulator. Conversely, if we observe electoral cycles in non-failures, it can

suggest that electoral periods are associated with exogenous elements that affect all bank closures and thus are not related to possible political influence ahead of elections.

To examine this question, we replicate the baseline regressions using non-failure bank closures as our dependent variable. There are 204 non-failure bank closures in the data. Table 3 displays the results. We find that *Election* is not significant in any of the estimated specifications. In other words, there are no electoral cycles for bank closures initiated by the bank. This accords with our interpretation that political interference takes place before elections to delay bank failures.

Second, to exclude the hypothesis that our finding is driven by any of the four electoral episodes, we redo the main estimations by dropping one election period at a time. To this end, we drop all observations for the 12 months before and the 12 months after each electoral episode. Thus, we perform four sets of estimations in which only three election periods are considered to check if the results stand. The results of these estimations are reported in Table 4.

When excluding one electoral episode at a time, we find that the *Election* variable is negative in all estimations, but the significance of the coefficient varies across windows. Nevertheless, the estimated coefficients are significant in most cases. Also, it has to be stressed that excluding one electoral episode reduces the sample size and as such contributes to the reduction of the coefficients' significance.

When excluding 2012 election or 2018 election, *Election* is significantly negative for all windows. Thus, the exclusion of 2012 or of 2018 does not change the results at all. When excluding 2004 election, *Election* is significantly negative for all windows with the exception of 3-month window. Finally, excluding the 2008 election leads to the most important changes in the results: *Election* is significantly negative for the one-year and the six-month windows, and negative, but not significant, for the two other windows. This latter finding suggests that the political incentive to reduce bank failures might have been particularly important before 2008 election[6]. It might come from the fact that this election was the only period in this study where Putin was not the candidate (Dmitry Medvedev replaced him as candidate to comply with the Russian constitution). As such, greater

[6] The elections took place in March 2008 and were not affected by the global financial crisis that hit Russia in the second half of 2008.

political interference may have been applied. Nevertheless, we still observe that the likelihood of bank failure in the twelve months preceding election is significantly lower even when excluding the 2008 election. Therefore, we conclude that our main finding that bank failures are less likely to occur before elections holds and is not driven by any of the four election episodes.

As the third robustness check, we conduct a placebo test by falsifying the timing of the elections. To this end, we assume that the elections took place in March of 2006, 2010, 2014, and 2020. The *Election* variable is redefined accordingly. If the results we find are driven by other events than the electoral episodes, we should still observe that *Election* is significantly negative.

The estimations are reported in Table 5. We find that *Election* is not significant in any of the estimations. Hence, the placebo test confirms our main finding that bank failures are less likely before elections.

Fourth, we check the robustness of our main results by using a hazard model to perform a survival analysis. We have chosen to explain the occurrence of bank failures with a logit model following a large strand of literature devoted to bank failures in Russia (Claeys and Schoors, 2007; Fungáčová and Weill, 2013) or outside Russia (Arena, 2008; DeYoung and Torna, 2013). A narrower set of studies relies on a hazard model to explain the time to default (e.g. Brown and Dinc, 2005, Liu and Ngo, 2014). Since we aim to check whether our key finding stands using an alternative estimation procedure, we adopt the Cox hazard model for our investigation following Liu and Ngo (2014). The results are reported in Table 6. We observe that *Election* is significantly negative in most estimations. It is negative, but not significant, for the 3-month window. Hence, the survival analysis corroborates our estimations based on the logit model.

Finally, we use a standard OLS regression to explain the number of bank failures at the country level. This alternative approach replaces the logit model to explain failure probability of an individual bank in the main estimations. Even if this approach does not allow taking into account the bank-level variables, it constitutes an interesting way to test the relevance of our interpretation on political interference in bank failures before elections.

The hypothesis we test is that the Russian authorities aim to reduce the number of failures in the months preceding a presidential election. We perform regressions explaining

the number of bank failures on a daily basis. The set of explanatory variables includes the *Election* dummy variable and the macroeconomic variables. The results are displayed in Table 7.

We find that *Election* is significantly negative in all estimations. Hence, the number of bank failures is lower during the months preceding the presidential elections in Russia. These estimations at the country level confirm our key conclusion observed at the bank level that the number of bank failures declines before a presidential election.

We further test the robustness of these results in a number of ways.[7] First, we use a Poisson regression instead of OLS. Second, we employ Newey-West standard errors in order to allow for possible autocorrelation and heteroskedasticity in the error; the maximum lag order of autocorrelation was set to 14. Third, we add the log of system-wide total assets and asset-weighted averages of balance sheet indicators as control variables. Fourth, we experiment with adding (up to 14) lags of the dependent variable as extra controls. In all cases, the *Election* dummy variable remains negative and mostly significant.

5. Exploring the channels

5.1 Bank failures after elections

Our investigation shows that bank failures are less frequent in the period preceding presidential elections in Russia. A corollary question concerns the developments following the elections and the occurrence of bank failures during that time.

On the one hand, the reduction of the number of bank failures before an election could lead to more bank failures after the election. Bank failures that should have taken place because of bad finances may have been delayed until after the elections, resulting in greater frequency of bank failures in the months following the election. On the other hand, the occurrence of bank failures could remain lower than in normal times in the months following the elections as the entire period surrounding the election has been influenced. Informal instructions or any influence of the authorities do not necessarily need to be limited to the time preceding an election.

[7] All these additional robustness checks are available upon request.

Thus, we examine whether the likelihood of bank failures changes after the elections. We redo the main estimations explaining the occurrence of bank failure by considering four different time windows for the impact of elections on the probability of bank failure based on the number of months after the election: one month, three months, six months, and one year.

Table 8 reports the estimations results. We find that *Election* is not significant with the exception of a significantly negative coefficient at the 10% level for the longest window of one year. Thus the analysis of bank failures in the post-election period leads to the conclusion that neither an increase, nor a decrease of the probability of bank failure is observed in the months following the election. This conclusion suggests that no "catching up" occurred in the number of bank failures after elections.

5.2 Reasons of failures

We can question whether our main findings hold for all types of bank failures. As discussed above, the authorities might have incentives to reduce the number of failures before elections to avoid the political costs of bank failures and the reduction of credit supply. However, the delayed failures of banks brought about by illegal activities can also generate political costs. To close dishonest banks cannot be interpreted as a signal as negative as closing a bank with financial issues since it can contribute to the image of authorities fighting corruption and dishonest practices. Hence, we assume authorities have greater incentive to reduce bank failures caused by financial problems. These failures also typically incur greater costs than those caused by illegal activities. In other words, our hypothesis about political interference in bank failure decisions is supported if we observe fewer bank failures caused by financial problems before presidential elections, while bank failures caused by illegal activities are less affected by election times. Our detailed data on reasons for license withdrawals provide us with the opportunity to test this hypothesis.

We re-estimate our main model by considering separately failures brought about by financial problems (Table 9) and by illegal activities (Table 10). The *Election* variable is redefined in these tables to equal one only if the failure is caused by the investigated reason, and zero otherwise. We observe that *Election* is significantly negative in all estimations

when considering failures generated by financial problems. When considering failures caused by illegal activities, the results are overall similar with a significant and negative coefficient for *Election* with three time windows. *Election* is negative but not significant for the 3-month time window.

We therefore do not obtain additional support for the political interference before presidential elections: bank failures caused both by financial troubles and by illegal activities are less probable before elections. This result is at odds with the expectation that types of bank failures associated with greater political costs would be more probable than the others.

5.3 Heterogeneity across banks

Our key finding is the electoral cycles in bank failures, supporting the view of political interference in the process of withdrawing bank licenses.

We can question whether this political interference is higher for certain types of banks where the effect of a failure can be expected to be greatest. Namely, we interpret the delayed failures of banks by the willingness of the authorities to reduce political costs.

We can then assume that authorities have greater incentive to reduce failures of some specific types of banks.

In the following discussion, we examine whether the probability of failure reduced prior to elections for certain types of banks to minimize the impact on political outcomes. We redo the main estimations by investigating the heterogeneity across banks in the electoral cycles of failures.

First, we consider the share of household deposits to total assets (*HH deposits*). A greater share of household deposits to total assets for a bank means greater political costs in terms of dissatisfaction of citizens. Therefore, we should observe that a greater reduction of the probability of failure before elections for banks with higher share of household deposits to total assets.

We re-estimate our main model by including *HH deposits* and its interaction term with *Election* in Table 11. We observe that the interaction term *Election*×*HH deposits* is not significant in any of the estimated specifications. Hence, we do not find evidence that

banks with greater share of deposits from households would have lower profitability of failure before elections.

Second, we consider the share of regional total assets (*Regional assets*). The assumption here is that banks with higher share of assets in the total assets of the region are of higher importance for the economy of the region, and consequently their failure would be associated with very high political costs. We consequently predict a lower profitability of bank failure before elections for banks with higher share of regional total assets.

We redo our estimations with the inclusion of *Regional assets* and its interaction term with *Election* in Table 12. We point out that the interaction term *Election*×*Regional assets* is not significant in any estimations. We therefore conclude to no evidence that the political interference would be particularly strong for banks with a more systemic importance at the regional level.

Third, we investigate the influence of the location. About half of Russian banks are located in Moscow. It can therefore occur that the Moscow location matters for the political interference. The high density of banks in Moscow makes a bank failure less influential in terms of economic consequences in this location. It can therefore be of particular importance for the political authorities to reduce the probability of bank failure before elections outside Moscow.

We re-estimate our main model by including a dummy for Moscow location (*Moscow*) and its interaction term with Election in Table 13 to check this hypothesis. We observe no significant coefficient for the interaction term *Election*×*Moscow*, supporting the view that there is no difference in the impact of elections on failures for banks inside and outside Moscow.

To sum up, these estimations provide no evidence that certain types of banks would be particularly concerned by the electoral cycles of bank failures. Consequently, they do not bring additional support to our key hypothesis of political interference in the process of bank failures before elections.

6. Conclusion

In this paper, we investigate the existence of political cycles in bank failures in Russia, a country characterized by a high number of bank failures during the past two decades. Since it has been shown that the authorities are prone to intervene in the electoral process in Russia, we test the hypothesis that they might aim to reduce the number of bank failures in the months preceding a presidential election.

We do not assume that authorities would directly steer the CBR decisions on license withdrawal around presidential elections. There is always a fair amount of discretion in license revocation decisions, and our results show the regulator seems to be especially reluctant to withdraw licenses with the approach of a major election. We indeed show that the probability of a bank failure is lower in the twelve months leading up to an election. The effect is economically significant with a probability of a bank failure two to three times lower in the pre-election months than at other times. This key finding is confirmed by a large set of robustness checks.

However, additional estimations do not corroborate the hypothesis of a political intervention in the decision to revoke a bank's license.

On the one hand, we test the hypothesis that different types of bank failures are not affected in the same way before elections. Since bank failures caused by financial troubles generate more political costs than those caused by illegal activities, we expect that the probability of bank failure is particularly reduced for the first ones. We do not find support for this hypothesis.

On the other hand, we test the hypothesis that different banks are not affected equally before elections. We assume that banks associated with greater political costs notably through greater share of household deposits in their balance sheet or through greater share of regional assets should be associated with a higher reduction in the probability of bank failure. We however do not find support for this hypothesis.

In a nutshell, we find mixed evidence supporting the hypothesis of political interference in the process of bank failures before elections.

The implications of our work are straightforward. From a positive perspective, it contributes to our understanding of bank failures in Russia. As failures cannot be fully

explained by weak fundamentals at the bank level or by macroeconomic cycles and changes in the bank supervision at the country level, political factors matter through electoral cycles. Relying on the detailed dataset of all Russian banks, we confirm for Russia what Brown and Dinc (2005) found for large banks from emerging countries in the 1990s and Liu and Ngo (2014) observed for US banks. From a normative perspective, it shows that bank failures might be delayed for non-economic reasons, even if they come with economic consequences. The policy implication here is that the process of revoking a bank license in Russia should be more independent and less susceptible to political incentives.

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Table 1. Descriptive statistics

Variables	Obs.	Mean	Standard deviation	Min	Max
Bank-level					
Bank failure	192,528	0.0037	0.060	0	1
Size	192,528	10.4	1.91	3.63	16.5
Capital ratio	192,528	0.23	0.17	-0.042	0.92
NPL ratio	192,528	0.041	0.090	0	0.86
ROA	192,528	0.0012	0.0074	-0.039	0.045
Liquid assets	192,528	0.21	0.17	0.000097	0.96
Country-level					
Δ Production	192,528	0.30	1.33	-10.4	4.55
Δ Exchange rate	192,528	0.38	3.67	-12.2	20.8
Δ Interbank rate	192,528	-0.036	1.52	-7.03	7.49

Table 2. Main estimations

Logit estimations are performed. The dependent variable bank failure is a dummy variable that equals one if the bank's license has been revoked, and zero otherwise. Definitions of variables are provided in the Appendix. E-failures reports the number of failures during the periods in which Election equals 1. Robust standard errors are in parentheses below estimated coefficients. *, **, *** denote an estimate significantly different from 0 at the 10%, 5% and 1% level, respectively.

	(1) 1 year before	(2) 6 months before	(3) 3 months before	(4) 1 month before
Election	-0.51***	-0.52***	-0.50**	-1.21**
	(0.11)	(0.16)	(0.25)	(0.48)
Δ Production	-0.068***	-0.070***	-0.074***	-0.077***
	(0.021)	(0.021)	(0.022)	(0.021)
Δ Exchange rate	0.013	0.015	0.017	0.019
	(0.012)	(0.012)	(0.012)	(0.012)
Δ Interbank rate	-0.0095	-0.018	-0.010	-0.0083
	(0.027)	(0.027)	(0.027)	(0.027)
Size	-0.25***	-0.24***	-0.24***	-0.24***
	(0.026)	(0.026)	(0.026)	(0.026)
Capital ratio	-1.66***	-1.64***	-1.64***	-1.64***
	(0.33)	(0.32)	(0.32)	(0.32)
NPL ratio	1.87***	1.86***	1.86***	1.85***
	(0.26)	(0.26)	(0.26)	(0.26)
ROA	-81.7***	-82.0***	-82.2***	-82.2***
	(4.26)	(4.26)	(4.25)	(4.25)
Liquid assets	-2.39***	-2.37***	-2.37***	-2.36***
	(0.46)	(0.46)	(0.46)	(0.45)
Observations	192,528	192,528	192,528	192,528
# Failures	705	705	705	705
# E-Failures	102	51	21	5
# Banks	1417	1417	1417	1417
Pseudo R2	0.11	0.11	0.11	0.11
AUR	0.72	0.71	0.71	0.71
Pr(Fail): Elect=0	0.0040	0.0038	0.0037	0.0037
Pr(Fail): Elect=1	0.0024	0.0023	0.0023	0.0011

Table 3. Explaining bank closures decided by the bank

Logit estimations are performed. The dependent variable closure decided by the bank, a dummy variable that equals one if the bank decided to close, and zero otherwise. Definitions of variables are provided in the Appendix. Robust standard errors are in parentheses below estimated coefficients. *, **, *** denote an estimate significantly different from 0 at the 10%, 5% or 1% level, respectively.

	(1) 1 year before	(2) 6 months before	(3) 3 months before	(4) 1 month before
Election	0.14	0.16	0.17	-0.71
	(0.17)	(0.25)	(0.41)	(0.78)
Δ Production	0.091	0.091	0.091	0.088
	(0.064)	(0.064)	(0.064)	(0.063)
Δ Exchange rate	0.030*	0.029*	0.029*	0.027
	(0.017)	(0.017)	(0.017)	(0.017)
Δ Interbank rate	-0.0017	0.0022	-0.00054	0.0021
	(0.042)	(0.043)	(0.043)	(0.042)
Size	0.32***	0.32***	0.32***	0.32***
	(0.042)	(0.042)	(0.042)	(0.042)
Capital ratio	3.09***	3.09***	3.09***	3.09***
	(0.43)	(0.43)	(0.43)	(0.43)
NPL ratio	3.10***	3.10***	3.10***	3.10***
	(0.32)	(0.32)	(0.32)	(0.32)
ROA	-32.5***	-32.4***	-32.4***	-32.3***
	(9.23)	(9.21)	(9.20)	(9.20)
Liquid assets	0.74*	0.74*	0.74*	0.74*
	(0.44)	(0.44)	(0.44)	(0.44)
Observations	192,398	192,398	192,398	192,398
# Failures	204	204	204	204
# E-Failures	50	25	10	2
# Banks	1417	1417	1417	1417
Pseudo R2	0.061	0.060	0.060	0.061
AUR	0.73	0.73	0.74	0.74
Pr(Fail): Elect=0	0.0010	0.0010	0.0011	0.0011
Pr(Fail): Elect=1	0.0012	0.0012	0.0012	0.00053

Table 4. Excluding one election episode at a time

Logit estimations are performed. The dependent variable is bank failure, a dummy variable that equals one if the bank's license was revoked, and zero otherwise. Definitions of variables are provided in the Appendix. Robust standard errors are in parentheses below estimated coefficients. *, **, *** denote an estimate significantly different from 0 at the 10%, 5% or 1% level, respectively.

	(1) 1 year before	(2) 6 months before	(3) 3 months before	(4) 1 month before
		Excluding 2004		
Election	-0.25**	-0.28*	-0.23	-0.96**
	(0.12)	(0.17)	(0.27)	(0.48)
		Excluding 2008		
Election	-0.53***	-0.50***	-0.30	-0.68
	(0.12)	(0.17)	(0.26)	(0.51)
		Excluding 2012		
Election	-0.50***	-0.54***	-0.54**	-1.62***
	(0.12)	(0.17)	(0.27)	(0.59)
		Excluding 2018		
Election	-0.88***	-0.81***	-1.12***	-1.86**
	(0.14)	(0.20)	(0.36)	(0.73)

Table 5. Placebo elections defined for 2006, 2010, 2014

Logit estimations are performed. The dependent variable is a dummy variable, bank failure that equals one if the bank's license was revoked, and zero otherwise. Definitions of variables are provided in the Appendix. Robust standard errors are in parentheses below estimated coefficients. *, **, *** denote an estimate significantly different from 0 at the 10%, 5% or 1% level, respectively.

	(1) 1 year before	(2) 6 months before	(3) 3 months before	(4) 1 month before
Election	-0.14	-0.04	0.21	-0.27
	(0.099)	(0.14)	(0.21)	(0.37)
Δ Production	-0.072***	-0.074***	-0.075***	-0.074***
	(0.022)	(0.022)	(0.022)	(0.022)
Δ Exchange rate	0.019	0.019	0.019	0.020*
	(0.012)	(0.012)	(0.012)	(0.012)
Δ Interbank rate	-0.015	-0.013	-0.015	-0.012
	(0.027)	(0.027)	(0.028)	(0.027)
Size	-0.24***	-0.24***	-0.24***	-0.24***
	(0.026)	(0.026)	(0.026)	(0.026)
Capital ratio	-1.62***	-1.63***	-1.64***	-1.63***
	(0.32)	(0.32)	(0.32)	(0.32)
NPL ratio	1.86***	1.86***	1.86***	1.86***
	(0.26)	(0.26)	(0.26)	(0.26)
ROA	-82.3***	-82.3***	-82.3***	-82.3***
	(4.25)	(4.25)	(4.26)	(4.25)
Liquid assets	-2.35***	-2.36***	-2.37***	-2.36***
	(0.46)	(0.46)	(0.46)	(0.46)
Observations	192,528	192,528	192,528	192,528
# Failures	705	705	705	705
# E-Failures	127	72	35	11
# Banks	1417	1417	1417	1417
Pseudo R2	0.11	0.11	0.11	0.11
AUR	0.71	0.71	0.71	0.71
Pr(Fail): Elect=0	0.0038	0.0037	0.0036	0.0037
Pr(Fail): Elect=1	0.0033	0.0035	0.0045	0.0028

Table 6. Cox hazard model

A Cox hazard model is performed. The dependent variable is bank failure, a dummy variable that equals one if the bank's license has been revoked, and zero otherwise. Definitions of variables are provided in the Appendix. Robust standard errors are in parentheses below the estimated coefficients. *, **, *** denote an estimate significantly different from 0 at the 10%, 5% and 1% level, respectively.

	(1) 1 year before	(2) 6 months before	(3) 3 months before	(4) 1 month before
Election	-0.43***	-0.46***	-0.37	-1.01**
	(0.12)	(0.17)	(0.25)	(0.49)
Δ Production	-0.067***	-0.068***	-0.071***	-0.074***
	(0.025)	(0.025)	(0.026)	(0.026)
Δ Exchange rate	-0.0018	-0.00078	0.00060	0.0021
	(0.011)	(0.011)	(0.011)	(0.011)
Δ Interbank rate	-0.015	-0.022	-0.015	-0.014
	(0.031)	(0.031)	(0.032)	(0.032)
Size	-0.31***	-0.31***	-0.31***	-0.31***
	(0.030)	(0.029)	(0.029)	(0.029)
Capital ratio	-1.65***	-1.63***	-1.63***	-1.62***
	(0.34)	(0.34)	(0.34)	(0.34)
NPL ratio	1.50***	1.49***	1.49***	1.49***
	(0.26)	(0.26)	(0.26)	(0.26)
ROA	-77.5***	-77.7***	-77.9***	-77.8***
	(4.13)	(4.12)	(4.12)	(4.12)
Liquid assets	-1.96***	-1.94***	-1.93***	-1.93***
	(0.46)	(0.45)	(0.45)	(0.45)
Observations	192,528	192,528	192,528	192,528
# Failures	705	705	705	705
# E-Failures	102	51	21	5
# Banks	1417	1417	1417	1417

Table 7. Explaining the number of failures

OLS estimations are performed. The dependent variable is the number of bank failures. Definitions of variables are provided in the Appendix. Robust standard errors are in parentheses below estimated coefficients. *, **, *** denote an estimate significantly different from 0 at the 10%, 5% or 1% level, respectively.

	(1) 1 year before	(2) 6 months before	(3) 3 months before	(4) 1 month before
Election	-0.041***	-0.046**	-0.056**	-0.076***
	(0.0090)	(0.016)	(0.022)	(0.0085)
Δ Production	-0.0073*	-0.0075*	-0.0077*	-0.0086*
	(0.0037)	(0.0036)	(0.0037)	(0.0039)
Δ Exchange rate	0.0017	0.0018	0.0018	0.0020
	(0.0022)	(0.0022)	(0.0023)	(0.0022)
Δ Interbank rate	-0.0027	-0.0032	-0.0031	-0.0023
	(0.0044)	(0.0043)	(0.0044)	(0.0045)
Observations	6,573	6,573	6,573	6,573
R-squared	0.004	0.004	0.003	0.003
# Failures	803	803	803	803
# E-Failures	129	62	23	5

Table 8. Bank failures after elections

Logit estimations are performed. The dependent variable is bank failure, a dummy variable that is equal to one if the bank's license was revoked, and zero otherwise. Definitions of variables are provided in the Appendix. Robust standard errors are in parentheses below estimated coefficients. *, **, *** denote an estimate significantly different from 0 at the 10%, 5% or 1% level, respectively.

	(1) 1 month after	(2) 3 months after	(3) 6 months after	(4) 1 year after
Election	-0.49	-0.026	-0.20	-0.18*
	(0.39)	(0.21)	(0.14)	(0.10)
Δ Production	-0.073***	-0.074***	-0.075***	-0.086***
	(0.022)	(0.022)	(0.022)	(0.024)
Δ Exchange rate	0.020*	0.020	0.020*	0.021*
	(0.012)	(0.012)	(0.012)	(0.012)
Δ Interbank rate	-0.010	-0.013	-0.012	-0.012
	(0.028)	(0.027)	(0.027)	(0.029)
Size	-0.24***	-0.24***	-0.24***	-0.24***
	(0.026)	(0.026)	(0.025)	(0.025)
Capital ratio	-1.64***	-1.63***	-1.63***	-1.63***
	(0.32)	(0.32)	(0.32)	(0.32)
NPL ratio	1.88***	1.86***	1.86***	1.86***
	(0.26)	(0.26)	(0.26)	(0.26)
ROA	-82.3***	-82.3***	-82.3***	-82.2***
	(4.25)	(4.26)	(4.26)	(4.25)
Liquid assets	-2.36***	-2.36***	-2.37***	-2.35***
	(0.46)	(0.46)	(0.46)	(0.45)
Observations	192,528	192,528	192,528	192,528
# Failures	705	705	705	705
# E-Failures	10	33	63	140
# Banks	1417	1417	1417	1417
Pseudo R2	0.11	0.11	0.11	0.11
AUR	0.71	0.71	0.71	0.71
Pr(Fail): Elect=0	0.0037	0.0037	0.0037	0.0038
Pr(Fail): Elect=1	0.0023	0.0036	0.0031	0.0032

Table 9. Explaining Failures Caused by Financial Health

Logit estimations are performed. The dependent variable is bank failure, a dummy variable that equals one if the bank's license was revoked for reasons associated with financial health, and zero otherwise. Definitions of variables are provided in the Appendix. Robust standard errors are in parentheses below estimated coefficients. *, **, *** denote an estimate significantly different from 0 at the 10%, 5% and 1% level, respectively.

	(1) 1 year before	(2) 6 months before	(3) 3 months before	(4) 1 month before
Election	-0.62***	-0.71***	-0.58**	-0.90*
	(0.13)	(0.18)	(0.29)	(0.49)
Δ Production	-0.082***	-0.084***	-0.090***	-0.092***
	(0.025)	(0.025)	(0.025)	(0.025)
Δ Exchange rate	0.0064	0.0077	0.010	0.013
	(0.013)	(0.013)	(0.013)	(0.013)
Δ Interbank rate	-0.034	-0.044	-0.034	-0.034
	(0.031)	(0.031)	(0.031)	(0.031)
Size	-0.26***	-0.26***	-0.26***	-0.26***
	(0.029)	(0.029)	(0.029)	(0.029)
Capital ratio	-2.88***	-2.86***	-2.86***	-2.86***
	(0.41)	(0.41)	(0.41)	(0.41)
NPL ratio	1.73***	1.71***	1.71***	1.70***
	(0.31)	(0.31)	(0.30)	(0.30)
ROA	-88.5***	-88.8***	-89.1***	-89.1***
	(4.43)	(4.43)	(4.42)	(4.41)
Liquid assets	-4.50***	-4.48***	-4.47***	-4.46***
	(0.72)	(0.72)	(0.71)	(0.71)
Observations	192,488	192,488	192,488	192,488
# Failures	562	562	562	562
# E-Failures	74	35	15	5
# Banks	1417	1417	1417	1417
Pseudo R2	0.15	0.14	0.14	0.14
AUR	0.76	0.75	0.75	0.75
Pr(Fail): Elect=0	0.0032	0.0031	0.0030	0.0030
Pr(Fail): Elect=1	0.0018	0.0016	0.0017	0.0012

Table 10. Explaining Failures Caused by Illegal Activities

Logit estimations are performed. The dependent variable is bank failure, a dummy variable that equals one if the bank's license was revoked for reasons associated with illegal activities, and zero otherwise. Definitions of variables are provided in the Appendix. Robust standard errors are in parentheses below estimated coefficients. *, **, *** denote an estimate significantly different from 0 at the 10%, 5% or 1% level, respectively.

	(1) 1 year before	(2) 6 months before	(3) 3 months before	(4) 1 month before
Election	-0.32**	-0.40*	-0.25	-1.18*
	(0.14)	(0.21)	(0.31)	(0.61)
Δ Production	0.0030	0.0027	0.00017	-0.0037
	(0.025)	(0.025)	(0.025)	(0.025)
Δ Exchange rate	0.018	0.019	0.021	0.021
	(0.016)	(0.016)	(0.016)	(0.016)
Δ Interbank rate	0.020	0.013	0.019	0.021
	(0.026)	(0.026)	(0.026)	(0.026)
Size	-0.15***	-0.15***	-0.15***	-0.15***
	(0.031)	(0.031)	(0.031)	(0.031)
Capital ratio	-0.13	-0.13	-0.12	-0.13
	(0.39)	(0.39)	(0.39)	(0.39)
NPL ratio	1.23***	1.23***	1.23***	1.23***
	(0.36)	(0.36)	(0.36)	(0.36)
ROA	-67.2***	-67.4***	-67.5***	-67.5***
	(7.22)	(7.21)	(7.21)	(7.21)
Liquid assets	-0.29	-0.29	-0.28	-0.28
	(0.42)	(0.42)	(0.42)	(0.42)
Observations	192,446	192,446	192,446	192,446
# Failures	364	364	364	364
# E-Failures	63	29	14	3
# Banks	1417	1417	1417	1417
Pseudo R2	0.052	0.051	0.051	0.052
AUR	0.67	0.67	0.67	0.67
Pr(Fail): Elect=0	0.0020	0.0020	0.0019	0.0019
Pr(Fail): Elect=1	0.0015	0.0013	0.0015	0.00059

Table 11. Heterogeneity across banks: the influence of deposit share

Logit estimations are performed. The dependent variable is bank failure, a dummy variable that equals one if the bank's license was revoked for reasons associated with illegal activities, and zero otherwise. Definitions of variables are provided in the Appendix. Robust standard errors are in parentheses below estimated coefficients. *, **, *** denote an estimate significantly different from 0 at the 10%, 5% or 1% level, respectively.

	(1) 1 year before	(2) 6 months before	(3) 3 months before	(4) 1 month before
Election	-0.32**	-0.40*	-0.25	-1.18*
	(0.14)	(0.21)	(0.31)	(0.61)
HH deposits	0.74***	0.77***	0.78***	0.79***
	(0.083)	(0.080)	(0.078)	(0.077)
Election×HH deposits	0.31	0.24	0.042	-0.98
	(0.23)	(0.31)	(0.46)	(0.92)
Δ Production	-0.067***	-0.069***	-0.074***	-0.076***
	(0.021)	(0.021)	(0.022)	(0.021)
Δ Exchange rate	0.012	0.014	0.016	0.018
	(0.012)	(0.012)	(0.012)	(0.012)
Δ Interbank rate	-0.0078	-0.017	-0.0084	-0.0067
	(0.027)	(0.027)	(0.027)	(0.027)
Size	-0.33***	-0.33***	-0.33***	-0.33***
	(0.028)	(0.028)	(0.028)	(0.028)
Capital ratio	-2.26***	-2.24***	-2.23***	-2.23***
	(0.35)	(0.35)	(0.35)	(0.35)
NPL ratio	1.78***	1.78***	1.78***	1.77***
	(0.27)	(0.27)	(0.27)	(0.27)
ROA	-79.1***	-79.4***	-79.6***	-79.6***
	(4.30)	(4.30)	(4.29)	(4.29)
Liquid assets	-2.79***	-2.77***	-2.76***	-2.75***
	(0.47)	(0.47)	(0.47)	(0.47)
Observations	192,528	192,528	192,528	192,528
# Failures	705	705	705	705
# E-Failures	102	51	21	5
# Banks	1417	1417	1417	1417
Pseudo R2	0.12	0.12	0.12	0.12
AUR	0.74	0.73	0.73	0.73
Pr(Fail): Elect=0	0.0040	0.0038	0.0037	0.0037
Pr(Fail): Elect=1	0.0024	0.0023	0.0023	0.0011

Table 12. Heterogeneity across banks: the influence of share of regional total assets

Logit estimations are performed. The dependent variable is bank failure, a dummy variable that equals one if the bank's license was revoked for reasons associated with illegal activities, and zero otherwise. Definitions of variables are provided in the Appendix. Robust standard errors are in parentheses below estimated coefficients. *, **, *** denote an estimate significantly different from 0 at the 10%, 5% or 1% level, respectively.

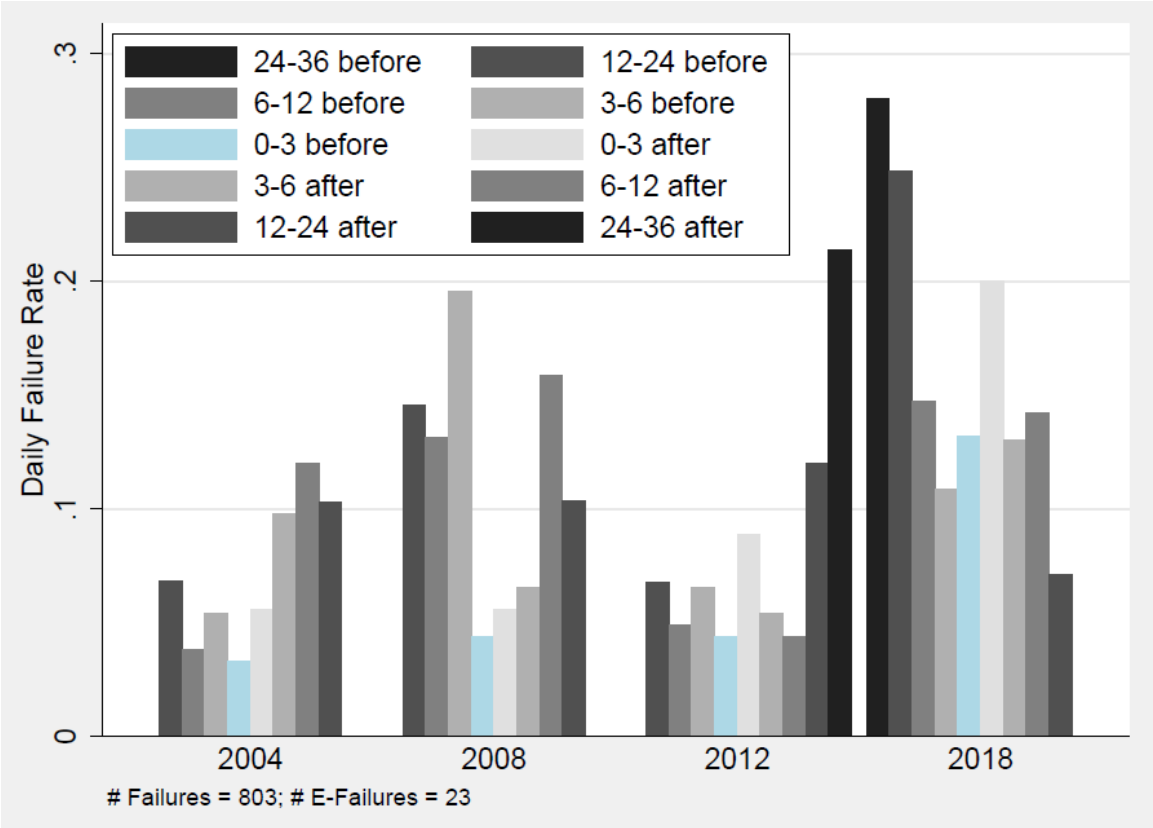
	(1) 1 year before	(2) 6 months before	(3) 3 months before	(4) 1 month before
Election	-0.45***	-0.45***	-0.49*	-1.23**
	(0.12)	(0.17)	(0.26)	(0.49)
Regional assets	-0.84***	-0.90***	-0.96***	-0.97***
	(0.31)	(0.30)	(0.31)	(0.30)
Election×Regional assets	-1.60	-1.74	-0.25	0.28
	(1.30)	(1.80)	(1.83)	(1.63)
Δ Production	-0.067***	-0.069***	-0.074***	-0.076***
	(0.021)	(0.021)	(0.021)	(0.021)
Δ Exchange rate	0.013	0.015	0.017	0.019
	(0.012)	(0.012)	(0.012)	(0.012)
Δ Interbank rate	-0.0097	-0.018	-0.010	-0.0086
	(0.027)	(0.027)	(0.027)	(0.027)
Size	-0.24***	-0.24***	-0.24***	-0.24***
	(0.025)	(0.025)	(0.025)	(0.025)
Capital ratio	-1.75***	-1.73***	-1.73***	-1.73***
	(0.33)	(0.33)	(0.33)	(0.33)
NPL ratio	1.86***	1.86***	1.86***	1.85***
	(0.26)	(0.26)	(0.26)	(0.26)
ROA	-81.2***	-81.6***	-81.8***	-81.7***
	(4.27)	(4.26)	(4.26)	(4.26)
Liquid assets	-2.44***	-2.43***	-2.42***	-2.41***
	(0.46)	(0.46)	(0.46)	(0.45)
Observations	192,528	192,528	192,528	192,528
# Failures	705	705	705	705
# E-Failures	102	51	21	5
# Banks	1417	1417	1417	1417
Pseudo R2	0.11	0.11	0.11	0.11
AUR	0.72	0.71	0.71	0.71
Pr(Fail): Elect=0	0.0040	0.0038	0.0037	0.0037
Pr(Fail): Elect=1	0.0024	0.0023	0.0023	0.0011

Table 13. Heterogeneity across banks: the influence of Moscow location

Logit estimations are performed. The dependent variable is bank failure, a dummy variable that equals one if the bank's license was revoked for reasons associated with illegal activities, and zero otherwise. Definitions of variables are provided in the Appendix. Robust standard errors are in parentheses below estimated coefficients. *, **, *** denote an estimate significantly different from 0 at the 10%, 5% or 1% level, respectively.

	(1) 1 year before	(2) 6 months before	(3) 3 months before	(4) 1 month before
Election	-0.72***	-0.68***	-0.53	-0.72
	(0.18)	(0.25)	(0.38)	(0.60)
Moscow	0.74***	0.77***	0.78***	0.79***
	(0.083)	(0.080)	(0.078)	(0.077)
Election×Moscow	0.31	0.24	0.042	-0.98
	(0.23)	(0.31)	(0.46)	(0.92)
Δ Production	-0.067***	-0.069***	-0.074***	-0.076***
	(0.021)	(0.021)	(0.022)	(0.021)
Δ Exchange rate	0.012	0.014	0.016	0.018
	(0.012)	(0.012)	(0.012)	(0.012)
Δ Interbank rate	-0.0078	-0.017	-0.0084	-0.0067
	(0.027)	(0.027)	(0.027)	(0.027)
Size	-0.33***	-0.33***	-0.33***	-0.33***
	(0.028)	(0.028)	(0.028)	(0.028)
Capital ratio	-2.26***	-2.24***	-2.23***	-2.23***
	(0.35)	(0.35)	(0.35)	(0.35)
NPL ratio	1.78***	1.78***	1.78***	1.77***
	(0.27)	(0.27)	(0.27)	(0.27)
ROA	-79.1***	-79.4***	-79.6***	-79.6***
	(4.30)	(4.30)	(4.29)	(4.29)
Liquid assets	-2.79***	-2.77***	-2.76***	-2.75***
	(0.47)	(0.47)	(0.47)	(0.47)
Observations	192,528	192,528	192,528	192,528
# Failures	705	705	705	705
# E-Failures	102	51	21	5
# Banks	1417	1417	1417	1417
Pseudo R2	0.12	0.12	0.12	0.12
AUR	0.74	0.73	0.73	0.73
Pr(Fail): Elect=0	0.0040	0.0038	0.0037	0.0037
Pr(Fail): Elect=1	0.0024	0.0023	0.0023	0.0011

Figure 1. Failures over monthly intervals around elections



Appendix

Variable	Definition
Bank failure	Dummy variable that equals one if the bank's license has been withdrawn, and zero otherwise. Source: Karas (2020).
Election	Dummy variable that equals one if the time to election falls within the interval announced at the top of the column. Source: own computation.
Δ Production	Monthly percent change in the industrial production index. Source: Federal Reserve Bank of St. Louis.
Δ Exchange rate	Monthly percent change in the Russian ruble-US dollar exchange rate. Source: Federal Reserve Bank of St. Louis.
Δ Interbank rate	Monthly change in the interbank rate. Source: Federal Reserve Bank of St. Louis.
Size	Log of total assets in thousand rubles. Sources: CBR and Mobile.
Capital ratio	Equity capital to total assets. Sources: CBR and Mobile.
NPL ratio	Non-performing loans to total loans. Sources: CBR and Mobile.
ROA	Return on assets. Sources: CBR and Mobile.
Liquid assets	Liquid assets to total assets. Sources: CBR and Mobile.
Moscow	Dummy variable that equals one if bank's headquarter is located in Moscow. Source: CBR.
Regional assets	Bank assets to total banking sector assets in a region; Sources: CBR and Mobile.
HH deposits	The ratio of household deposits to total assets. Source: CBR and Mobile.

Disclosure statement

The authors report there are no competing interests to declare.