NATIONAL RESEARCH UNIVERSITY
HIGHER SCHOOL OF ECONOMICS

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BASIC RESEARCH PROGRAM

WORKING PAPERS

SERIES: FINANCIAL ECONOMICS
WP BRP 58/FE/2016

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DEPOSITOR DISCIPLINE IN RUSSIAN REGIONS: FLIGHT TO FAMILIARITY OR TRUST IN LOCAL AUTHORITIES?[4,5]

We analyse whether depositor familiarity with a bank affects depositor behaviour during a financial crisis. We measure familiarity by looking for regional or local cues in the bank's name. We measure depositor behaviour by the their sensitivity to observable bank risk (market discipline). Using 2001–2010 bank-level and region-level data for Russia, we find that depositors of familiar banks become less sensitive to bank risk after a financial crisis relative to depositors of unfamiliar banks. To check that the results are not driven by any implicit support of banks with regional cues in their names by regional governments, but indeed by familiarity bias, we interact the variables of interest with measures of trust in local governments and regional affinity. We find that the flight to familiarity effect is strongly present in regions with strong regional affinity, while the effect is rejected in regions with more trust in regional and local governments. This indicates our results are driven by familiarity and not by any implicit protection from a trusted regional or local government.

Keywords: Market discipline, Bank, Personal deposit, Region, Russia, Flight to familiarity, Trust, Implicit guaranty, Regional authorities.

JEL: G21, G01, P2

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[4] We are grateful to John Bonin, Laurent Weill, Laura Solanko, Lucy Chernykh and all the participants of the 5th CInSt Banking workshop (Moscow), BOFIT Research Seminar (Helsinki), IFABS 2016 Conference (Barcelona), SIOE 2016 Conference (Paris) for their valuable comments.

[5] The paper was prepared within the framework of the Basic Research Program at the National Research University Higher School of Economics (HSE) and supported within the framework of a subsidy granted to the HSE by the Government of the Russian Federation for the implementation of the Global Competitiveness Program. The financial support from the Government of the Russian Federation within the framework of the implementation of the 5-100 Program Roadmap of the National Research University Higher School of Economics is acknowledged.

1. Introduction

Consumer preference for locally produced and familiar goods has recently been shown for many products and services, ranging from food (Carroll et al., 2013, 2015) to equity investments in pension plans (Brown, Pollet, and Weisbenner, 2015). The familiarity hypothesis was first introduced by Huberman (2001). He reports that shareholders of the Regional Bell Operating Company (RBOC) tend to live in the area it serves and that RBOC's customers tend to hold its shares as opposed to other RBOC equity. He explains this finding by suggesting that agents naturally feel more favourable and charitable toward what they are comfortable or familiar with, but he finds it hard to disentangle familiarity from information asymmetries.

Ackert et al. (2005) analyse whether information asymmetries or familiarity underlie investor predisposition to invest close to home (the home bias). In a series of experiments in the US and Canada they find that just providing information about a firm's home base, holding other information asymmetries constant, is not sufficient to change investment behaviour. Agents are not more inclined to invest in a company simply because it is located closer to home. Rather, participants need to know a firm's name and home base to be more inclined to invest. Participants, it turns out, have a higher perceived familiarity with those firms whose name and home base they know. Familiarity appears to be a key determinant of investment behaviour in the explanation of home bias. Baltzer, Stolper and Walter (2011), study the effect of geographical proximity on individual investors' portfolio investment and find strong and consistent overinvestment in geographically close companies. Their results also explicitly reject the hypothesis of an information home-field advantage of local over non-local investors and find instead that household preference for local equity is familiarity-driven. Bailey, Kumar and Ng (2012) study a host of behavioural biases of mutual fund investors and find that only the familiarity bias is positively correlated with stock portfolio performance, suggesting that the familiarity bias is one of the few biases, if not the only one, that is not necessarily detrimental. Boyle et al. (2011) theoretically predict and empirically support a flight to local familiarity especially during financial crises among individual investors. The effect of familiarity on investment behaviour may therefore depend on the broader environment.

We test the familiarity bias and the hypothesis of the flight to familiarity in a new setting, namely, individual depositor behaviour. If familiarity is so important to investment behaviour, we should also expect to observe it in depositor behaviour. Depositing money with a bank is a form of investor behaviour, where individuals can invest their funds in only one or at most a few banks and information about the banks is even more asymmetric than about firms in general. The

challenge is how to assess the familiarity bias in a banking context, where the very large majority of depositors entrust their money to a close-by bank and where most local banks are well-established names, rendering the classic measures of familiarity, closeness and name recognition, useless in a banking context. We define familiarity in a new and innovative way, based on comfortable and familiar cues in the bank's name.

Given depositor inclination to invest in only one or a few banks, we also need another way to measure differences in investment behaviour. We follow Hunter and Walker (1996), who test the hypothesis that white loan officers, because of a lack of familiarity with minority applicants, will rely more heavily on characteristics that can be observed at low cost (e.g., objective loan application measures) in evaluating the creditworthiness of minority applicants relative to white applicants. They indeed find that marginal black and Hispanic applicants are held to higher quantitative standards on objective factors like credit history and debt obligation than similar marginal white applicants. In other words bank officers exert more discipline on unfamiliar applicants.

We transfer this approach to the context of bank depositors, by verifying whether depositors indeed exert more discipline on unfamiliar banks and especially during a financial crisis. This ties in with the literature on market discipline in banking and more specifically depositor discipline. Market discipline requires that depositors both have access to information on bank risk and anticipate bearing a cost in the event of bank insolvency. Investigating partially uninsured large deposits in the US, Park and Peristiani (1998) demonstrated a negative relationship between the thrifts' predicted probability of failure and the subsequent growth of large uninsured deposits. They also demonstrate that the predicted probability of failure has an adverse effect on the growth and pricing of insured deposits, although to a lesser extent than on larger partially uninsured deposits. Other studies established empirical relations between the costs of funds for US banks and lagged measures of depositor risk like capital-assets ratios, the variability and the magnitude of return on assets, loan quality exposure to junk bonds (Brewer and Mondschean, 1994; Hannan and Hanweck, 1988; Park and Peristiani, 1998).

We investigate the familiarity bias in depositor behaviour by inspecting Russian regional deposit markets. Although the Russian banking market has an integrated set of regulation, supervision, taxation, deposit insurance and central bank policy, and many common risks, such as exchange rate volatility or interbank market instability, Russia's retail banking markets are nevertheless strongly regionally segmented with the retail deposit market the most regionally segmented of all. If we look beyond Moscow, the remaining banking competition is mostly

regional, rather than federal. We can exploit this strong regional segmentation of Russia's retail deposit markets, because it entails a strong level of familiarity of household individuals with banks that are visibly related to the locality or the region, with all other relevant factors set constant. In addition, Russia provides a number of natural experiments in the form of deposit insurance and financial crises that elucidate the identification of the hypothesized flight to familiarity effect.

Market discipline by household depositors is studied in two ways that may and should be combined. The study of *price-based* discipline links a bank's deposit interest rates and its riskiness and the study of *quantity-based* discipline shows that less risky banks attract more deposits, resulting in higher deposit growth rates and a higher market share. In addition to evidence from developed markets, there is strong empirical evidence of the existence of market discipline in the retail deposit markets of developing and transition economies, including Russia. Semenova (2007) and Karas, Pyle, and Schoors (2010, 2013) show for example that household depositors in Russia exert quantity-based discipline and, weaker, price-based discipline on their banks. Peresetsky (2008) provides additional support for price-based discipline by Russian household depositors.

Market discipline, though crucial for the efficient distribution of funds in the deposit market, is fragile and can be easily undermined, as household depositors suffer from high monitoring costs and are usually unsophisticated and sensitive to the non-risk-related information available to them. A financial crisis may reduce market discipline (Berger and Turk-Ariss, 2015; Cubillas, Fonseca, and González, 2012) because of crisis-related government intervention. The depositors may stop monitoring the reliability of their own banks and follow the information signals related to the macroeconomic situation, other depositor behaviour or even rumours (Hasan et al. 2013). Alternatively, in the absence of government bailouts of individual banks, the crisis may also function as a wake-up call for household depositors, as shown by Karas, Pyle and Schoors (2010) for the Russian default in 1998. Another factor undermining market discipline is the set of explicit guarantees provided by deposit insurance schemes. Peresetsky (2008) and Karas et al. (2013) show that the introduction of deposit insurance in 2004–2005 substantially reduced the sensitivity of household depositors to bank risk, as most depositors were fully protected by the insurance. This was reinforced by later increases in the coverage limit. Currently the coverage of deposit insurance is limited to 1.4 million rubles (appox. €20,000 as at November 2015).

In addition to explicit guarantees there may be implicit guarantees that erode market discipline. In the Russian context there are two groups of banks that may be expected to enjoy such an implicit guarantee, namely state banks that are protected by the state[6] and foreign banks, which may provide external support to their Russian daughters in case of financial difficulties. As these banks are considered to be under implicit protection of the state or the foreign financial institutions, retail depositors perceive them as more reliable and feel no need to monitor their financial conditions (Semenova 2007). We therefore exclude these banks from the sample.

Our hypothesis is that depositors exert less discipline on familiar banks, measured as banks with local or regional references in their names, especially in times of crisis. We hypothesize in other words that depositors exhibit a flight to familiarity in times of crisis, by reducing the market discipline exerted on familiar banks in the post crisis period, relative to the change in discipline exerted on non-familiar banks. The alternative hypothesis is that banks with clear regional references in their name have strong ties with the regional government, rather than familiarity with depositors, and therefore enjoy some form of implicit protection from the local government, making retail depositors less sensitive to the risk of these banks when deciding what to do in response to a bank's deteriorating financial position. To disentangle these two hypotheses we interact our variables of interest with measures of trust in local governments and regional affinity. We find that the flight to familiarity effect is strongly present in regions with strong regional affinity, while this effect is rejected in regions with more trust in regional and local governments. This indicates our results are driven by familiarity and not by any implicit protection from a trusted regional or local government.

This paper contributes to the literature in several ways. We extend the literature on the familiarity bias by looking at household depositor behaviour in times of crisis and establishing the flight to familiarity of household depositors. We contribute to the market discipline literature, by providing a new and important determinant of changes in market discipline during a financial crisis, namely the flight to familiarity. Finally, we also contribute to the deposit insurance literature, by showing how the impact of deposit insurance on household depositor behaviour is mediated by other factors like the familiarity of the bank.

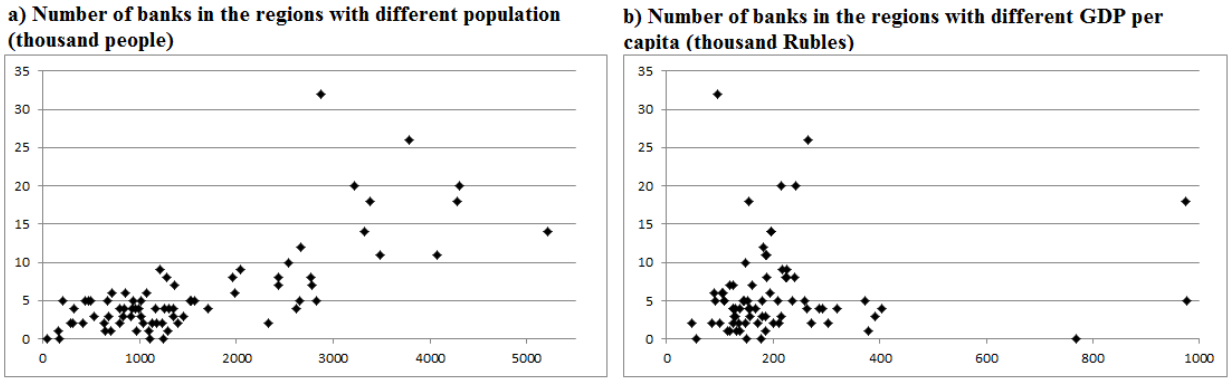
2. Regional deposit markets in Russia

[6] As (Vernikov 2012) points out, the banks controlled by the state are not only those, where the government holds the major part of the ownership. Even if the representative of the government is in the Board of Directors or in any executive body, the government may be involved in the bank's decision-making.

Russia is a vast country consisting of more than 80 regions, different geographically and in income, urbanization rates, spending habits and saving behaviour patterns, and many other factors. Therefore, it is not surprising that there is great cross-regional variation in the size of deposit markets and the number and types of banks and branches functioning in different Russian regions. This leaves much scope for region-specific competition.

The deposit markets vary from region to region in terms of market participants. Figure A 1 in Appendix I shows the number of banks registered in the Russian regions. Many banks are registered and operate in the two largest cities of Moscow and Saint Petersburg, and in Moscow Region, if we exclude them some patterns emerge. Firstly, regions with a higher population and higher GDP per capita have more registered credit organizations per capita (see Figure 1). Secondly, highly-specialized regions—for example, oil-producing regions and agricultural regions in the southwest of Russia—tend to attract more banks per capita.

Figure 1 Cross-regional bank number diversification



Source: CBR regional data

As Figure A 2 and Figure A 3 in Appendix I suggest, there is a great diversity in the number of bank branches operating in different regions. A bank can be registered in one region but have a vast branch network covering many other regions. Regions geographically and culturally closer to Moscow have fewer branches registered in this region, but more branches outside the region. This can be explained by the fact that banks from Moscow dominate these similar regions. Distant regions—such as Far East—do not have many banks from other regions, relying on local banks. Another explanation of why in the Asian part of Russia more local banks have emerged is that many local enterprises found it convenient to use local banks as distances between cities are large. Regions that are ethnically different from Moscow and the central part of Russia—such as Republics with a substantial percentage of the titular nationality—also tend to use local banks and branches registered and operating in the region. The largest regional network belongs to the largest state-controlled Russian bank—Sberbank—covering

approximately one-half of the personal deposit market in 2001–2010. To a significant degree, the cross-regional diversity in deposit market competition is determined by the differences in Sberbank participation, which varies greatly across regions (see Figure A 4 in Appendix I). Sberbank has most of its branches in Central and Northern Russia and there are much fewer in the Eastern part of the country.

Another important characteristic is the size of the market in the region. Most deposits are concentrated in the European part of Russia. As Figure A 5 in Appendix I suggests, more than half Russian territory belongs to regions with very narrow deposit markets. The largest markets are in the richest and most populated regions. For the same regions, we observe the highest deposits per capita (see Figure A 6 in Appendix I).

3. Methodology and Data

We introduce a very simple proxy for the depositors' regional familiarity with the bank. If the bank's name contains words related to its regional geographical position, we assume the household depositor perceives more familiarity with the bank. We introduce two degrees of regional familiarity. A bank is considered familiar to household depositors of a region (*R*) if the name contains the name of the region (e.g. Altay Bank), the name of the city (e.g. Bank of Moscow) or a place in the city (e.g. Okhotny Ryad[7]). To check the robustness of our results we introduce a broader definition of the regional familiarity (*Rb*), which means that a bank is considered to be familiar to household depositors not only if the name includes the region or city name but also if it includes regional characteristics or the titles of some regional objects (e.g. Volga Bank), larger geographic area signals (e.g. South-Eastern Bank) or the word "region" in the name (e.g. InvestRegion Bank). Our operational definition of bank familiarity could alternatively be interpreted as the perceived strength of ties with the regional government. We address this problem in the results section.

We go through the list of all Russian banks working from 2000 to 2010 and check if they are tied to the region and hence familiar to depositors. Some banks changed their names during that period. For example Petrovsky Bank (which is familiar according to broad definition) was Petrovsky Narodny Bank before 2002, then changed the name to MDM Bank Leningradskaya oblast' (which is familiar according to basic definition), then became Vefk Bank (no regional ties at all, unfamiliar) in June 2006 and finally in August 2009 returned to the name Petrovsky Bank. We traced all such changes to identify the quarters where banks had regional ties. For this purpose, we used two databases of Russian bank profiles: Allbanks.ru and BanksBD.spb.ru.

[7] Metro stop in Moscow.

Table 1. State banks versus familiar banks

		State banks (>50% owned by the government)	
		0	**1**
R	**0**	65,972	1,817
	%	97.32	2.68
	1	14,101	613
	%	95.83	4.17
Rb	**0**	58,250	1,560
	%	97.39	2.61
	1	21,823	870
	%	96.17	3.83

There is no evident government ownership dominance in the group of all familiar banks. Table 1 shows, that the distribution of state-owned banks and private banks is virtually the same among familiar and unfamiliar banks. Therefore, the effects that we consider do not come directly from the state ownership.

We test the following hypotheses related to market discipline in the Russian regions:

H1: Depositors of familiar banks exert less market discipline;

H2: During and after the 2008–2009 financial crisis depositors of familiar banks reduce their level of market discipline more than depositors of unfamiliar banks (flight to familiarity hypothesis);

H3.1: Depositors reduce their level of market discipline of familiar banks more in regions with a high level of regional affinity (consistent with flight to familiarity hypothesis);

H3.2: Depositors reduce their level of market discipline of familiar banks more in regions with a high level of trust in regional governments (consistent with alternative hypothesis that regional references in the name capture ties with the regional government and implicit guarantees).

To test H1 we estimate the following regressions for all banks excluding ones from Moscow[8] for the period of 2001–2007, which excludes crisis quarters:

$$MD_{r,i,t} = \alpha + \beta_0 MD_{r,i,t-1} + \beta_1 BF_{r,i,t} + \beta_2 * R_{r,i,t} + \beta_3 * R_{r,i,t} * BF_{r,i,t} +$$

$$+\beta_4 * DIS_{r,i,t} + \beta_5 * Time_t + \beta_6 * Region_r + \varepsilon_{r,i,t}$$

MD is the measure of market discipline at bank *i* in region *r* in quarter *t*. Our measures of *MD* are the personal deposit interest rate (*IR*) for price discipline and the personal deposit growth

[8] Moscow banks have numerous branches in other regions, so the changes in the deposit growth or changes in the market share are not purely regional.

rate (*DG*) for quantity discipline. *R* is a binary proxy for bank's regional ties. In the check for robustness, we replace it with *Rb*, which represents the regionally-tied banks according to broader definition of regional ties. *BF* is a vector of bank fundamentals, measuring bank riskiness. *BF* includes capital adequacy, measured by capital to assets ratio (*CA*), liquidity measured by liquid assets to total assets ratio (*LA*), asset quality measured by the share of non-performing loans (*NPL*) and bank size, measured by natural logarithm of bank total assets (*lnA*). As bank exposure to deposits may influence both pricing policy and growth opportunities, we also include the deposits-to-assets ratio (*DA*). We control for the timing of the bank's admission to the deposit insurance system by introducing a binary variable equal to 1 if bank *i* is accepted to DIS in quarter *t*, and 0 otherwise (*DIS*). We also introduce quarter-year fixed effects and regional fixed effects.

To test H2 we modify the initial regression and estimate it using data for 2001–2010, which includes the crisis quarters:

$$MD_{r,i,t} = \alpha + \beta_0 MD_{r,i,t-1} + \beta_1 BF_{r,i,t-1} + \beta_2 * R_{r,i,t} + \beta_3 * R_{r,i,t} * BF_{r,i,t-1} +$$

$$+\mu_1 * Crisis_t + \mu_2 * Crisis_t * BF_{r,i,t-1} + \mu_3 * R_{r,i,t} * Crisis_t +$$

$$+\mu_4 * R_{r,i,t} * Crisis_t * BF_{r,i,t-1}$$

$$+\beta_4 * DIS_{r,i,t} + \beta_5 * Time_t + \beta_6 * Region_{r,t} + \varepsilon_{r,i,t}$$

Crisis is a binary variable equal to one if quarter *t* belongs to 2008–2009 and zero otherwise. It controls for the effects of the financial crisis in Russia. Table 2 shows the expected effects on deposit growth and the deposit rate.

Table 2. Expected signs of coefficients

Effect	Hypothesis/Comment	Expected sign for price/quantity discipline[9]
$\beta_0 MD_{r,i,t-1}$	Interest rates are persistent over time, and deposit growth may fall over time with increasing size	+/-
$\beta_1 BF_{r,i,t-1}$	Market discipline: safer banks (capitalization) enjoy lower interest rates and higher deposit growth	-/+
$\beta_2 * R_{r,i,t}$	Familiar banks enjoy lower interest rates and higher deposit growth	-/+
$\beta_3 * R_{r,i,t} * BF_{r,i,t-1}$	**H1**: Depositors exert relatively less intense market discipline on familiar banks	+/-
$\mu_1 * Crisis_t$	The crisis slows down deposit growth and makes	+/-

[9] For BF variables the signs are expected for CA, LA and LnA. For NPL the expected signs are the opposite as higher NPL is associated with higher riskiness.

	deposits more expensive	
$\mu_2 * Crisis_t * BF_{r,i,t-1}$	The crisis undermines the opportunities and incentives for bank monitoring as other, macroeconomic factors become more important	+/-
$\mu_3 * R_{r,i,t} * Crisis_t$	Familiar banks are enjoy lower interest rates and higher deposit growth in crisis times	-/+
$\mu_4 * R_{r,i,t} * Crisis_t * BF_{r,i,t-1}$	**H2**: In response to the crisis, depositors decrease their market discipline more for familiar banks: flight to familiarity in crisis times	+/-

For *BF* we use data from bank financial statements published by the CBR[10]. For *DIS* we check the dates of bank admittance at the webpage of the Deposit Insurance Agency[11].

To test H3.1 and H3.2 we introduce a proxy for trust in regional authorities and a regionalism index (*RIndex*). We measure depositor trust in regional and local authorities by the share of the region's population that supports the actions and policy of the regional government (*GovTrust*). This share is calculated using data from the results of the Courier surveys[12], conducted regularly and nation-wide by WCIOM and the Levada center (urban multi-stage stratified random sampling). As the Courier data are not provided as a panel dataset, we collated it manually from monthly data. The question on attitude to local authorities is presented in one out of four questionnaires, not regularly, but for each quarter in our sample we have a month, where the question was included: "Generally speaking, do you hold or not with the actions of the head of your region (republic president, or mayor if in Moscow)?"[13].

To construct *RIndex* we use data provided by Berkowitz, Hoekstra, and Schoors (2014) and choose components that may explain the current level of regionalism based on the transition—or even Soviet—period history of the region. The population is more stable and homogenous if it was characterized by lower ethno-linguistic fractionalization in 1989 (*ELF89*), lower migration (migration inflow per 10,000 inhabitants, 1986–90, *Migration86–90*). Previously less urbanized regions with a lower share of middle class also tend to show higher regional affinity. We measure the former by the share of urban population in 1996 (*Urban96*) and the latter by the share of white-collar workers in 1989 (*MidClass89*). All the data comes from Goskomstat regional statistics. Political and economic conservatism also increases *RIndex*. We proxy it by the share of votes for Yeltsin in the first round of the 1996 presidential elections (*Vote4Yelt96*). As Yeltsin stood for economic and political reforms in that period, a higher vote

[10] http://www.cbr.ru
[11] http://www.asv.org.ru
[12] For more details see https://translate.yandex.com/translate?lang=ru-en&url=http://sophist.hse.ru/db/
[13] ВЫ В ЦЕЛОМ ОДОБРЯЕТЕ ИЛИ НЕ ОДОБРЯЕТЕ ДЕЯТЕЛЬНОСТЬ ГУБЕРНАТОРА ВАШЕЙ ОБЛАСТИ? (ПРЕЗИДЕНТА РЕСПУБЛИКИ, В МОСКВЕ - МЭРА МОСКВЫ)

for Yeltsin in 1996 measures higher regional pro-market sentiment and is assumed to be related to more openness and a lower regional focus today. Higher past government involvement in the economic processes of the region is also assumed to result in lower *RIndex* as the population became habituated to government help and control and started to believe less in the economic agency of the region itself. To measure this aspect we introduce the shares of production subsidies (*ProdSub95*) and agriculture subsidies (*AgriSub95*) in regional budgets in 1995 and the share of enterprises in commerce, public catering and public services owned by the state or municipality (as for June 1997, *State&MunFirms97*). The data on these three measures is taken from Remington (2011). Table 3 shows the correlations between different measures of regionalism. Most correlations are statistically significant and some are quite high. We are therefore are unable to include them into *RIndex* directly.

Table 3. Correlation matrix: measures of regionalism

	ProdSub95	AgriSub 95	State&MunFirms97	Vote4Yelt 96	ELF89	Migration86-90	Urban96	MidClass89
ProdSub95	1							
AgriSub95	0.3318*	1						
State&MunFirms97	0.1629*	0.4033*	1					
Vote4Yelt96	-0.1527*	0.0416*	0.1362*	1				
ELF89	-0.1644*	0.0251*	0.2419*	-0.1032*	1			
Migration86-90	0.1601*	0.0557*	0.0976*	0.1413*	-0.3586*	1		
Urban96	0.0867*	-0.0074	-0.0982*	0.4841*	-0.5209*	0.4044*	1	
MidClass89	0.0447*	-0.0976*	-0.1920*	0.4400*	-0.3928*	0.3866*	0.7245*	1

* - significant at 5%-level

To construct *RIndex* we perform a principal component analysis on the above nine factors. The first three components explain 69.46% of the variation and using the EigenValues we sum them into the index. **Ошибка! Неверная ссылка закладки.** shows the results of the PCA analysis. The correlations suggest that a higher score on the index corresponds with a lower *RIndex* as the index is associated with a higher state of economic dependence, higher mobility, a higher propensity to economic reforms, etc. The index, that is, is decreasing in regionalism.

Table 4. The regionalism index

Eigen Values:	*2.67946*	*1.66119*	*1.21617*	Kaiser-Meyer-Olkin measure of sampling adequacy	Correlation with RIndex
Variable	PC1(EigenVector)	PC2(EigenVector)	PC3(EigenVector)		
ProdSub1995	0.0714	0.4827	-0.4930	0.5377	0.2203*
AgriSub1995	-0.0287	0.6236	0.0347	0.5865	0.3094*
State&MunFirms1997	-0.1021	0.5711	0.3760	0.4906	0.2764*
Vote4Yelt1996	0.3341	0.0408	0.6400	0.6354	0.6832*
ELF1990	-0.4118	0.0316	0.4102	0.7109	-0.4470*
Migration1986-90	0.3670	0.2063	-0.1533	0.7578	0.5882*
UrbanPop1996	0.5461	0.0138	0.0758	0.6985	0.8043*
MidClass1989	0.5192	-0.0811	0.0857	0.7176	0.7172*

* - significant at 5%-level

To test the hypotheses H3.1 and H3.2 we separate the sample by the median values of the *RIndex* (for H3.1) and our proxy of trust in regional authorities (for H3.2). Table 5 shows that the

shares of familiar banks are a bit lower both in the regions with low levels of trust in regional authorities and in regions with low levels of regionalism

Table 5. Share of banks with regional ties in sub-samples

Factor		*Mean*	*Obs*
GovTrust	<Median: low trust regions	0.2474	7057
	>Median: high trust regions	0.2583	7131
	Difference	-0.0109*	
Rindex	>Median: low regionalism	0.2399	11690
	<Median: high regionalism	0.3019	12124
	Difference	-0.0620***	

Differences are significant at *** - 1% level, * - 10% level

We run our previous regressions separately for the subsamples provided in Table 5 to identify the mechanism underlying the regional references that are related to lower market discipline. If we observe a deterioration of market discipline for familiar banks only in the regions with a higher degree of trust in local authorities, we cannot reject the alternative hypothesis of implicit support by trusted regional authorities (H3.2). If, on the other hand, we observe a deterioration of market discipline for familiar banks only in the regions with higher levels of regionalism, we cannot reject the flight to familiarity hypothesis (H3.1).

Table 6. Descriptive statistics

Var	Description	2001-2007 sample					2001-2010 sample				
		Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max
IR	Implicit deposit interest rate (Interest expenses on personal deposits/Average personal deposits)	16096	0.027	0.037	0.000	0.486	20580	0.026	0.033	0.000	0.486
DG	Personal deposit growth rate	16242	0.216	0.772	-0.906	7.922	20279	0.186	0.731	-0.906	7.922
R	1 - if bank has a regionally-tied name. 0 - otherwise	17575	0.279	0.449	0.000	1.000	23894	0.272	0.445	0.000	1.000
Rg	1 - if bank has a regionally-tied name (broad definition). 0 – otherwise	17575	0.458	0.498	0.000	1.000	23894	0.450	0.497	0.000	1.000
CA	Capital to total assets ratio	17128	0.251	0.178	0.003	0.965	21837	0.243	0.174	0.003	0.965
LA	Liquid assets to total assets ratio	17083	0.305	0.178	0.000	0.932	21757	0.306	0.177	0.000	0.932
NPL	Share of non-performing loans in total loans	17088	0.020	0.053	0.000	0.621	21793	0.021	0.049	0.000	0.621
DA	Ratio of personal deposits to total assets	17128	0.231	0.180	0.000	0.978	21837	0.246	0.185	0.000	0.978
LNA	Ln(Total assets)	17128	5.798	1.889	-0.074	11.343	21837	6.131	1.947	-0.074	11.343
DIS	1 - if bank is admitted to the deposit insurance system. 0 – otherwise	17603	0.545	0.498	0.000	1.000	23934	0.666	0.472	0.000	1.000
Crisis	1 - for 2008-2009. 0 - otherwise						23934	0.135	0.341	0.000	1.000
GovTrust	Share of the region population. who supports the actions of the regional authorities	8788	0.609	0.193	0.045	1.000	12905	0.610	0.187	0.040	1.000
RIndex	Regionalism Index	19755	0.115	5.055	-12.195	8.276	23854	0.108	5.066	-12.195	8.276
ProdSub95	Share of subsidies for production in the region's budget (1995)	17547	13.622	6.577	3.973	101.928	23854	13.706	7.079	3.973	101.928
AgriSub95	Share of subsidies for argiculture in the region's budget (1995)	17547	9.032	5.703	0.000	28.840	23854	8.987	5.719	0.000	28.840
State&MunFirms97	Share of enterprises owned by the state or municipalities (1997)	17547	18.694	17.602	0.000	79.680	23854	18.686	17.663	0.000	79.680
Vote4Yelt96	Share of votes for Yeltsin in the region (1996. first round of president's election)	17547	34.800	9.832	19.280	59.930	23854	34.779	9.824	19.280	59.930
ELF89	Ethno-linguistic fractionalization (1990)	17547	0.347	0.220	0.051	0.854	23854	0.347	0.221	0.051	0.854
Migration86-90	Net inflow migration per 10.000 inhabitants (average. 1986-1990)	17547	13.489	48.987	-117.000	162.000	23854	13.281	48.509	-117.000	162.000
Urban96	Share of urban population (1996)	17547	71.763	14.185	24.100	100.000	23854	71.800	14.272	24.100	100.000
MidClass89	Share of white-collar workers (1989)	17547	0.310	0.055	0.237	0.463	23854	0.310	0.056	0.237	0.463

To eliminate the influence of outliers, we winsorize the sample by 1% from each tail. We exclude observations with negative capital adequacy and liquidity ratios as mistaken We exclude Moscow banks from the sample as many of them operate outside Moscow, so it is impossible to apply regional characteristics for them. As mentioned, state banks and foreign banks are also excluded.

Table 6 shows the descriptive statistics for the variables we use.

Results

Market discipline and bank familiarity

We start by looking separately at the group of familiar banks and checking if they are different in terms of deposit growth, interest rates and overall riskiness. Table 7 compares the banks with and without regional references and shows the t-test results for the equality of means. Both types of banks show the same average deposit growth rates and do not differ in terms of bank size. However familiar banks are more risky: they show lower capital adequacy and liquidity, and higher credit risks. Interestingly, this riskiness is not compensated by higher deposit interest rates. Moreover, the familiar banks pay lower interest rates than those without regional cues in their name. At the same time, they rely more on deposits showing a higher deposit-to-asset ratio.

Table 7. Familiar versus unfamiliar banks

	Familiar banks		**Unfamiliar banks**		**Difference in means**
BF	*Obs*	*Mean*	*Obs*	*Mean*	
IR	7026	0.0374	17914	0.0390	-0.0016**
DG	6929	0.1928	17820	0.2061	-0.0133
DA	5954	0.2748	15846	0.2360	0.0388***
CA	9267	0.2678	23829	0.2883	-0.0205***
LA	9151	0.2689	23510	0.2724	-0.0035*
NPL	9257	0.0518	23762	0.0476	0.0042***
LNA	9271	5.2819	23837	5.3109	-0.0290

*** p<0.01, ** p<0.05, * p<0.1

To check whether our baseline results are in line with the existing literature, we separately estimate the basic regressions for market discipline for 2001–2007, without considering regional references (specification I). To test H1 we introduce the group of familiar banks and estimate a model with the binary variable *R* included, separately and multiplied by bank fundamentals to check the changes in sensitivity (II). Then we switch to the larger dataset of 2001–2010 and run the basic crisis regressions to check if the results for crisis influence coincide with the predictions in the literature (III). Finally, we test H2 by introducing the

interception variables capturing the changes in sensitivity to the riskiness of the familiar banks during the crisis quarters (IV). All regressions include fixed effects, as suggested by the Hausman test.

Table 8 shows our results which suggest that there is both quantity and price discipline in the Russian market for household deposits. We find that banks with higher capital adequacy and with a lower share of non-performing loans demonstrate higher deposit growth rates, consistent with the existence of quantity discipline. In line with (Karas et al. 2010) the price-based mechanism is less pronounced but higher credit risks are nonetheless compensated by higher deposit interest rates.

Contrary to our predictions in H1, regional cues in bank names do not alleviate the market discipline exerted by depositors in stable times. In fact the opposite seems to be true, as depositors of familiar banks are more sensitive to the most important and relatively easily observable bank fundamental of bank capitalization before the financial crisis of 2008, as shown by the strongly significant and positive coefficients in specification II and IV of the deposit growth panel. It seems that familiar banks face more intense quantity disciplining in stable times. This is not necessarily bad news as these banks also tend to be riskier than unfamiliar banks (as seen in the summary statistics). There is no such difference between familiar and unfamiliar banks for price-based discipline.

Now we turn our attention to the financial crisis of 2008, which can be described as a pure exogenous shock to the Russian banking system. During the financial crisis both price and quantitative market discipline became weaker for all the Russian banks, which is in line with a cross-country study by Cubillas et al. (2012). The weak mechanism of price-based discipline with respect to loan quality which existed before the 2008 crisis, is undone in the post-crisis period. As for quantity-based discipline, depositors lose their sensitivity to capital adequacy, and liquidity. But this moral hazard effect with respect to capital sensitivity is clearly more pronounced for familiar banks, as in H2. While familiar banks have a higher sensitivity to capital adequacy than unfamiliar banks in the pre-crisis period, this order is reversed in the post-crisis period. Indeed, in the post-crisis period the capital sensitivity of familiar banks essentially falls to zero, while unfamiliar banks retain the level of market discipline they had before the crisis. Deposit growth sensitivity to loan quality is unaffected by bank familiarity or the crisis and remains at a constant level throughout our results.

Table 8. Market discipline and regional references

	Interest Rate				**Deposit Growth**			
	2001-2007		*2001-2010*		*2001-2007*		*2001-2010*	
Variables	I	II	III	IV	I	II	III	IV
$MD_{(t-1)}$	0.264***	0.264***	0.277***	0.276***	-0.031	-0.032	-0.016	-0.017
	(0.044)	(0.044)	(0.045)	(0.045)	(0.020)	(0.020)	(0.017)	(0.017)
CA	0.003	0.003	0.004	0.005	**0.417*** **	**0.186**	**0.405*** **	**0.256***
	(0.006)	(0.007)	(0.005)	(0.005)	(0.158)	(0.167)	(0.141)	(0.152)
*Crisis*CA*			-0.003	-0.004			-0.506**	-0.336
			(0.004)	(0.005)			(0.204)	(0.241)
*R*CA*		-0.002		-0.003		**1.009** **		**0.697***
		(0.014)		(0.011)		(0.402)		(0.362)
*Crisis*R*CA*				0.006				**-0.942*** **
				(0.009)				(0.336)
NPL	0.020	0.017	0.024	**0.023***	**-1.223*** **	**-1.100*** **	**-1.219*** **	**-1.172*** **
	(0.018)	(0.015)	(0.016)	(0.013)	(0.260)	(0.325)	(0.254)	(0.328)
*Crisis*NPL*			-0.028*	-0.031*			0.575	0.281
			(0.017)	(0.016)			(0.456)	(0.584)
*R*NPL*		0.010		0.004		-0.423		-0.174
		(0.049)		(0.045)		(0.440)		(0.435)
*Crisis*R*NPL*				0.013				1.009
				(0.046)				(0.917)
LA	-0.004	-0.005	-0.003	-0.004	-0.015	0.006	0.025	0.038
	(0.004)	(0.004)	(0.003)	(0.004)	(0.100)	(0.114)	(0.085)	(0.096)
*Crisis*LA*			-0.002	-0.004			**-0.284** **	**-0.241***
			(0.003)	(0.003)			(0.110)	(0.132)
*R*LA*		0.002		0.003		-0.134		-0.108
		(0.006)		(0.005)		(0.194)		(0.169)
*Crisis*R*LA*				0.010*				-0.226
				(0.005)				(0.196)
LnA	0.000	0.000	0.000	0.000	-0.005	-0.016	-0.023	-0.030
	(0.001)	(0.001)	(0.001)	(0.001)	(0.026)	(0.027)	(0.019)	(0.020)
*Crisis*LnA*			0.001***	0.001***			-0.024***	-0.031***
			(0.000)	(0.000)			(0.009)	(0.011)
*R*LnA*		-0.000		-0.000		0.073**		0.042*
		(0.001)		(0.001)		(0.030)		(0.025)
*Crisis*R*LnA*				-0.001				0.031*
				(0.001)				(0.018)
DA	-0.003	-0.003	-0.002	-0.002	-0.999***	-1.007***	-0.838***	-0.842***
	(0.004)	(0.004)	(0.003)	(0.003)	(0.106)	(0.104)	(0.078)	(0.077)
DIS	0.000	0.000	-0.002	-0.003	0.018	0.012	0.439***	0.465***
	(0.003)	(0.003)	(0.004)	(0.004)	(0.060)	(0.060)	(0.111)	(0.136)
R		-0.001		-0.000		-0.416		-0.275
		(0.009)		(0.007)		(0.254)		(0.223)
Crisis			0.000	0.000			0.000	0.000
			(0.000)	(0.000)			(0.000)	(0.000)
*Crisis*R*				0.000				-0.076
				(0.006)				(0.181)
Time fixed effects	+	+	+	+	+	+	+	+
Region fixed effects	+	+	+	+	+	+	+	+
Constant	0.013*	0.014*	0.011**	0.013**	0.427***	0.490***	0.267**	0.314**
	(0.007)	(0.008)	(0.006)	(0.006)	(0.159)	(0.168)	(0.126)	(0.134)
Observations	15,136	15,109	19,536	19,500	15,343	15,316	19,318	19,283
R^2_w	0.139	0.140	0.149	0.150	0.064	0.067	0.070	0.072
Number of banks	689	688	694	693	691	690	696	695

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Hence we cannot, for the moment, reject Hypothesis H2, the flight to familiarity. The challenge remains to disentangle the flight to familiarity effect from the alternative hypothesis of implicit support of banks with regional cues in their names due to trust in regional authorities. This problem is addressed in the next section.

Implicit guarantees or flight to familiarity?

In this section we discuss our two competing hypotheses for the interpretation of the moral hazard effect during the crisis for banks with local references in their names.

Table 9 shows the estimates of our main regressions (specifications II and IV) for two sets of subsamples. The first four columns deal with regions with above median and below median shares of trust in local authorities. The last four columns show results for regions with above median and below median levels of the *RIndex* (which is decreasing in regionalism).

Our results provide clear support for the flight to familiarity hypothesis H3.1. During the crisis, market discipline was undermined only in regions with above median levels of regionalism: depositors in regions that are strongly attached to their region become less sensitive to the observable risk of familiar banks, relative to unfamiliar banks and to regions with less regional affinity. This effect is absent in the first four columns, where we split our sample in above or below the median levels of trust in local authorities. This is convincing evidence that we cannot reject the flight to familiarity of household depositors in times of crisis, while we can reject the alternative hypothesis that our measure of familiarity actually captures ties with the regional government and hence implicit subsidies.

Table 9. Implicit guaranties versus flight to familiarity

	GovTrust				**Rindex**			
	>Median: high trust region		***<Median: low trust region***		***>Median: low regionalism***		***<Median: high regionalism***	
Variable	*2001-2007*	*2001-2010*	*2001-2007*	*2001-2010*	*2001-2007*	*2001-2010*	*2001-2007*	*2001-2010*
MD(t-1)	-0.032	-0.021	0.057	0.040	0.021	0.031	-0.070***	-0.049**
	(0.042)	(0.036)	(0.037)	(0.040)	(0.032)	(0.029)	(0.023)	(0.020)
CA	0.595	0.709*	0.161	0.377	0.134	0.215	0.265	0.311
	(0.455)	(0.397)	(0.257)	(0.249)	(0.200)	(0.176)	(0.263)	(0.239)
*Crisis*CA*		-1.245***		-0.214		-0.492**		-0.257
		(0.478)		(0.382)		(0.201)		(0.379)
*R*CA*	0.959	0.329	0.760	0.336	0.767	0.529	1.022**	0.712
	(0.585)	(0.547)	(0.919)	(0.824)	(0.672)	(0.588)	(0.480)	(0.446)
Crisis*R*CA		**0.899**		**-0.947**		**-0.023**		**-1.189*** **
		(0.660)		(0.654)		(0.464)		(0.456)
NPL	-1.359	-1.553	-1.863**	-2.392***	-1.674***	-1.638***	-0.758*	-0.869**
	(1.047)	(0.961)	(0.738)	(0.691)	(0.463)	(0.456)	(0.395)	(0.419)
*Crisis*NPL*		1.122		1.561*		1.169		-0.467
		(1.545)		(0.834)		(0.936)		(0.780)
*R*NPL*	-0.795	-0.388	0.694	1.474*	0.426	0.625	-0.807	-0.555
	(1.475)	(1.375)	(0.916)	(0.850)	(1.047)	(1.016)	(0.490)	(0.510)
Crisis*R*NPL		**-1.238**		**0.428**		**-1.298**		**2.413***
		(1.862)		(1.719)		(1.468)		(1.329)
LA	0.292	0.192	-0.231	-0.170	-0.042	0.004	0.071	0.062
	(0.281)	(0.230)	(0.198)	(0.190)	(0.102)	(0.091)	(0.215)	(0.179)
*Crisis*LA*		-0.484**		0.055		-0.188**		-0.254
		(0.233)		(0.225)		(0.087)		(0.254)
*R*LA*	-0.262	-0.389	-0.006	0.009	-0.277	-0.287	0.064	0.133
	(0.331)	(0.294)	(0.491)	(0.440)	(0.263)	(0.227)	(0.275)	(0.238)
*Crisis*R*LA*		0.333		-0.222		0.019		-0.339
		(0.296)		(0.432)		(0.220)		(0.308)
LnA	-0.055	-0.068	-0.086*	-0.052	-0.069**	-0.066***	0.034	0.004
	(0.070)	(0.049)	(0.048)	(0.038)	(0.031)	(0.023)	(0.041)	(0.031)
*Crisis*LnA*		-0.064***		0.005		-0.022*		-0.040*
		(0.019)		(0.022)		(0.011)		(0.021)
*R*LnA*	0.079	0.058	0.085	0.054	0.067	0.055	0.059	0.026
	(0.060)	(0.051)	(0.071)	(0.057)	(0.050)	(0.042)	(0.039)	(0.032)
*Crisis*R*LnA*		0.071***		0.004		0.025		0.035
		(0.026)		(0.047)		(0.020)		(0.030)
DA	-0.825***	-0.735***	-1.151***	-0.854***	-1.004***	-0.838***	-0.978***	-0.826***
	(0.222)	(0.154)	(0.205)	(0.158)	(0.137)	(0.102)	(0.153)	(0.115)
DIS	0.157	0.186*	0.273*	0.223*	0.218***	0.149**	-0.141	-0.098
	(0.125)	(0.095)	(0.139)	(0.117)	(0.076)	(0.063)	(0.090)	(0.080)
R	-0.555	-0.411	-0.326	-0.101	-0.246	-0.259	-0.527*	-0.284
	(0.472)	(0.435)	(0.423)	(0.368)	(0.448)	(0.382)	(0.300)	(0.264)
Crisis		0.000		-0.307		0.334***		0.541**
		(0.000)		(0.238)		(0.115)		(0.256)
*Crisis*R*		-0.851***		0.218		-0.223		-0.052
		(0.287)		(0.416)		(0.207)		(0.318)
Time fixed effects	+	+	+	+	+	+	+	+
Region fixed effects	+	+	+	+	+	+	+	+
Constant	0.522	0.607*	0.558	0.401	0.812***	0.724***	0.239	0.340*
	(0.436)	(0.319)	(0.341)	(0.285)	(0.184)	(0.149)	(0.259)	(0.205)
Observations	3,853	5,150	3,860	5,045	7,563	9,506	7,699	9,707
R^2_w	0.064	0.079	0.059	0.064	0.059	0.075	0.045	0.049
Number of banks	447	462	433	452	349	352	343	346

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Robustness checks

To assure robustness, we divide the sample into a series of alternative sub-samples left and right of the median of the individual components of *RIndex* and re-estimate our main specifications. The results for capital adequacy are presented in panels A–C of Table 10, the full regression results can be found in Table A 1–Table A 4 in Appendix II. We observe that the sensitivity of deposit growth to capital adequacy tends to disappear mainly in regions which were characterized in the past by lower state involvement, less pro-market sentiment (lower share of votes for Yeltsin), higher conservatism, higher stability and homogeneity (migration, urbanization, share of middle class, etc.).

Table 10. Components of the regionalism index

Panel A						
Variable	**ProdSub95**		**AgriSub95**		**State&MunFirms97**	
	>Median	*<Median*	*>Median*	*<Median*	*>Median*	*<Median*
*R*CA (2001-2007)*	1.785***	-0.005	0.805	1.172**	1.187**	0.732
	(0.505)	(0.435)	(0.534)	(0.575)	(0.533)	(0.585)
*R*CA (2001-2010)*	1.309***	-0.140	0.482	0.930*	0.930*	0.475
	(0.497)	(0.379)	(0.469)	(0.547)	(0.474)	(0.530)
*Crisis*R*CA (2001-2010)*	-1.816***	0.189	-0.294	-1.310***	-1.437**	-0.429
	(0.506)	(0.409)	(0.429)	(0.497)	(0.634)	(0.400)
Panel B						
Variable	**Vote4Yelt96**		**ELF89**		**Migration86-90**	
	>Median	*<Median*	*>Median*	*<Median*	*>Median*	*<Median*
*R*CA (2001-2007)*	0.349	1.346**	0.534	1.348***	1.044**	0.901
	(0.567)	(0.536)	(0.543)	(0.482)	(0.470)	(0.618)
*R*CA (2001-2010)*	0.085	1.025**	0.382	0.861*	0.635	0.732
	(0.493)	(0.501)	(0.486)	(0.467)	(0.439)	(0.563)
*Crisis*R*CA (2001-2010)*	0.562	-1.833***	-0.789	-1.071**	-0.963**	-1.238**
	(0.422)	(0.452)	(0.494)	(0.435)	(0.487)	(0.487)
Panel C						
Variable	**Urban96**		**MidClass89**			
	>Median	*<Median*	*>Median*	*<Median*		
*R*CA (2001-2007)*	0.970	0.886*	0.945*	0.884		
	(0.685)	(0.463)	(0.537)	(0.582)		
*R*CA (2001-2010)*	0.677	0.630	0.504	0.710		
	(0.612)	(0.422)	(0.494)	(0.530)		
*Crisis*R*CA (2001-2010)*	0.172	-1.435***	-0.023	-1.197**		
	(0.500)	(0.496)	(0.520)	(0.554)		

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

For further robustness we repeat our main estimations for a broader definition of bank familiarity, including banks whose names refer to the city name, or the name of some local landmark or a broader area (*Rb*). The results of the H1–H2 estimations for this broader definition of familiarity are presented in Table A 5. Table A 6 shows the results for H3.1 and H3.2 (both in Appendix II). The results are virtually the same as for the stricter definition of bank familiarity.

They suggest stronger quantity-based disciplining for familiar banks in stable times and the absence of any sensitivity to capital adequacy during crisis quarters. The latter appears again only in regions with higher levels of regionalism[14]. The main qualitative difference is that the evidence for the overall deterioration of market discipline during the crisis is much weaker.

A final robustness check involves the exclusion of two additional large regions from the initial samples, namely the Moscow region (Moscow oblast) and the city of Saint-Petersburg. These two also have some banks (significantly fewer than Moscow though), which have several offices in other regions, and which may distort the regional component of our study. These results are presented in Table A 7 and Table A 8[15] in Appendix II, they generally support both the results of the pre-crisis and the post-crisis period, and the regionalism hypothesis.

Conclusion

We analyse whether depositor familiarity with a bank affects depositor behaviour in a financial crisis. We measure bank familiarity by identifying regional or local cues in bank names. We measure depositor behaviour by market discipline, which is depositor sensitivity to observable bank risk. Since we need an exogenous crisis and variation in bank familiarity, we use Russia as a testing ground for our hypotheses.

Using 2001–2010 bank-level and region-level data for Russia, we find that depositors of familiar banks become less sensitive to bank risk after a financial crisis relative to depositors of unfamiliar banks. More specifically, familiar banks have a higher sensitivity to capital adequacy than unfamiliar banks in the pre-crisis period, but in the crisis period the capital sensitivity of familiar banks falls to zero, while unfamiliar banks retain the level of market discipline they had before the crisis.

We checked that the results are not driven by implicit support of regional governments to banks with regional ties, but indeed by the familiarity bias, by interacting our variables of interest with measures of trust in local governments and regional affinity. We find that the flight to familiarity effect cannot be rejected in regions with strong regionalism, while the effect is rejected in regions with more trust in regional and local governments. This indicates that the results are driven by familiarity and not by any implicit protection from a trusted regional or local government.

[14] Components analysis results are available upon request, they coincide with the ones received for the main sample.
[15] Components analysis results are available upon request, they coincide with the ones received for the main sample.

Our analysis shows, therefore, that the fall in depositor discipline in the Russian banking sector in response to the financial crisis is not driven by implicit guarantees by regional governments, but rather by a behavioural bias that has been well established in other investment fields, namely the flight to familiarity during a crisis. It would be interesting to verify in further research whether this contribution to the market discipline literature extends beyond the Russian banking market and whether familiar banks can strategically exploit this familiarity bias by taking on more risk in the immediate post-crisis period without paying a penalty in deposit funding.

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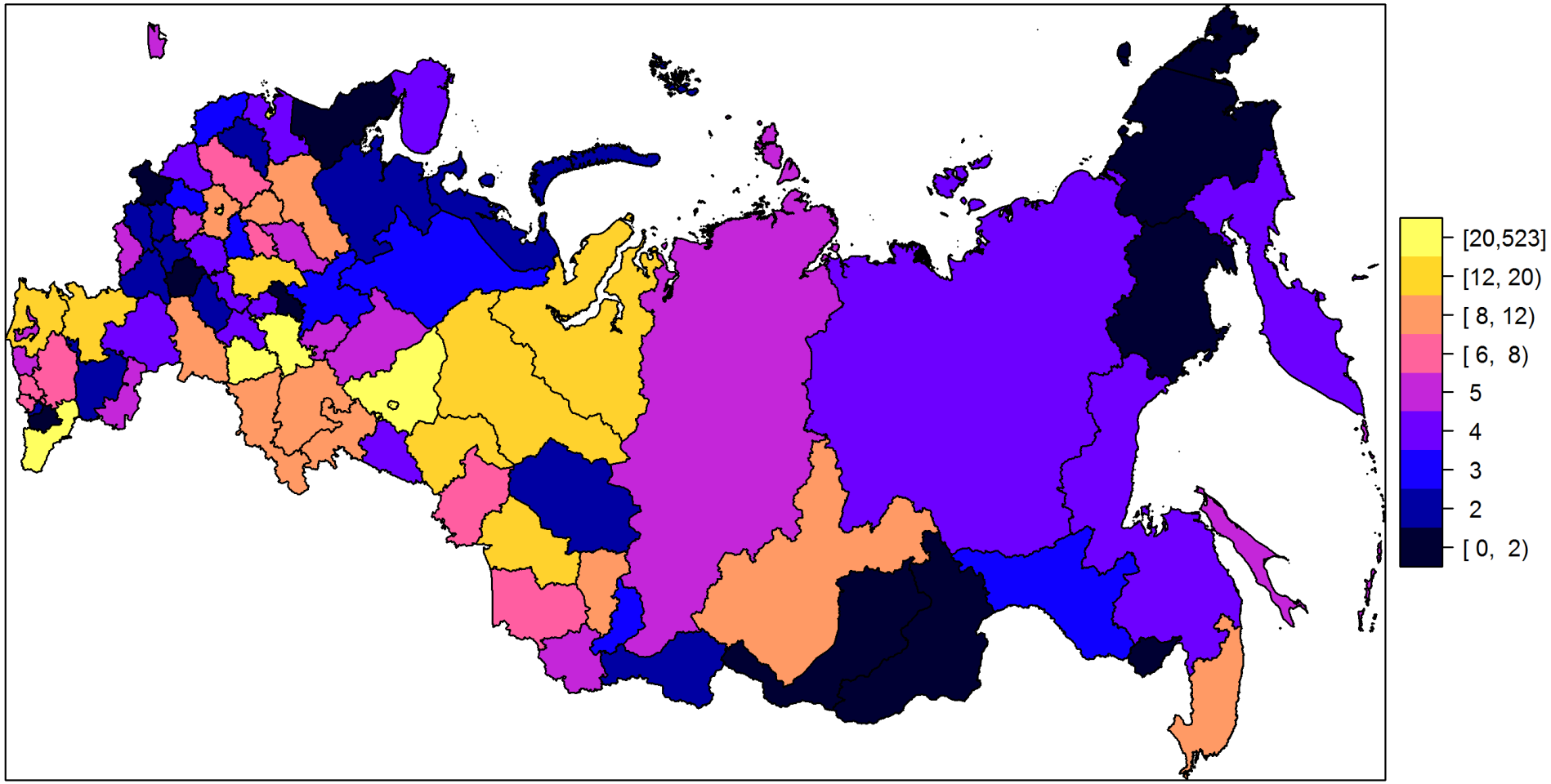
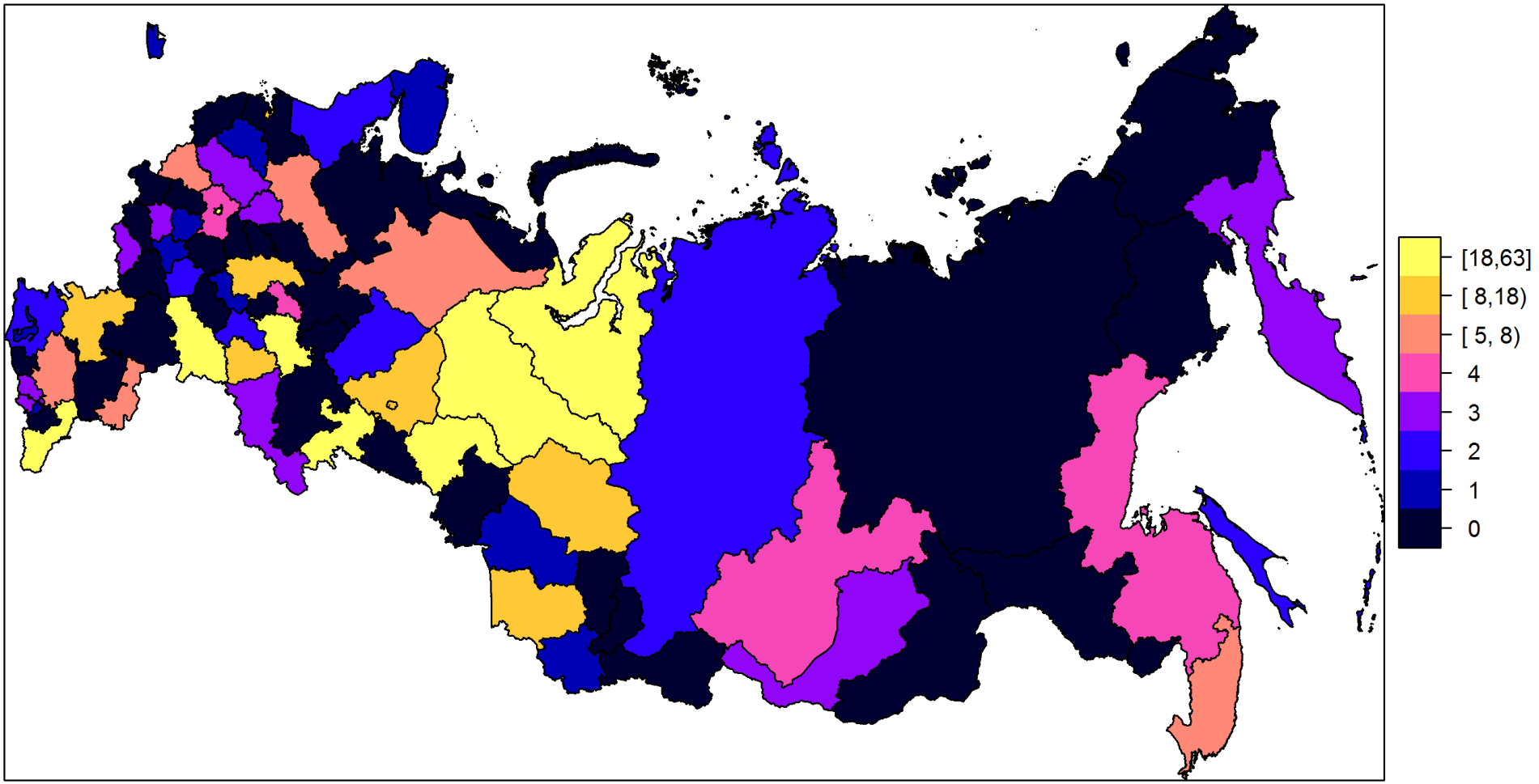
APPENDIX I

Figure A 1 Number of banks, registered in the region, 2010



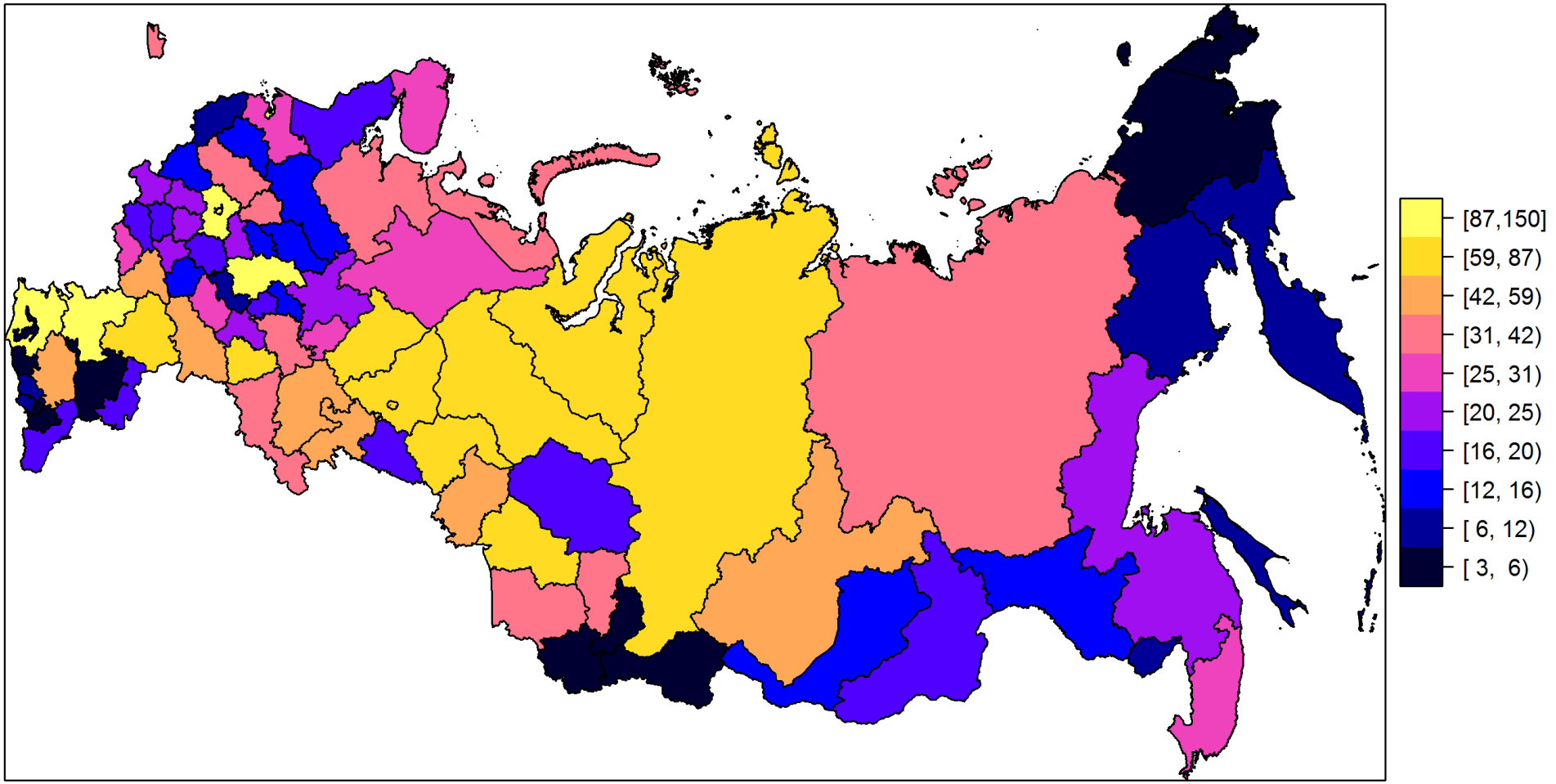
Source: CBR regional data

Figure A 2 Number of bank branches (head office of the bank is in the region), 2010



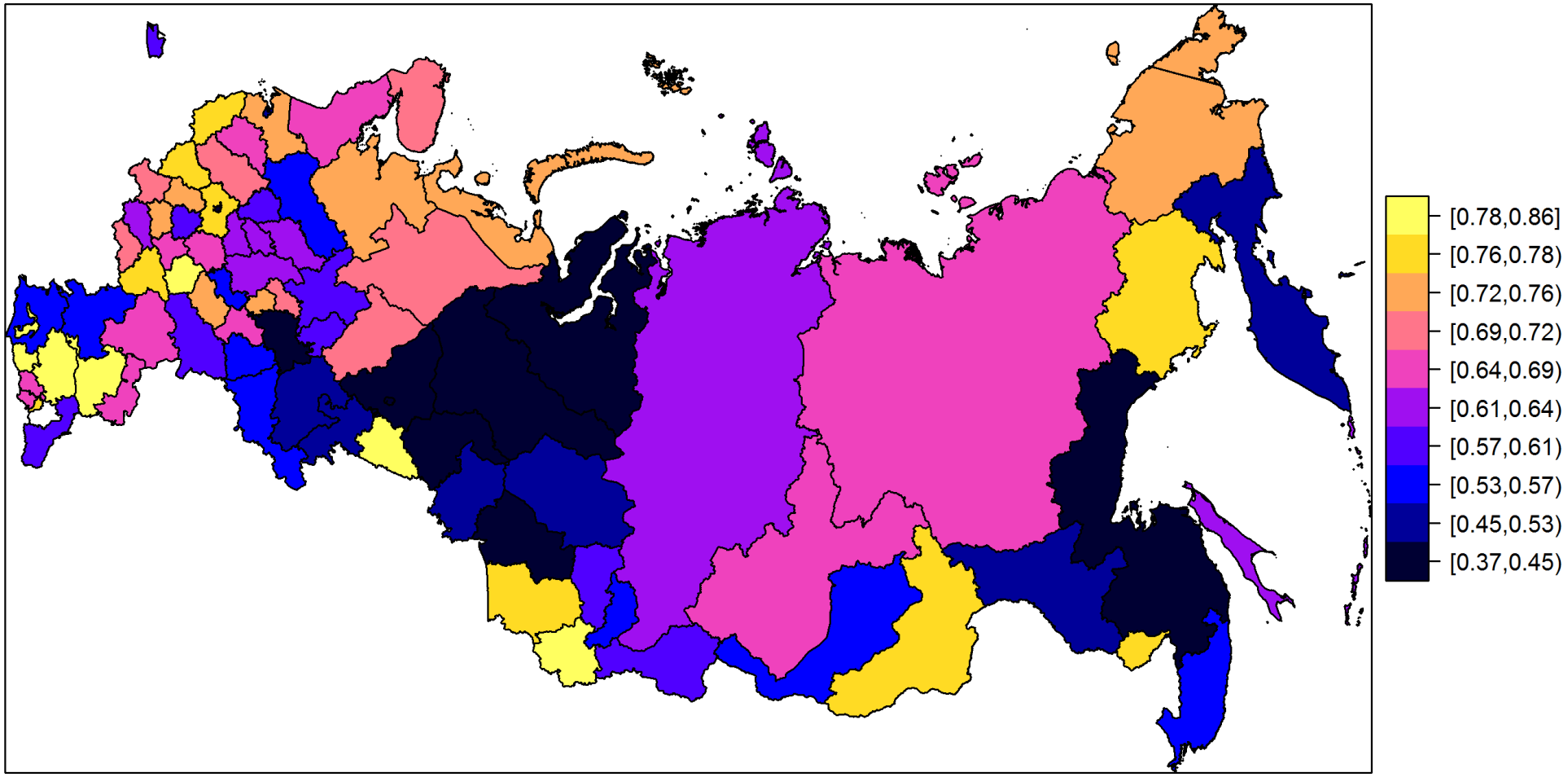
Source: CBR regional data

Figure A 3 Number of bank branches (head office of the bank is in other region), 2010



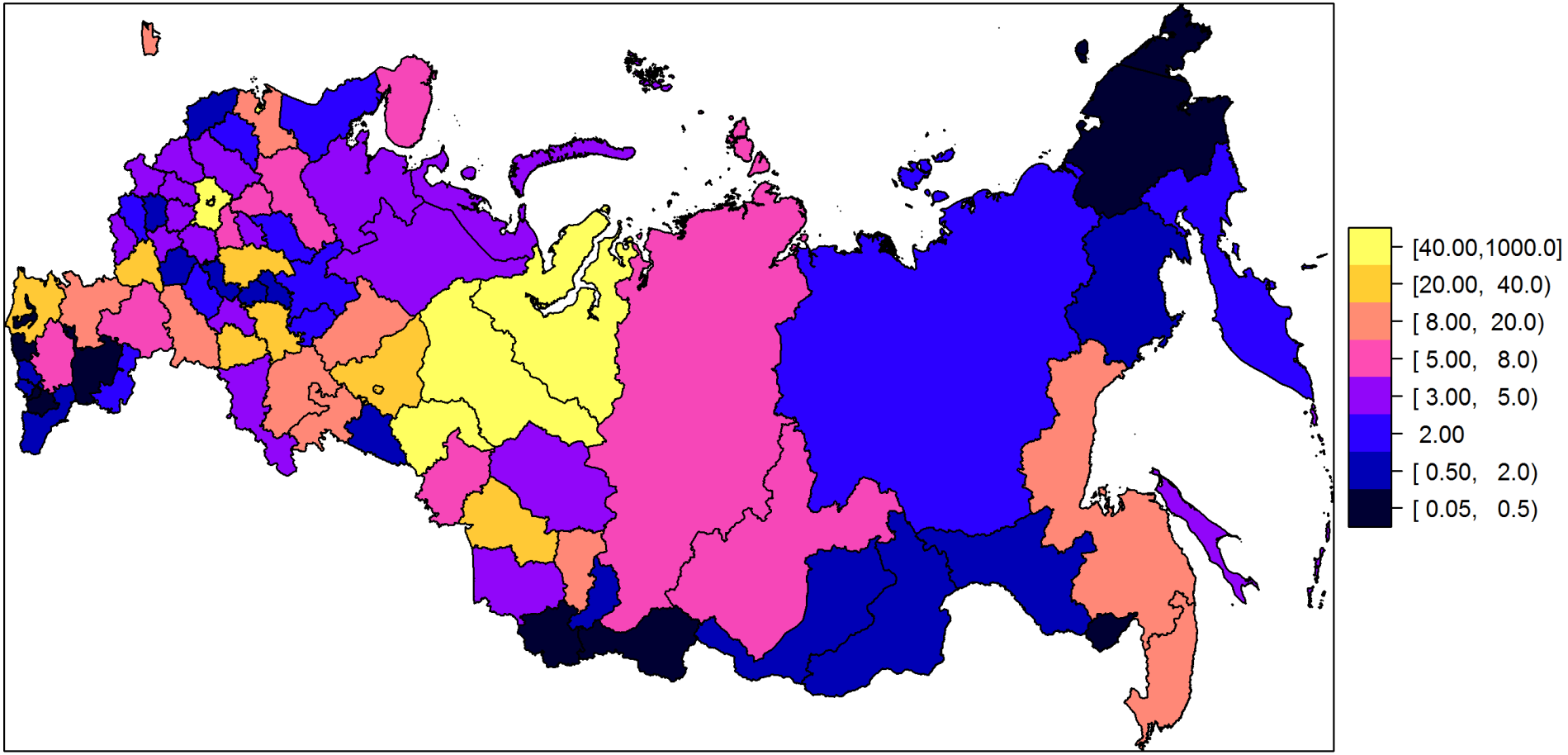
Source: CBR regional data

Figure A 4 Regional share of Sberbank, 2010



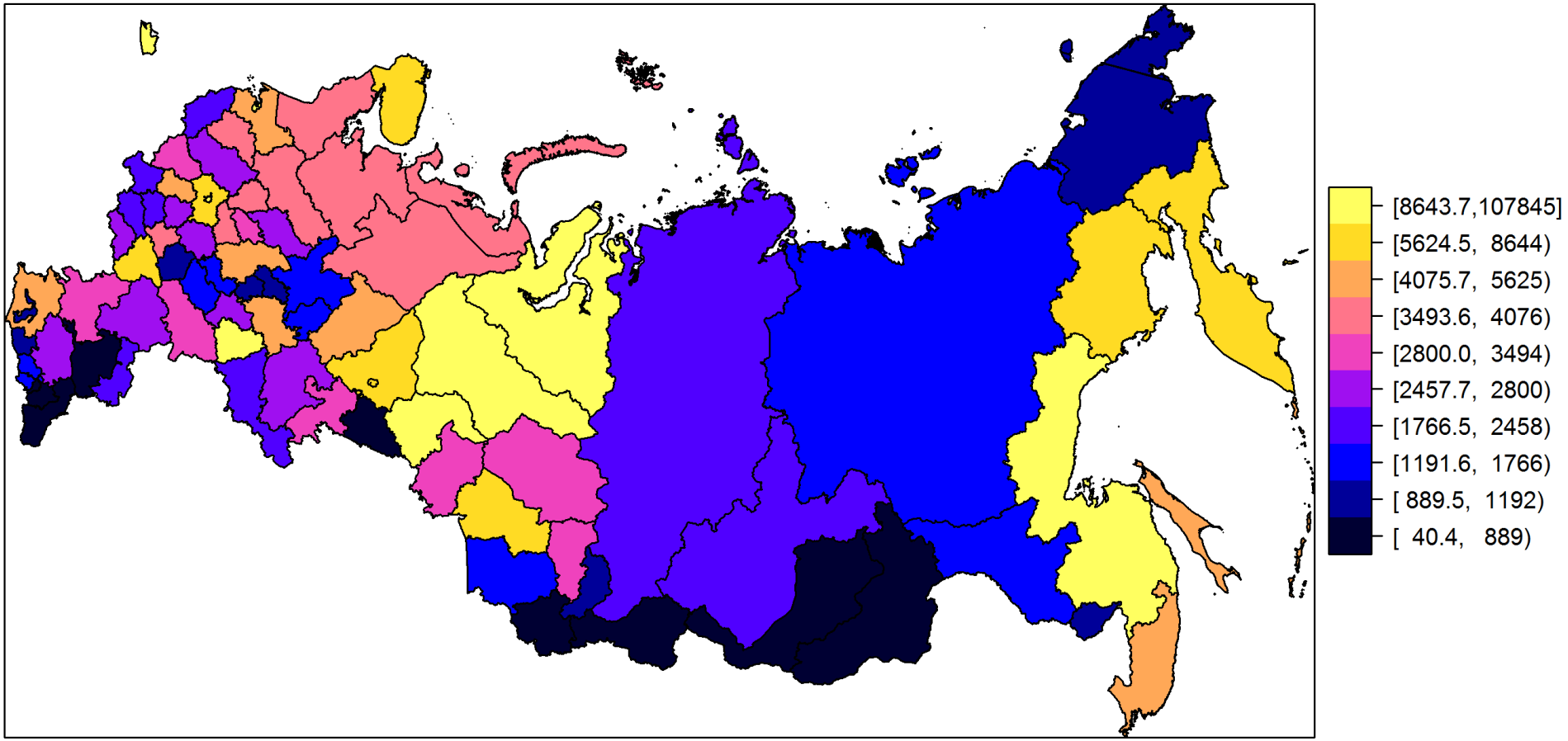
Source: Rosstat regional data

Figure A 5 Personal deposits, 2010 (trillion Rubles)



Source: CBR regional data

Figure A 6 Personal deposits per capita, 2010 (thousand Rubles)



Source: CBR regional data

APPENDIX II

Table A 1. Components of *RIndex*: shares of subsidies

	ProdSub95				AgriSub95			
	>Median		<Median		>Median		<Median	
Variable	2001-2007	2001-2010	2001-2007	2001-2010	2001-2007	2001-2010	2001-2007	2001-2010
$MD_{(t-1)}$	-0.003	0.014	-0.052*	-0.043*	0.027	0.039	-0.063**	-0.046**
	(0.027)	(0.024)	(0.029)	(0.026)	(0.027)	(0.025)	(0.026)	(0.022)
CA	0.069	0.213	0.230	0.256	0.174	0.240	0.180	0.245
	(0.244)	(0.221)	(0.217)	(0.203)	(0.208)	(0.177)	(0.275)	(0.248)
Crisis*CA		0.084		-0.672***		-0.397**		-0.360
		(0.401)		(0.251)		(0.197)		(0.407)
R*CA	1.785***	1.309***	-0.005	-0.140	0.805	0.482	1.172**	0.930*
	(0.505)	(0.497)	(0.435)	(0.379)	(0.534)	(0.469)	(0.575)	(0.547)
Crisis*R*CA		-1.816***		0.189		-0.294		-1.310***
		(0.506)		(0.409)		(0.429)		(0.497)
LA	-0.128	-0.091	0.100	0.116	-0.060	-0.026	0.077	0.085
	(0.157)	(0.137)	(0.153)	(0.129)	(0.094)	(0.088)	(0.200)	(0.165)
Crisis*LA		0.219		-0.467***		-0.175		-0.327
		(0.273)		(0.148)		(0.131)		(0.204)
R*LA	0.087	0.086	-0.280	-0.243	-0.050	-0.097	-0.090	0.028
	(0.264)	(0.240)	(0.223)	(0.193)	(0.200)	(0.184)	(0.337)	(0.292)
Crisis*R*LA		-0.619*		0.034		0.058		-0.316
		(0.356)		(0.240)		(0.230)		(0.273)
NPL	-0.715	-0.846*	-1.504***	-1.507***	-0.813**	-0.938**	-1.371**	-1.338**
	(0.467)	(0.508)	(0.412)	(0.397)	(0.376)	(0.369)	(0.552)	(0.548)
Crisis*NPL		0.102		0.354		0.279		0.226
		(0.982)		(0.656)		(1.049)		(0.763)
R*NPL	-0.928	-0.551	0.107	0.122	-0.695	-0.293	-0.016	0.031
	(0.628)	(0.666)	(0.482)	(0.475)	(0.527)	(0.529)	(0.715)	(0.667)
Crisis*R*NPL		1.644		0.464		0.850		0.771
		(1.457)		(1.005)		(1.656)		(1.176)
LnA	0.010	-0.014	-0.052	-0.056**	0.016	0.002	-0.060	-0.070**
	(0.041)	(0.031)	(0.033)	(0.025)	(0.030)	(0.024)	(0.041)	(0.030)
Crisis*LnA		-0.013		-0.044***		-0.026**		-0.045**
		(0.015)		(0.014)		(0.012)		(0.018)
R*LnA	0.090**	0.052	0.044*	0.019	0.046	0.017	0.111**	0.080**
	(0.045)	(0.039)	(0.025)	(0.020)	(0.041)	(0.036)	(0.044)	(0.036)
Crisis*R*LnA		0.011		0.045**		0.032		0.031
		(0.031)		(0.020)		(0.020)		(0.026)
DA	-1.042***	-0.890***	-0.946***	-0.773***	-1.013***	-0.844***	-0.995***	-0.865***
	(0.156)	(0.117)	(0.129)	(0.099)	(0.122)	(0.090)	(0.165)	(0.126)
DIS	0.047	0.049	0.033	0.024	0.088	0.091	-0.011	0.004
	(0.093)	(0.100)	(0.075)	(0.063)	(0.075)	(0.063)	(0.090)	(0.080)
R	-0.683*	-0.505	-0.182	0.013	-0.132	-0.033	-0.920**	-0.750**
	(0.365)	(0.337)	(0.232)	(0.203)	(0.348)	(0.307)	(0.365)	(0.322)
Crisis		0.061		0.706***		0.319**		0.627***
		(0.219)		(0.158)		(0.126)		(0.215)
Crisis*R		0.327		-0.436*		-0.254		-0.009
		(0.302)		(0.227)		(0.206)		(0.278)
Time fixed effects	+	+	+	+	+	+	+	+
Region fixed effects	+	+	+	+	+	+	+	+
Constant	0.352	0.399*	0.417**	0.572***	0.187	0.220	0.734***	1.051***
	(0.257)	(0.208)	(0.203)	(0.169)	(0.186)	(0.154)	(0.271)	(0.212)
Observations	7,319	9,242	7,943	9,971	7,782	9,715	7,480	9,498
R^2_w	0.057	0.062	0.047	0.059	0.056	0.067	0.048	0.056
Number of banks	320	324	373	377	351	354	344	350

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table A 2. Components of *RIndex*: share of state enterprises and votes for Yeltsin

	State&MunFirms97				Vote4Yelt96			
	>Median		*<Median*		*>Median*		*<Median*	
Variable	*2001-2007*	*2001-2010*	*2001-2007*	*2001-2010*	*2001-2007*	*2001-2010*	*2001-2007*	*2001-2010*
$MD_{(t-1)}$	-0.021	-0.004	-0.035	-0.023	0.007	0.015	-0.066***	-0.044**
	(0.025)	(0.023)	(0.028)	(0.025)	(0.030)	(0.027)	(0.025)	(0.021)
CA	-0.064	-0.053	0.343	0.451*	0.090	0.212	0.274	0.307
	(0.154)	(0.142)	(0.268)	(0.241)	(0.184)	(0.171)	(0.313)	(0.275)
Crisis*CA		0.311		-1.029***		-0.872***		0.151
		(0.382)		(0.277)		(0.224)		(0.367)
R*CA	1.187**	0.930*	0.732	0.475	0.349	0.085	1.346**	1.025**
	(0.533)	(0.474)	(0.585)	(0.530)	(0.567)	(0.493)	(0.536)	(0.501)
Crisis*R*CA		-1.437**		-0.429		0.562		-1.833***
		(0.634)		(0.400)		(0.422)		(0.452)
LA	-0.075	-0.030	0.063	0.074	0.007	0.046	0.024	0.033
	(0.093)	(0.092)	(0.184)	(0.152)	(0.109)	(0.100)	(0.224)	(0.181)
Crisis*LA		-0.101		-0.222		-0.379***		-0.094
		(0.277)		(0.154)		(0.112)		(0.239)
R*LA	-0.333**	-0.278*	0.150	0.158	-0.369**	-0.392**	0.174	0.262
	(0.156)	(0.155)	(0.319)	(0.279)	(0.177)	(0.161)	(0.331)	(0.283)
Crisis*R*LA		0.225		-0.468**		0.273		-0.598*
		(0.348)		(0.229)		(0.208)		(0.307)
NPL	-0.659*	-0.694*	-1.779***	-1.906***	-1.512***	-1.567***	-0.574	-0.699
	(0.352)	(0.389)	(0.506)	(0.474)	(0.482)	(0.473)	(0.443)	(0.482)
Crisis*NPL		-0.290		1.319**		0.967		-0.675
		(0.907)		(0.663)		(0.783)		(0.872)
R*NPL	-0.276	0.038	-0.193	0.108	0.642	1.004	-1.156**	-0.889
	(0.792)	(0.790)	(0.596)	(0.552)	(0.942)	(1.006)	(0.539)	(0.566)
Crisis*R*NPL		1.358		0.004		-1.638		3.097**
		(1.470)		(1.095)		(1.323)		(1.292)
LnA	0.050*	0.012	-0.081**	-0.074**	-0.079***	-0.070***	0.046	0.009
	(0.030)	(0.025)	(0.040)	(0.030)	(0.030)	(0.023)	(0.042)	(0.032)
Crisis*LnA		-0.020		-0.041***		-0.046***		-0.011
		(0.015)		(0.015)		(0.011)		(0.020)
R*LnA	0.060	0.039	0.064	0.042	0.073	0.060	0.057	0.023
	(0.039)	(0.035)	(0.043)	(0.034)	(0.047)	(0.041)	(0.039)	(0.032)
Crisis*R*LnA		0.009		0.041		0.056***		-0.003
		(0.022)		(0.026)		(0.018)		(0.033)
DA	-0.978***	-0.839***	-1.056***	-0.862***	-0.965***	-0.812***	-1.031***	-0.875***
	(0.117)	(0.091)	(0.169)	(0.127)	(0.140)	(0.106)	(0.150)	(0.108)
DIS	0.054	0.110*	0.060	0.029	0.160**	0.130**	-0.084	-0.022
	(0.068)	(0.060)	(0.100)	(0.087)	(0.076)	(0.064)	(0.091)	(0.096)
R	-0.356	-0.273	-0.326	-0.259	-0.371	-0.310	-0.316	-0.195
	(0.317)	(0.297)	(0.426)	(0.326)	(0.375)	(0.343)	(0.343)	(0.289)
Crisis		0.076		0.667***		0.639***		
		(0.198)		(0.167)		(0.121)		
Crisis*R		0.010		-0.119		-0.666***		0.430
		(0.263)		(0.259)		(0.195)		(0.317)
Time fixed effects	+	+	+	+	+	+	+	+
Region fixed effects	+	+	+	+	+	+	+	+
Constant	-0.117	0.046	0.586**	0.806***	0.952***	0.823***	0.051	0.210
	(0.178)	(0.152)	(0.264)	(0.206)	(0.201)	(0.161)	(0.261)	(0.212)
Observations	7,527	9,450	7,735	9,763	8,058	10,114	7,204	9,099
R^2_w	0.100	0.097	0.051	0.062	0.053	0.070	0.051	0.054
Number of banks	339	346	355	360	377	381	315	320

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table A 3. Components of *RIndex*: ELF and migration

	ELF89				Migration86-90			
	>Median		*<Median*		*>Median*		*<Median*	
Variable	*2001-2007*	*2001-2010*	*2001-2007*	*2001-2010*	*2001-2007*	*2001-2010*	*2001-2007*	*2001-2010*
$MD_{(t-1)}$	-0.039	-0.018	-0.019	-0.010	-0.035	-0.018	-0.020	-0.005
	(0.025)	(0.022)	(0.031)	(0.028)	(0.026)	(0.023)	(0.033)	(0.029)
CA	-0.021	-0.085	0.411**	0.602***	0.096	0.244	0.264	0.202
	(0.268)	(0.243)	(0.200)	(0.166)	(0.214)	(0.204)	(0.288)	(0.252)
Crisis*CA		-0.171		-0.540		-0.361		0.014
		(0.336)		(0.340)		(0.368)		(0.312)
R*CA	0.534	0.382	1.348***	0.861*	1.044**	0.635	0.901	0.732
	(0.543)	(0.486)	(0.482)	(0.467)	(0.470)	(0.439)	(0.618)	(0.563)
Crisis*R*CA		-0.789		-1.071**		-0.963**		-1.238**
		(0.494)		(0.435)		(0.487)		(0.487)
LA	0.161	0.159	-0.153	-0.117	-0.121	-0.037	0.191	0.155
	(0.199)	(0.164)	(0.105)	(0.095)	(0.139)	(0.117)	(0.170)	(0.147)
Crisis*LA		-0.318		-0.159		0.242		-0.625***
		(0.220)		(0.126)		(0.233)		(0.185)
R*LA	-0.410*	-0.398*	0.154	0.223	0.150	0.045	-0.337	-0.205
	(0.249)	(0.221)	(0.245)	(0.222)	(0.241)	(0.214)	(0.291)	(0.263)
Crisis*R*LA		-0.150		-0.189		-0.589*		0.056
		(0.281)		(0.241)		(0.325)		(0.280)
NPL	-1.094**	-1.152**	-1.121**	-1.178***	-1.134**	-1.196**	-0.688	-0.768*
	(0.482)	(0.487)	(0.439)	(0.434)	(0.455)	(0.464)	(0.444)	(0.392)
Crisis*NPL		-0.193		0.398		0.665		-0.893
		(0.936)		(0.739)		(0.645)		(0.914)
R*NPL	-0.183	0.028	-0.688	-0.327	-0.351	-0.023	-0.901	-0.732
	(0.852)	(0.811)	(0.578)	(0.566)	(0.621)	(0.626)	(0.620)	(0.547)
Crisis*R*NPL		0.491		1.966		1.703		1.372
		(1.513)		(1.251)		(1.588)		(1.165)
LnA	-0.006	-0.041	-0.030	-0.024	-0.078**	-0.070**	0.056	0.020
	(0.043)	(0.029)	(0.035)	(0.027)	(0.039)	(0.030)	(0.036)	(0.027)
Crisis*LnA		-0.036**		-0.028**		-0.016		-0.047***
		(0.018)		(0.014)		(0.013)		(0.018)
R*LnA	0.085*	0.065*	0.076*	0.032	0.048	0.027	0.077*	0.046
	(0.043)	(0.038)	(0.040)	(0.032)	(0.037)	(0.030)	(0.044)	(0.038)
Crisis*R*LnA		0.026		0.027		0.009		0.032
		(0.025)		(0.026)		(0.024)		(0.029)
DA	-0.932***	-0.889***	-1.028***	-0.758***	-0.902***	-0.724***	-1.062***	-0.967***
	(0.136)	(0.105)	(0.152)	(0.111)	(0.151)	(0.111)	(0.143)	(0.109)
DIS	-0.082	-0.028	0.150	0.120	0.148*	0.126*	-0.088	-0.037
	(0.079)	(0.066)	(0.092)	(0.079)	(0.084)	(0.072)	(0.087)	(0.077)
R	-0.291	-0.288	-0.600*	-0.309	-0.394	-0.185	-0.325	-0.338
	(0.375)	(0.348)	(0.327)	(0.275)	(0.294)	(0.238)	(0.393)	(0.358)
Crisis		0.503**		0.370**		0.160		
		(0.210)		(0.163)		(0.182)		
Crisis*R		-0.110		-0.030		0.243		-0.167
		(0.279)		(0.248)		(0.260)		(0.297)
Time fixed effects	+	+	+	+	+	+	+	+
Region fixed effects	+	+	+	+	+	+	+	+
Constant	0.201	0.369*	0.802***	0.322*	0.663***	0.500**	-0.004	0.250
	(0.273)	(0.199)	(0.211)	(0.174)	(0.250)	(0.202)	(0.234)	(0.186)
Observations	7,333	9,249	7,929	9,964	7,601	9,550	7,043	8,874
R^2_w	0.074	0.076	0.069	0.078	0.053	0.059	0.046	0.056
Number of banks	334	339	357	359	353	360	314	316

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table A 4. Components of *RIndex*: urban population and middle class

	UrbanPop96				**MidClass89**			
	>Median		***<Median***		***>Median***		***<Median***	
Variable	*2001-2007*	*2001-2010*	*2001-2007*	*2001-2010*	*2001-2007*	*2001-2010*	*2001-2007*	*2001-2010*
$MD_{(t-1)}$	0.014	0.019	-0.076***	-0.048**	0.005	0.021	-0.048**	-0.034*
	(0.030)	(0.028)	(0.023)	(0.021)	(0.033)	(0.030)	(0.023)	(0.020)
CA	0.195	0.299*	0.176	0.190	0.182	0.342**	0.194	0.169
	(0.203)	(0.177)	(0.285)	(0.264)	(0.192)	(0.164)	(0.280)	(0.258)
Crisis*CA		-0.681***		0.080		-0.613***		-0.123
		(0.239)		(0.429)		(0.174)		(0.440)
R*CA	0.970	0.677	0.886*	0.630	0.945*	0.504	0.884	0.710
	(0.685)	(0.612)	(0.463)	(0.422)	(0.537)	(0.494)	(0.582)	(0.530)
Crisis*R*CA		0.172		-1.435***		-0.023		-1.197**
		(0.500)		(0.496)		(0.520)		(0.554)
LA	-0.092	-0.067	0.137	0.148	-0.128	-0.096	0.147	0.153
	(0.104)	(0.098)	(0.223)	(0.176)	(0.095)	(0.084)	(0.225)	(0.185)
Crisis*LA		-0.246**		-0.165		-0.177		-0.268
		(0.116)		(0.253)		(0.119)		(0.245)
R*LA	0.027	0.029	-0.266	-0.200	0.186	0.157	-0.319	-0.254
	(0.275)	(0.241)	(0.268)	(0.231)	(0.242)	(0.212)	(0.278)	(0.247)
Crisis*R*LA		-0.083		-0.244		-0.184		-0.231
		(0.225)		(0.317)		(0.250)		(0.310)
NPL	-1.657***	-1.618***	-0.694*	-0.830**	-1.322***	-1.303***	-0.940**	-1.061**
	(0.483)	(0.466)	(0.379)	(0.413)	(0.399)	(0.385)	(0.478)	(0.504)
Crisis*NPL		1.358		-0.737		0.744		-0.338
		(0.832)		(0.867)		(0.642)		(1.088)
R*NPL	-0.056	0.032	-0.803	-0.508	-0.598	-0.344	0.097	0.327
	(0.753)	(0.706)	(0.503)	(0.532)	(0.508)	(0.482)	(0.807)	(0.793)
Crisis*R*NPL		-0.949		2.986**		3.384		0.639
		(1.133)		(1.387)		(2.764)		(1.462)
LnA	-0.064*	-0.065**	0.038	0.002	-0.054*	-0.043*	0.025	-0.020
	(0.037)	(0.028)	(0.038)	(0.028)	(0.029)	(0.023)	(0.047)	(0.034)
Crisis*LnA		-0.037***		-0.012		-0.033**		-0.030*
		(0.013)		(0.019)		(0.015)		(0.018)
R*LnA	0.082	0.068	0.046	0.014	0.027	0.001	0.096**	0.072**
	(0.052)	(0.045)	(0.035)	(0.028)	(0.041)	(0.032)	(0.043)	(0.036)
Crisis*R*LnA		0.043**		0.012		0.046*		0.013
		(0.019)		(0.033)		(0.024)		(0.026)
	-0.935***	-0.775***	-1.053***	-0.886***	-0.828***	-0.666***	-1.214***	-1.059***
	(0.147)	(0.111)	(0.143)	(0.104)	(0.131)	(0.098)	(0.157)	(0.118)
DIS	0.154*	0.137*	-0.043	-0.041	0.110	0.154**	-0.024	0.044
	(0.092)	(0.075)	(0.078)	(0.086)	(0.078)	(0.065)	(0.084)	(0.106)
R	-0.442	-0.423	-0.278	-0.119	-0.172	-0.002	-0.504	-0.460
	(0.460)	(0.398)	(0.302)	(0.256)	(0.337)	(0.267)	(0.362)	(0.334)
Crisis		0.485***		0.217		0.395**		0.374
		(0.138)		(0.254)		(0.158)		(0.239)
Crisis*R		-0.387*		0.158		-0.351		0.073
		(0.226)		(0.328)		(0.271)		(0.280)
Time fixed effects	+	+	+	+	+	+	+	+
Region fixed effects	+	+	+	+	+	+	+	+
Constant	0.746***	0.733***	0.210	0.323*	0.624***	0.232	0.250	0.474**
	(0.236)	(0.183)	(0.230)	(0.182)	(0.187)	(0.156)	(0.292)	(0.227)
Observations	8,127	10,204	7,135	9,009	7,774	9,755	7,363	9,301
R^2_w	0.051	0.067	0.049	0.051	0.102	0.110	0.046	0.052
Number of banks	376	381	318	322	357	362	328	331

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table A 5. Market discipline and regional ties, broader definition

	Interest Rate				Deposit Growth			
	2001-2007		*2001-2010*		*2001-2007*		*2001-2010*	
Variables	I	II	III	IV	I	II	III	IV
MD(t-1)								
	(4)	(3)	(2)	(1)	(8)	(7)	(6)	(5)
CA	Wint_rate	Wint_rate	Wint_rate	Wint_rate	Wgr_rate	Wgr_rate	Wgr_rate	Wgr_rate
Crisis*CA	0.264***	0.264***	0.277***	0.277***	-0.031	-0.032	-0.016	-0.017
	(0.044)	(0.044)	(0.045)	(0.045)	(0.020)	(0.020)	(0.017)	(0.017)
R*CA	0.003	0.004	0.004	0.005	0.417***	0.246	0.405***	0.291
	(0.006)	(0.009)	(0.005)	(0.007)	(0.158)	(0.199)	(0.141)	(0.181)
Crisis*R*CA			-0.003	-0.005			-0.506**	-0.157
			(0.004)	(0.005)			(0.204)	(0.265)
LA		-0.002		-0.002		0.437		0.321
		(0.012)		(0.009)		(0.317)		(0.285)
Crisis*LA				0.005				-0.988***
				(0.009)				(0.341)
R*LA	-0.004	-0.003	-0.003	-0.002	-0.015	0.123	0.025	0.153
	(0.004)	(0.005)	(0.003)	(0.004)	(0.100)	(0.135)	(0.085)	(0.114)
Crisis*R*LA			-0.002	-0.007**			-0.284**	-0.272*
			(0.003)	(0.003)			(0.110)	(0.156)
NPL		-0.003		-0.003		-0.365**		-0.334**
		(0.006)		(0.005)		(0.167)		(0.144)
Crisis*NPL				0.014**				-0.063
				(0.005)				(0.196)
R*NPL	0.020	0.028	0.024	0.034**	-1.223***	-1.041**	-1.219***	-1.187***
	(0.018)	(0.020)	(0.016)	(0.017)	(0.260)	(0.449)	(0.254)	(0.458)
Crisis*R*NPL			-0.028*	-0.050***			0.575	0.076
			(0.017)	(0.018)			(0.456)	(0.763)
LnA		-0.012		-0.017		-0.314		-0.068
		(0.034)		(0.030)		(0.532)		(0.526)
Crisis*LnA				0.043				0.979
				(0.030)				(0.913)
R*LnA	0.000	0.000	0.000	0.000	-0.005	-0.017	-0.023	-0.032
	(0.001)	(0.001)	(0.001)	(0.001)	(0.026)	(0.028)	(0.019)	(0.022)
Crisis*R*LnA			0.001***	0.001***			-0.024***	-0.031**
			(0.000)	(0.000)			(0.009)	(0.012)
DA		-0.000		-0.000		0.033		0.020
		(0.001)		(0.001)		(0.027)		(0.022)
DIS				0.000				0.018
				(0.001)				(0.017)
R	-0.003	-0.003	-0.002	-0.002	-0.999***	-1.004***	-0.838***	-0.838***
	(0.004)	(0.004)	(0.003)	(0.003)	(0.106)	(0.105)	(0.078)	(0.078)
Crisis	0.000	0.000	-0.002	-0.000	0.018	0.019	0.439***	0.448***
	(0.003)	(0.003)	(0.004)	(0.004)	(0.060)	(0.061)	(0.111)	(0.151)
Crisis*R		0.001		0.002		0.124		0.056
		(0.009)		(0.007)		(0.240)		(0.196)
Time fixed effects								
Region fixed effects								
Constant				-0.005				0.010
				(0.006)				(0.181)
Observations	+	+	+	+	+	+	+	+
R^2_w	+	+	+	+	+	+	+	+
Number of banks	0.013*	0.030***	0.011**	0.011	0.427***	0.005	0.267**	0.236

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table A 6. Reliance on local authorities VS regionalism, broader definition

	GovTrust				RIndex			
	>Median		*<Median*		*>Median*		*<Median*	
Variables	*2001-2007*	*2001-2010*	*2001-2007*	*2001-2010*	*2001-2007*	*2001-2010*	*2001-2007*	*2001-2010*
$MD_{(t-1)}$	-0.033	-0.023	0.057	0.039	0.020	0.031	-0.071***	-0.050**
	(0.042)	(0.036)	(0.037)	(0.040)	(0.032)	(0.029)	(0.023)	(0.020)
CA	0.895	0.952*	0.128	0.380	0.228	0.308	0.306	0.308
	(0.563)	(0.509)	(0.261)	(0.267)	(0.240)	(0.207)	(0.313)	(0.288)
Crisis*CA		-0.758**		0.124		-0.526**		0.086
		(0.295)		(0.509)		(0.229)		(0.425)
R*CA	-0.303	-0.366	0.483	0.230	0.204	0.062	0.469	0.427
	(0.644)	(0.593)	(0.608)	(0.557)	(0.469)	(0.410)	(0.441)	(0.404)
Crisis*R*CA		-0.959		-1.302**		-0.186		-1.408***
		(0.878)		(0.637)		(0.426)		(0.510)
LA	0.488	0.383	-0.128	-0.050	0.043	0.076	0.223	0.223
	(0.361)	(0.300)	(0.214)	(0.212)	(0.121)	(0.108)	(0.252)	(0.208)
Crisis*LA		-0.379		0.111		-0.210**		-0.274
		(0.300)		(0.286)		(0.103)		(0.316)
R*LA	-0.603	-0.604*	-0.249	-0.288	-0.339*	-0.330**	-0.335	-0.278
	(0.372)	(0.312)	(0.351)	(0.323)	(0.187)	(0.166)	(0.272)	(0.232)
Crisis*R*LA		0.049		-0.152		0.006		-0.062
		(0.323)		(0.353)		(0.169)		(0.354)
NPL	-0.627	-1.022	-1.554**	-2.202***	-1.641***	-1.657***	-0.405	-0.665
	(1.611)	(1.453)	(0.751)	(0.720)	(0.511)	(0.512)	(0.673)	(0.727)
Crisis*NPL		0.706		1.403		1.327		-1.126
		(1.984)		(1.005)		(1.266)		(1.059)
R*NPL	-1.533	-1.037	0.084	0.958	0.281	0.451	-0.947	-0.616
	(1.797)	(1.611)	(0.870)	(0.834)	(0.832)	(0.794)	(0.732)	(0.777)
Crisis*R*NPL		-0.124		-0.172		-1.142		2.916**
		(2.167)		(1.297)		(1.458)		(1.345)
LnA	-0.064	-0.079	-0.074*	-0.043	-0.081**	-0.073***	0.048	0.009
	(0.075)	(0.057)	(0.044)	(0.037)	(0.032)	(0.025)	(0.042)	(0.034)
Crisis*LnA		-0.055***		0.006		-0.023*		-0.035
		(0.020)		(0.027)		(0.014)		(0.025)
R*LnA	0.043	0.041	-0.010	-0.022	0.047	0.033	0.001	-0.004
	(0.057)	(0.046)	(0.057)	(0.047)	(0.040)	(0.033)	(0.039)	(0.031)
Crisis*R*LnA		0.003		-0.002		0.012		0.025
		(0.034)		(0.036)		(0.019)		(0.030)
	-0.841***	-0.739***	-1.139***	-0.824***	-1.027***	-0.849***	-0.969***	-0.818***
	(0.231)	(0.159)	(0.200)	(0.156)	(0.141)	(0.103)	(0.151)	(0.113)
DIS	0.185	0.209**	0.299**	0.239**	0.235***	0.158**	-0.137	-0.091
	(0.128)	(0.099)	(0.143)	(0.121)	(0.079)	(0.063)	(0.092)	(0.082)
R	0.066	-0.093	0.440	0.467	0.167	0.052	0.069	0.107
	(0.533)	(0.447)	(0.462)	(0.396)	(0.367)	(0.297)	(0.286)	(0.244)
Crisis				-0.417		0.365***		0.441
				(0.323)		(0.129)		(0.312)
Crisis*R		0.066		0.365		-0.084		0.022
		(0.392)		(0.404)		(0.201)		(0.348)
Time fixed effects	+	+	+	+	+	+	+	+
Region fixed effects	+	+	+	+	+	+	+	+
Constant	0.427	0.574	0.343	0.117	0.728***	0.667***	0.076	0.230
	(0.486)	(0.393)	(0.354)	(0.309)	(0.194)	(0.167)	(0.278)	(0.235)
Observations	3,853	5,150	3,860	5,045	7,563	9,506	7,699	9,707
R^2_w	0.066	0.084	0.059	0.064	0.059	0.075	0.044	0.051
Number of banks	447	462	433	452	349	352	343	346

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table A 7. Market discipline and regional ties, fewer regions

	Interest Rate				Deposit Growth			
	2001-2007		*2001-2010*		*2001-2007*		*2001-2010*	
Variables	I	II	III	IV	I	II	III	IV
$MD_{(t-1)}$	0.286***	0.286***	0.298***	0.298***	-0.030	-0.031	-0.014	-0.015
	(0.049)	(0.049)	(0.050)	(0.050)	(0.020)	(0.020)	(0.017)	(0.017)
CA	0.005	0.005	0.005	0.005	0.407**	0.162	0.368**	0.207
	(0.007)	(0.008)	(0.005)	(0.006)	(0.170)	(0.181)	(0.150)	(0.163)
Crisis*CA			-0.002	-0.002			-0.478**	-0.299
			(0.004)	(0.005)			(0.213)	(0.254)
R*CA		-0.002		-0.002		1.008**		0.709*
		(0.014)		(0.011)		(0.411)		(0.370)
Crisis*R*CA				0.004				-0.946***
				(0.009)				(0.347)
LA	-0.004	-0.004	-0.004	-0.004	-0.018	-0.006	0.019	0.021
	(0.004)	(0.005)	(0.003)	(0.004)	(0.109)	(0.126)	(0.092)	(0.108)
Crisis*LA			-0.001	-0.004			-0.302**	-0.262*
			(0.003)	(0.004)			(0.122)	(0.151)
R*LA		0.002		0.003		-0.075		-0.057
		(0.006)		(0.005)		(0.203)		(0.178)
Crisis*R*LA				0.010*				-0.215
				(0.006)				(0.212)
NPL	0.024	0.023	0.026	0.026*	-1.107***	-0.942***	-1.128***	-1.049***
	(0.020)	(0.018)	(0.018)	(0.016)	(0.268)	(0.336)	(0.260)	(0.340)
Crisis*NPL			-0.030	-0.034*			0.462	0.035
			(0.018)	(0.018)			(0.503)	(0.662)
R*NPL		0.004		0.001		-0.543		-0.273
		(0.050)		(0.046)		(0.454)		(0.450)
Crisis*R*NPL				0.017				1.261
				(0.046)				(0.976)
LnA	0.000	0.000	0.000	0.000	0.017	0.005	-0.011	-0.018
	(0.001)	(0.001)	(0.001)	(0.001)	(0.027)	(0.028)	(0.020)	(0.021)
Crisis*LnA			0.001***	0.002***			-0.024**	-0.031**
			(0.000)	(0.000)			(0.010)	(0.012)
R*LnA		0.000		-0.000		0.065**		0.036
		(0.001)		(0.001)		(0.032)		(0.027)
Crisis*R*LnA				-0.001				0.031
				(0.001)				(0.019)
DA	-0.000	-0.000	-0.001	-0.001	-1.023***	-1.031***	-0.869***	-0.873***
	(0.004)	(0.004)	(0.003)	(0.003)	(0.107)	(0.104)	(0.079)	(0.077)
DIS	-0.000	-0.000	-0.004	-0.005	-0.020	-0.024	0.408***	0.444***
	(0.003)	(0.003)	(0.004)	(0.004)	(0.062)	(0.062)	(0.119)	(0.149)
R		-0.001		-0.000		-0.340		-0.231
		(0.009)		(0.007)		(0.265)		(0.232)
Crisis			0.000	0.000			0.000	0.000
			(0.000)	(0.000)			(0.000)	(0.000)
Crisis*R				0.002				-0.083
				(0.006)				(0.196)
Time fixed effects	+	+	+	+	+	+	+	+
Region fixed effects	+	+	+	+	+	+	+	+
Constant	0.015*	0.015*	0.013**	0.013**	0.104	0.156	0.231*	0.279**
	(0.008)	(0.008)	(0.006)	(0.006)	(0.163)	(0.175)	(0.129)	(0.140)
Observations	13,790	13,790	17,781	17,781	13,988	13,988	17,599	17,599
R^2_w	0.147	0.147	0.162	0.162	0.064	0.068	0.069	0.072
Number of banks	622	622	628	628	623	623	629	629

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table A 8. Reliance on local authorities VS regionalism, fewer regions

	GovTrust				RIndex			
	>Median		*<Median*		*>Median*		*<Median*	
Variables	2001-2007	2001-2010	2001-2007	2001-2010	2001-2007	2001-2010	2001-2007	2001-2010
MD(t-1)	-0.022	-0.012	0.062	0.034	0.048	0.057**	-0.070***	-0.049**
	(0.043)	(0.036)	(0.043)	(0.046)	(0.031)	(0.028)	(0.023)	(0.020)
CA	0.652	0.702	0.156	0.336	0.066	0.098	0.265	0.311
	(0.511)	(0.441)	(0.291)	(0.278)	(0.234)	(0.199)	(0.263)	(0.239)
Crisis*CA		-1.273**		-0.154		-0.429*		-0.257
		(0.508)		(0.417)		(0.230)		(0.379)
R*CA	0.746	0.214	0.683	0.274	0.745	0.543	1.022**	0.712
	(0.624)	(0.578)	(0.937)	(0.843)	(0.684)	(0.604)	(0.480)	(0.446)
Crisis*R*CA		0.979		-0.938		0.062		-1.189***
		(0.673)		(0.672)		(0.469)		(0.456)
LA	0.311	0.199	-0.310	-0.299	-0.083	-0.034	0.071	0.062
	(0.328)	(0.266)	(0.219)	(0.214)	(0.116)	(0.103)	(0.215)	(0.179)
Crisis*LA		-0.616**		0.224		-0.228**		-0.254
		(0.277)		(0.281)		(0.104)		(0.254)
R*LA	-0.308	-0.424	0.366	0.379	-0.140	-0.182	0.064	0.133
	(0.367)	(0.318)	(0.461)	(0.423)	(0.263)	(0.232)	(0.275)	(0.238)
Crisis*R*LA		0.493		-0.510		0.077		-0.339
		(0.327)		(0.445)		(0.237)		(0.308)
NPL	-0.975	-1.163	-1.736**	-2.344***	-1.333**	-1.366***	-0.758*	-0.869**
	(1.086)	(0.969)	(0.869)	(0.824)	(0.533)	(0.494)	(0.395)	(0.419)
Crisis*NPL		0.882		1.163		0.902		-0.467
		(1.673)		(1.012)		(1.263)		(0.780)
R*NPL	-0.938	-0.587	0.587	1.409	0.405	0.629	-0.807	-0.555
	(1.532)	(1.413)	(1.041)	(0.981)	(1.080)	(1.048)	(0.490)	(0.510)
Crisis*R*NPL		-1.091		0.707		-1.258		2.413*
		(1.976)		(1.807)		(1.718)		(1.329)
LnA	-0.028	-0.044	-0.063	-0.053	-0.034	-0.046*	0.034	0.004
	(0.075)	(0.051)	(0.053)	(0.043)	(0.031)	(0.023)	(0.041)	(0.031)
Crisis*LnA		-0.069***		0.009		-0.023*		-0.040*
		(0.022)		(0.026)		(0.013)		(0.021)
R*LnA	0.053	0.037	0.078	0.047	0.060	0.048	0.059	0.026
	(0.066)	(0.053)	(0.080)	(0.065)	(0.053)	(0.045)	(0.039)	(0.032)
Crisis*R*LnA		0.069**		0.005		0.028		0.035
		(0.028)		(0.057)		(0.020)		(0.030)
	-0.920***	-0.819***	-1.159***	-0.895***	-1.061***	-0.908***	-0.978***	-0.826***
	(0.241)	(0.165)	(0.211)	(0.163)	(0.130)	(0.097)	(0.153)	(0.115)
DIS	0.147	0.173*	0.219	0.229*	0.169**	0.165**	-0.141	-0.098
	(0.132)	(0.096)	(0.147)	(0.124)	(0.081)	(0.066)	(0.090)	(0.080)
R	-0.344	-0.266	-0.122	0.069	-0.150	-0.211	-0.527*	-0.284
	(0.487)	(0.445)	(0.477)	(0.414)	(0.470)	(0.401)	(0.300)	(0.264)
Crisis		0.982***		-0.248				0.541**
		(0.267)		(0.352)				(0.256)
Crisis*R		-0.875***		0.278		-0.280		-0.052
		(0.303)		(0.500)		(0.218)		(0.318)
Time fixed effects	+	+	+	+	+	+	+	+
Region fixed effects	+	+	+	+	+	+	+	+
Constant	0.268	0.394	0.614	0.382	0.480**	0.513***	0.239	0.340*
	(0.482)	(0.348)	(0.383)	(0.318)	(0.192)	(0.155)	(0.259)	(0.205)
Observations	3,347	4,523	3,516	4,491	6,235	7,822	7,699	9,707
R^2_w	0.062	0.074	0.062	0.066	0.058	0.075	0.045	0.049
Number of banks	382	396	367	384	282	286	343	346

Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

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