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Politics, banks, and sub-sovereign debt: unholy trinity or divine coincidence?

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Abstract

We exploit election-driven turnover in State and local governments in Germany to study how banks adjust their securities portfolios in response to the loss of political connections. We find that local savings banks, which are owned by their host county and supervised by local politicians, increase significantly their holdings of home-State sovereign bonds when the local government and the State government are dominated by different political parties. Banks' holdings of other securities, like federal bonds, bonds issued by other States, or stocks, are not affected by election outcomes. We argue that banks use sub-sovereign bond purchases to gain access to politically distant government authorities.

JEL classification: G21, H63, P16.

Keywords: political connections; government-owned banks; sub-sovereign debt.

Non-technical summary

Political connections provide numerous benefits to firms, ranging from improved access to credit, to higher stock returns, to the ability to influence legislation, to a higher likelihood of receiving support when in distress. Such relationships are particularly valuable to banks, whom the government as a rule simultaneously regulates, provides a financial backstop to, and expects to serve as a source of financing. Consequently, banks typically spend a lot of resources trying to influence government actions by employing influential politicians to the board and by lobbying elected officials.

In this paper, we suggest a novel channel through which banks can bridge the political distance to state authorities: the purchase of sub-sovereign debt. Because governments can (and do) issue new debt on a regular basis, also through a private placement, banks' holdings of such debt can be adjusted quickly upwards. We argue that this channel can be activated when politically connected local banks lose their access to politicians at higher levels of government because of democratic elections. The cost to banks of losing such access can include, for example, a less beneficial treatment in times of stress if state authorities can influence bailout decisions, or less direct access to state authorities that are involved in the supervision of local banks. In this paper, we hypothesize that banks that lost their communication channel along party lines to political authorities after elections, may be using purchases of sub-sovereign bonds to re-gain "front-row access" to relevant politicians.

To identify this mechanism, we construct an empirical set-up which exploits the unique dual institutional setting of the German electoral system and of the German banking system. There are 16 states and 438 counties in Germany, with two major parties—the CDU (Christian Democrats) and the SPD (Social Democrats)—active at all levels of regional politics. Either one is almost always at the head of coalitions emerging after state parliament elections. Likewise, they are almost always the dominant party emerging in county-level elections. State parliament and county-level elections of mayors and/or councils take place every four to six years, but at different points in time. Election dates are typically pre-determined, thus leading to a staggered political alignment between states and the counties within states. All 16 states issue their own government bonds. Crucially, local (county-level or city-level) politicians are appointed to the supervisory board of local savings banks. Hence, the staggered and predetermined timing of state and municipal elections ensures that political (mis)alignment between a sovereign-bond-issuing state government and the board of a

sub-sovereign-bond-purchasing local-government-owned bank emerges exogenously from the point of view of both the state government and the individual bank.

Exploiting our identification strategy for a total of 32 State elections and 600 county elections between 2005 and 2013, we find that political misalignment is strongly and significantly associated with an increased propensity by local state-owned savings banks to increase their holdings of state-issued sovereign bonds. Numerically, an election that causes a state-owned bank to switch its political status form aligned to misaligned results in an increase in that bank's holdings of debt issued by the respective state government of 12 percent of a sample-wide standard deviation, relative to a similar private bank. This result is robust to measuring exposure to state sovereign debt in nominal or book value as well as in relation to total assets, the bank's portfolio, or aggregate fixed income securities within that portfolio. Importantly, our results are also robust to the inclusion of bank as well as county×quarter fixed effects.

Three further results point to the fact that we have indeed identified a political mechanism of sub-sovereign bond holdings. First, we find that after the loss of political connections, state-owned banks are also more likely to increase government lending. Second, we find that our results are mostly driven by political misalignment produced by state elections. A possible narrative in line with this statistical regularity is that incumbent local politicians on the supervisory boards of state-owned banks aim to bridge the loss of political alignment with state authorities by increasing own-state debt holdings to reduce political distance. Third, we find that politically misaligned banks that are distressed receive significantly smaller bailout support relative to risk-weighted assets compared to distressed banks that are domiciled in aligned counties.

The robust empirical regularity that we have uncovered can be worrisome to policy makers for at least two reason. For one, higher balance sheet exposures to the sovereign can exacerbate the bank-sovereign loop in times of heightened sovereign stress, as the recent eurozone sovereign debt crisis demonstrated. Second, investing in public debt can crowd out private investment, with negative implications for the local economy. Our paper thus points to additional potential economic costs associated with the tendency of banks to build political relationships with their sovereign.

1 Introduction

Political connections are valuable to firms. The empirical literature has documented numerous benefits of political ties, such as preferential access to credit (Cull and Xu, 2005; Johnson and Mitton, 2003; Khwaja and Mian, 2005), higher stock returns (Claessens, Feijen, and Laeven, 2008; Faccio, 2006; Goldman, Rocholl, and So, 2009), the ability to influence legislation (Kroszner and Strahan, 1999; Mian, Sufi, and Trebbi, 2010), favorable regulatory treatment (Braun and Raddatz, 2010), and more generous government support when in distress (Faccio, Masulis, and McConnell, 2006; Duchin and Sosyura, 2012). At the same time, while privately beneficial to firms, close relationships with politicians can be associated with substantial economic distortions (Shleifer and Vishny, 1994; Cingano and Pinotti, 2013). This concern is particularly applicable to banks, which the government simultaneously regulates and provides with a financial backstop. Hence, it is important to document the mechanisms how firms in general, and banks in particular, build political connections to understand both the private benefits and the social costs of such connections.

It is already well-established that banks invest substantial resources in building political connections. But evidence is restricted to campaign contributions, lobbying, and direct lending (e.g., Mian, Sufi, and Trebbi, 2010; Lambert, 2015; Gao, Ru, and Tang, 2016). In this paper, we show that a link exists between the intensity of banks' political connections and the composition of their securities portfolios. We demonstrate a robust new fact: after a loss of political connections due to regional elections, local government-owned banks in Germany increase substantially their holdings of bonds issued by their home-State government. The same election event does not lead the same government-owned banks to adjust their holdings of any other broad class of securities. Our results thus suggest that the electoral cycle has a material effect on the type of securities banks choose to hold in their portfolios, and in particular on the home bias in their sub-sovereign bond holdings.

Identifying a politically-motivated portfolio reallocation is challenging because banks can adjust their securities portfolios for a number of other reasons, such as risk shifting, liquidity management, or "moral suasion".[1] We exploit the unique dual institutional setting of the German electoral system and of the German banking system. To start with, Germany is a federation which comprises 16 States (Bundesländer) and 438 counties (Kreise and kreisfreie Städte). States and counties hold

[1]For a detailed discussion of these mechanisms, see Broner, Erce, Martin, and Ventura (2014) and Gennaioli, Martin, and Rossi (2014a), among others.

regular elections to determine the political composition of State parliaments and of the local city councils, respectively. Elections for State parliaments and for local councils take place every four to six years, but typically at different points in time, thus leading to staggered changes in the composition of governing coalitions in States and in counties within States. There are two major parties in Germany, the CDU (Christian Democrats) and the SPD (Social Democrats) that are active at all levels of regional politics. With few exceptions, one of the two parties is at the head of a governing coalition emerging at the State level (after State parliamentary elections) and at the local level (after county-level elections). Crucially for the purpose of our paper, States in Germany have independent fiscal authority, and all 16 German States issue their own sub-sovereign bonds.

The German banking system, in turn, comprises private banks, cooperatives, and government-owned banks. The two types of the latter are local savings banks (Sparkassen)—typically one per county—and nine head institutions (Landesbanken), which operate at the State level. Head institutions serve as clearing houses and capital market gateways for the local savings banks associated with them. Taken together, government-owned banks account for around a third of the German banking market (GCEA, 2014) and are therefore an important player in the banking system. Cooperative banks resemble Credit Unions in the United States and account for another 14% of the market. Savings banks and cooperatives are similar in that—unlike private banks—they have no profit maximizing objectives. Instead their mandate is to provide access to financial services to the community where they are domiciled. However, they differ substantially in that cooperatives are free from direct political influence arising from government ownership and supervision.

Specifically, each state's savings bank law (Sparkassengesetze) features two provisions that are crucial for our purposes. First, the local (county- or city-level) senior politicians are appointed as the chairman to the supervisory board (Verwaltungsrat) of local savings banks. As such, they can influence bank managers considerably. Second, savings bank laws provide the statutory source that the legal supervision of each state's entire savings bank sector rests with a ministry at the state level, usually the ministry of finance or economic affairs. This institutional set-up gives rise to political ties that do not exist for cooperative banks. And the case of Stadtsparkasse Düsseldorf is an instructive piece of anecdotal evidence that county and state politics do interact—and at times interfere—with the management conduct of savings banks (Reisener, 2012; Mussler, 2016).[2]

[2]This savings bank with 11 billion euro in total assets realized a substantial profit on the order of 140 million euro

Importantly for our purposes, political ties from either channel are determined exogenously from the perspective of the local savings bank. Local politicians chair supervisory boards *ex officio* after winning a local election, but also lose this lever of affecting savings banks' managers once their party is no longer in power locally. Likewise, the political orientation of the legal supervisor changes once a new cabinet is formed after State parliament elections, which entails a change of guard at the ministry in charge of supervision. Thus, the staggered timing of State and county elections ensures that political alignment or misalignment between a State government and the board of a local government-owned bank emerges exogenously from the point of view of both the State government and the individual bank.

Our identification strategy exploits this staggered timing of State and county elections to study how local government-owned banks adjust their securities portfolios after becoming politically misaligned from the State government. The control group are cooperative banks for which election results are irrelevant because neither are local politicians required by law to serve on supervisory boards nor do state politicians supervise cooperatives. We define "political misalignment" as a situation where the majority of votes at the local level are cast for a party that is different from the one dominating the governing coalition at the State level. With this identification strategy in hand, we study securities portfolio allocation by 455 government-owned banks and 1,227 cooperatives, taking advantage of a total of 32 State elections and 600 county elections between 2005 and 2013.

Our main finding is that political misalignment is positively and significantly associated with the propensity of local government-owned banks to hold sovereign bonds issued by their home State. Numerically, an election that causes a local government-owned bank to switch its political status from aligned to misaligned results in an increase in that same bank's holdings of home-State debt of up to 42% of the sample mean exposure (corresponding to an increase of around 1.05 million euro), relative to a similar cooperative bank in the same county. This effect is mostly generated by political misalignment resulting from State rather than county elections. Apparently, the loss

in 2014. The annual financial report proposed by the CEO Arndt Hallmann to the supervisory board for approval retained almost the entire profit as reserves for general banking risks according to §340g of the German Commercial Code (HGB) although the bank was very well capitalized. The majority of the supervisory board agreed and approved the annual report, in particular the representatives of the conservative political spectrum. The chair of the supervisory board, the mayor of Düsseldorf Thomas Geisel from SPD, however, challenged the vote and demanded a dividend for the city. The confrontation escalated and was ultimately resolved by the ruling of the State Ministry of Finance in its capacity as legal supervisor to revoke the approval of the annual financial accounts. At the time, the ministry was headed by Norbert-Walter Borjans from SPD.

of political proximity between local politicians on the boards of local government-owned banks to home-State authorities induces their banks to hold more home-State debt. At the same time, we find that local government-owned banks in politically misaligned counties are not more likely to increase their holdings of any other type of securities, such as German federal bonds, bonds issued by other German States, or a broad class or traded stocks.

The main result obtains when we include bank fixed effects, which control for unobservable time-invariant motives to hold a particular bond class. It also remains robust to including County×Quarter fixed effects in order to wash out all unobservable variation in home-State bond holdings that is common to all banks in the same county at the same point in time. It continues to obtain when we only compare local savings banks in politically aligned versus misaligned localities. Thereby, we account for the possibility that local cooperatives are not an appropriate control group. It also remains intact when we compare individual banks' bond holdings across 187 contiguous counties for instances when one State-county misalignment occurs at a different time than in a neighboring county.[3] Importantly, the statistical association between political misalignment and bond buying disappears in placebo tests where we move the timing of State elections by 1, 2, or 3 years around the true election date.

Our empirical strategy allows us to cleanly eliminate all other alternative mechanisms that could be leading banks to increase their sub-sovereign bond holdings, by making sure that they are either unlikely or that they yield the opposite prediction. In particular, our results cannot be driven by regulatory compliance or by liquidity management considerations as these would lead banks to pile up on federal German bonds, which are fully risk-free, perfectly liquid, and widely available. Our results cannot be driven by asset substitution (risk shifting) either because all German states were very highly rated during our sample period. Finally, our results are inconsistent with the type of "moral suasion" that apparently took place during the euro-area sovereign debt crisis (e.g., Ongena, Popov, and van Horen, 2016). This mechanism would lead politically *aligned* banks—i.e., local government-owned banks on which the home-State government can exert pressure via the channel of political party affiliation—to increase their holdings of home-State debt. The totality of our results thus suggests that we capture a genuine electoral effect whereby local government-owned

[3]These counties are adjacent neighbors and thus similar in observable and unobservable conditions. Therefore, we can relate election outcomes and bank bond buying while holding local unobservable background forces constant.

banks have an incentive to increase their holdings of home-State bonds after becoming disconnected from the home-State government along political party lines.

The novel fact we uncover raises two questions. First, what are the costs to local German savings banks of losing their political connections with the State government? One regularity emerging from our data is that politically unconnected savings banks receive less capital support when in distress relative to politically connected savings banks. This finding is commensurate with the institutional design of savings bank insurance in Germany, which is organized by savings bank associations that operate safety nets at the State level. These associations operate guarantee funds where member banks in the association provide support if another member bank is in distress. The bodies that govern regional savings bank associations include usually representatives from the individual banks—especially the local politician serving as the chair of the supervisory board of member banks—and the president of the association. This position is often politically appointed according to observers (see, e.g., Schieritz and Storn, 2012) and anecdotal evidence.[4] Therefore, it does not seem impossible that the proximity of State and county politicians co-determine the terms of bailout decisions of individual savings banks through these safety nets just like this interaction of local and State politics affected other business choices, such as profit distribution and lending. Not that we do not claim an influence exerted by state politicians *ex officio* as is the case with local politicians that are mandated *de jure* to chair supervisory boards. Instead we limit ourselves to documenting robust empirical evidence regarding the fact that the capital support routed by the association are more generous when the involved bank is politically aligned according to our definition. In fact, this argument relates to prior studies which have found that politically connected firms are more likely to be bailed out when in distress (Faccio, Masulis, and McConnell, 2006).

The second question is, how larger holdings of home-State bonds compensate for the loss of political connections along party lines? State debt in Germany is peculiar. Unlike federal debt, which is placed by public auctions, it is typically placed privately. Indeed, we have inquired with the fiscal authorities in the individual German States and they have confirmed to us that a private placement is the preferred arrangement. In practice this means that the Ministry of Finance of a

[4]Related to the aforementioned case, note for example that the acting president of the association of which the Stadtsparkasse Düsseldorf is a member (Rheinischer Sparkassen- und Giroverband)—Michael Breuer—is a former CDU member of parliament and minister for European and Federal Affairs of the conservative-led government that was in power until July 2010. He resigned as a minister and member of parliament in the course of 2007 and was elected president of the association in January 2008.

State and a financial institution agree on the amount and the price of a debt placement without making the terms of the transaction publicly known. Given this arrangement, the first possibility is that such private placements involve advantageous terms (e.g., below-market prices), constituting a political favor to the State government on behalf of the individual bank. However, the amounts involved are small. The difference in home-State bond holdings between a misaligned and a similar aligned bank is between 400,000 and 1 million euro. Thus, it is unlikely that the State government extracts sufficient gains from this transaction for it to constitute a political favor that needs to be returned in the future.

Alternatively, such financial transactions may simply buy banks "face time" with the politicians in power. As such, these transaction could fulfill an economic function akin to lobbying to the extent that Bertrand, Bombardini, and Trebbi (2014) have shown that the main added value of lobbyists is their access to individual politicians, rather than their expertise in the political process. Put differently, front-row access to politicians is crucial to private businesses and the case of Stadtsparkasse Düsseldorf illustrates that gaining access to State politicians is probably fairly frictionless, perhaps even automatic, if both agents are from the same party. But presenting a case can be difficult for a local savings bank if it is not politically aligned, especially when the two main alternative channels—political lobbying and private contributions—are severely limited, as is the case in Germany. Therefore, access to the relevant politicians obtained so to speak as a by-product during a financial operation that allows State politicians and local bankers to meet—such as purchasing State bonds in a private placement—may provide banks with exactly the kind of access they need.

Our paper adds to the empirical literature on the impact of political factors on bank performance and business decisions. For example, Agrawal and Knoeber (2001), La Porta, Lopes-de-Silanez, and Shleifer (2002), Sapienza (2004), Dinc (2005), Khwaja and Mian (2005), Faccio (2006), Faccio, Masulis, and McConnell (2006), Leuz and Oberholzer-Gee (2006), Micco, Panizza, and Yanez (2007), Claessens, Feijen, and Laeven (2008), Li, Meng, Wang, and Zhou (2008), Goldman, Rocholl, and So (2009), Mian, Sufi, and Trebbi (2010), Shen and Lin (2012), Carvalho (2014), Schoors and Weill (2015), and Englmaier and Stowasser (2017) exploit variation across countries, or across regions within a country, and show that government ownership reduces bank profitability and that political favors arise through government banks, either in the form of cheaper lending in politically

preferred regions or increased lending in election years. Another strand of this literature deals with political determinants of bank behavior that are unrelated to direct ownership. For example, Kroszner and Strahan (1999) document that special interests affected the timing of the removal of barriers to entry in the U.S. banking industry. Agarwal, Amromin, Ben-David, and Dinc (2012) show that during the recent financial crisis, banks delayed foreclosures on mortgages located in U.S. districts whose representatives in Congress were members of the Financial Services Committee. In addition, a number of papers provide evidence that politicians in power routinely delay bad news about problems in the banking sector, both in developing and in industrialized countries (e.g., Brown and Dinc, 2005; Imai, 2009; Liu and Ngo, 2014). Our paper adds to this literature by demonstrating that banks have an incentive to load up on sovereign debt in order to compensate for the loss of a direct political link to the fiscal authority responsible for bailing out banks that are close to default. Moreover, to the best of our knowledge, ours is the first paper to investigate local savings banks' political incentives in the case of *sub-sovereign* debt.[5]

Our paper is also related to a large literature on the home bias in portfolio allocation. The presence of home bias has been documented across countries with diverse institutional environments (Chan, Covrig, and Ng, 2005), within countries because investors exhibit a preference for domestic assets (Kang and Stulz, 1997; Coval and Moskowitz, 1999; 2001; Laeven and Giannetti, 2012; De Haas and van Horen, 2013), and for different assets including bonds (Butler, 2008), and, in particular, sovereign bonds (Broner, Erce, Martin, and Ventura, 2014; Horvath, Huizinga, and Ioannidou, 2015). While the presence of home bias in capital allocation has been well documented in the literature, we are the first to show that home bias in bond holdings varies over time depending on how elections affect creditors' access to the center of political power.

Finally, our paper complements a growing empirical literature that studies how bank holdings of sovereign bonds adjust in times of fiscal stress, and how the real sector is affected by this adjustment.[6] Studying banks active in a large number of countries, Gennaioli, Martin, and Rossi

[5] See Ohls (2017) for an analysis of the determinants why Landesbanken hold (sub-)sovereign debt.

[6] A number of recent theory papers have modeled the sovereign-bank "doom loop", arguing that domestic banks have an incentive to purchase domestic sovereign bonds in times of fiscal stress because they expect to be bailed out, partially or fully, in the event of a sovereign default (e.g., Acharya, Drechsler, and Schnabl; 2014; Broner, Erce, Martin, and Ventura, 2014; Cooper and Nikolov, 2013; Crosignani, 2015; Farhi and Tirole, 2014; and Uhlig, 2013). Alternative theoretical mechanisms for the propensity of domestic banks to hold domestic sovereign debt are proposed in Gennaioli, Martin, and Rossi (2014a) where domestic banks choose to hold domestic sovereign bonds for liquidity reasons, and in Acharya and Rajan (2013) where banks choose to increase their holdings of domestic public debt in the presence of financial repression in the form of a tax on real investment.

(2014b) find that during sovereign defaults banks increase their holdings of sovereign debt and subsequently tend to lower their lending. Focusing on the European sovereign debt crisis, Popov and van Horen (2015) show that non-GIIPS banks exposed to impaired sovereign debt contracted their (cross-border) lending. De Marco (2014) finds that both GIIPS and non-GIIPS banks exposed to peripheral sovereign debt, contracted their lending more. Acharya, Eisert, Eufinger, and Hirsch (2014) find that banks' high balance sheet exposures to impaired sovereign debt had a negative effect on firm growth. Several papers in this literature have studied the different channels that can explain why banks increase their holdings of sovereign bonds in times of financial or fiscal stress. Using bank-level data on banks' borrowing from the European Central Bank (ECB), Drechsler, Drechsel, Marques-Ibanez, and Schnabl (2016) find that during the European sovereign debt crisis, banks from both core and periphery countries engaged in risk-shifting, with weakly capitalized banks borrowing more and pledging riskier collateral to the ECB. Furthermore, Acharya and Steffen (2015) show that GIIPS and in particular non-GIIPS banks engaged in carry-trading by funding themselves short-term in wholesale markets to buy sovereign bonds issued by countries under fiscal stress. They argue that this behavior can be explained by regulatory capital arbitrage, risk-shifting, and "moral suasion" incentives. Buch, Koetter, and Ohls (2016) show that high-risk sovereign debt exposures increase the risk of commercial banks in Germany. Relative to these papers, we exploit a set-up where sovereign debt is risk-free, we focus on a political-incentives-based mechanism relating governments and banks' securities portfolios, and we look at sub-sovereign rather than sovereign debt.

The remainder of the paper is organized as follows. Section 2 describes the data. Section 3 presents the empirical methodology. Section 4 provides the main test of the link between political connections (or the lack thereof) and sub-sovereign bond holdings, alongside an exhaustive battery of robustness tests. In Section 5, we investigate the benefits of State bond purchases. Section 6 concludes.

2 Data: Sources and patterns

2.1 Elections and political power

Data on the outcomes of State parliament election results are readily available from the German Federal Statistical Office. Figure 1 illustrates the staggered timing of both State- and county-level elections per Bundesland. The figure also indicates color-wise the lead party of the emerging coalition forming the states' governments, as well as the party with the most cumulative votes during county elections. For each State, the upper band depicts the occurrence of a State parliament election, which is held every four to five years, yet at different points in time across States. We show the name or names of the parties winning the election and forming a coalition. The first abbreviation and the color of the band indicates the senior partner in these coalitions. CDU are the Christian Democratic Union, a conservative party. SPD abbreviates the Social Democratic Party. The Green party signature mark is the representation of ecological interests. Other parties are the liberal party FDP (Free Democratic Party), the socialist party Die Linke, and other regional interest groups that are occasional part of coalitions at the state level.[7]

The lower band depicts, in turn, for each state the occurrence of county-level elections. These elections are held usually in each county within each state at the same time to determine the local council of politicians. Oftentimes, these elections are also held together with the election of the mayor of larger cities. We collect data on the votes cast per party from State Statistical Offices for 438 counties and show the party with the most cumulative votes in Figure 1. Given the number of counties and local elections per State during our sample period, we observe a total of 600 county elections.[8]

Figure 2 shows the corresponding map of German counties for each year between 2004 and 2013. It illustrates graphically the change in the distribution of aligned and misaligned counties, where dark-colored counties are those where the majority of votes at the county level are cast for the same party that is also in power at the State level, and light-colored counties are those where

[7]Such as, for example, the Südschleswigsche Wählerverband (SSW) in the northern state of Schleswig-Holstein who represent the interests of the Danish minority on German territory. Note that the CSU, the Christian Socialist Union, is the sister party of the CDU and only active in the state of Bavaria. Together, CDU and CSU form one (conservative) faction in the federal parliament (Bundestag).

[8]For example, there are 26 counties in Hesse, and 2 local elections between 2005 and 2013 (one in 2006 and one in 2011) for a total of 52 county elections. See Figure 1 and Table 1 for details.

the party receiving most votes at the county level is a different party than the one in power at the State level.[9]

Consider as an example the case of North Rhine-Westphalia, the most populous State in Germany, situated in the mid-West of the country. Figure 1 shows that the State parliament elections in 2005 were won by the CDU, which formed a coalition with the FDP. In county elections in 2009, the CDU also received consistently the most cumulative votes, but less so than during the previous county elections, possibly indicating increasing disagreement among local citizens with State politics conducted by the conservative cabinet led by Jürgen Rüttgers from the CDU. Accordingly, the map in Figure 2 shows that during the county elections of 2009, the number of misaligned counties increased. The subsequent State parliament elections in 2010 were won by the SPD, which formed a coalition with the Green party. The State election of 2010 then illustrates that the switch of State government leadership from CDU to SPD renders formerly misaligned, SPD-run counties aligned, as shown in dark blue in the map of 2010, while formerly aligned, CDU-run counties become misaligned, as shown in light blue in the map of 2010.

Table 1 shows the number of counties per state, together with the share of misaligned counties, in each year between 2004 and 2013. The distribution of misaligned counties varies considerably across both time and geographical regions, from a low of 0 percent (e.g., Schleswig-Holstein in 2006 and 2007) to a high of 100 percent (e.g., Hessen in 2008). On average, 34% of counties are misaligned throughout the sample period. This high degree of regional variation bodes well for the identification of the effect of political misalignment on state bond buying by local banks.[10]

Table 2 confirms that the distribution of aligned and misaligned regional politics is mirrored at the bank level. The table distinguishes between government-owned savings banks and our control group of local cooperatives.[11] Pooled across all quarters between q4:2005 and q4:2013, the share of savings banks domiciled in aligned counties is 41.2% compared to 37.4% among local cooperative banks. As shown by the bank-quarter observations aggregated per year, this share is increasing

[9] In 2010, the Green party won the largest share of the vote in the State of Baden-Württemberg, and formed a ruling coalition with the CDU. Because there are is not a single county in Baden-Württemberg that is dominated by the Green party, we classify CDU-dominated counties as aligned, and SPD-dominated ones as misaligned after 2010.

[10] We acknowledge the fact that the three city-states in Germany—Berlin, Bremen, and Hamburg—cannot be misaligned by construction (there is only one county in Berlin and in Hamburg and two in Bremen). We address this point in a robustness test shown in Appendix Table 6.

[11] Note that we only consider regional savings and cooperative banks given our focus on the political distance between county and State politics and exclude central head institutions of either banking sector.

over time, possibly reflecting a more synchronized voting behavior in State and county elections that are increasingly often held at the same time towards the end of our sample period (see Figure 1).

2.2 Banks' securities portfolios

To gauge the propensity of local savings banks to adjust their securities portfolios around local elections, we first need to observe the detailed bond holdings of banks. To this end, we obtain from Bloomberg all active and inactive fixed income securities issued by German government entities. Since q4:2005, the quarter in which the security holding statistics of individual banks become available, there have been 3,021 such securities, of which 793 are federal bonds (Bunds), 5 have been bonds issued by one or more cities, and the majority of 2,223 bonds have been issued by State governments.

We combine this information with data from the security holdings statistics (SHS) of Deutsche Bundesbank ("Depotstatistik"), which provides ISIN numbers, volumes, market and notional values per security on a quarterly basis. The SHS data includes more than 5,000 government debt securities.[12] Therefore, contrary to previously employed sources of sovereign exposures at the bank- or country-level, such as the European Banking Authority and the Bank for International Settlements, we consider the security holdings of all universal banks operating in Germany between 2005:Q4 and 2013:Q4.

The upper panel in Table 3 shows summary statistics on the various types of sovereign bonds as shares of the bank's total assets. Overall, the share of home-State debt among German banks is very small. Relative to gross total assets (TA), both the average savings and the average cooperative bank hold very little sub-sovereign debt from their home State, namely 11 and 6 basis points, respectively. This small share reflects in part the lending rather than the investing focus of these banks' investment strategies. Also relative to the entire bond portfolio, these shares remain small, at 63 basis points on average amongst savings banks and 31 basis points for cooperative. These amounts are comparable to the banks' holdings of Federal debt (17 basis points in the case of savings banks, 13 basis points in the case of cooperatives). Holdings of debt issued by other German States

[12] Note that the term "book value" used in the SHS database reflects the value according to German accounting rules in the hold-to-maturity portfolio rather than mark-to-market valuation of financial securities. A detailed description of the SHS database is Amann, Baltzer, and Schrape (2012).

are comparably larger (31 basis points in the case of savings banks, 23 basis points in the case of cooperatives), suggesting that banks hold a wide variety of sovereign and sub-sovereign bonds on their balance sheets. Finally, banks hold substantially more traded stocks, to the tune of 1.63% of their total assets in the case of savings banks.[13]

Two aspects are important to note here. Given the depth of the market for (risk-free) federal German debt, one might wonder why local banks are holding on to State debt to begin with. State debt is occasionally rated slightly worse than AAA or not at all (see Appendix Table 2) while not offering significantly higher coupons., which goes against a simple diversification motive. Thus, these small shares are plausible in and of themselves and their holdings might in fact very well capture political motives on behalf of government-owned banks.

The second explanation relates to a fairly skewed distribution of holdings across local government and savings banks. Since the start of the sample period in 2005 the share of local savings banks with some exposure to sub-sovereign debt grew from 20% to 37% at year-end 2013. The corresponding development amongst local cooperative banks exhibits a similar trend, but is less pronounced (from 7% to 17%, see Appendix Table 3). Over the entire sample period, the average local savings bank holds 2.5 million euro in home-State debt, with a mean size in terms of total assets on the order of 2.5 billion euro. The average local cooperative bank is somewhat smaller, around 0.6 billion euro in total assets, and also holds only 0.5 million euro in home-State debt (Appendix Table 4).

In terms of summary statistics, we find that lending to the home-State government is non-negligible in the case of savings banks (at 3.76% of total assets), and that between 38% and 42% of the banks in our sample reside in politically disconnected counties.

2.3 Quarterly and annual bank control variables

We also include information on an exhaustive list of standard bank-specific characteristics—such as assets, capital, stock and cash holdings, etc.—both at the quarterly and the annual level. The former data are obtained from the monthly balance sheet statistics. Most annual proxies come from micro-prudential reports on asset quality and funding details, as well as on profit and loss accounts, which are submitted to the Bundesbank at annual frequency only. The middle and the

[13] Appendix Table 1 provides information on all variable definitions and sources.

bottom panel in Table 3 provide descriptive statistics of these controls. In the empirical tests, all covariates are lagged by one period.

3 Empirical methodology and identification

The goal of this paper is to study if political alignment between a local bank's supervisory board and the State government affects the composition of savings banks' portfolios. To this end, we exploit quarterly data on the changes in banks' stocks of bonds issued by their home-State government, by the federal government, and by other States, as well as in their shares of publicly traded stocks. The quarterly frequency of the data allows us to employ a difference-in-differences type of methodology whereby we compare banks that are more likely to banks that are less likely to be affected by election outcomes and to react to the loss of political proximity following regional elections.

We exploit three features of the German institutional environment to identify the effect of political alignment between regional and state governments. First, there are two major parties in Germany, the CDU and the SPD, which dominate the ruling coalitions at both State and local levels of government. Second, there are 16 federal States, all of which issue bonds, and 438 counties. State parliament elections and elections of mayors and/or councils at the county level take place every four to six years, but at different points in time, resulting in staggered changes in the political alignment between governing coalitions at the State and at the local level. Third, the German banking system comprises three segments: private, cooperative, and savings banks. Local savings banks are owned by the counties where they are domiciled. Local political leaders, in most cases the mayor or the county commissioner, are in turn appointed by law as the chair of the supervisory board of local savings bank. The local savings bank sector accounts for 422 out of the 1,669 universal banks in Germany (GCEA, 2014), with an aggregate market share on the order of 14% under management. In addition, head institutions—so-called Landesbanken—account for another 17% of market share.[14] Cooperative banks, on the other hand, have no politicians on their boards, but they have the same objectives as savings banks, namely, to serve their community rather than to maximize profit.

[14]In our empirical analysis, we exclude all Landesbanken. These are very large and they are directly under the influence of the State government. As such, they may be subject to political considerations directly at the State level, see Ohls (2017).

We start by identifying, for each of the 438 counties nested in the 16 federal States those instances when a county became politically misaligned as a result of State or county elections that produced coalitions dominated by different parties at the two levels of government. Regardless if political misalignment arose following State or county elections, we treat all banks in a county as aligned if the state government is led by the same party that received the most votes at the county level. We consider a county—and, accordingly, all banks domiciled in it—as misaligned if the two governments are dominated by different parties. The 32 State parliament elections and 600 county elections observed over the period 2005–2013, translate into 1,183 instances in which a county and its respective State switched their status from aligned to misaligned, or the other way round.

The second step in our identification strategy exploits the idea that unlike cooperatives, local government-owned banks in misaligned localities have incentives to bridge the political distance to the State government. One potential reason is that government-owned banks are subject to the legal supervision executed by the State government, usually the Ministry of Finance or Economic Affairs. Another channel might be the influence exerted—directly or indirectly—by State governments in bailout decisions, for example via the presence of former senior politicians in executive positions of the regional associations of savings banks. These associations, in turn, administer the regional bank insurance schemes that decide about whether and how to bail out local members in distress. Cooperative banks do not maintain regional safety nets that would involve *de jure* local political representatives and possibly *de facto* state political interests.

Moreover, a local government-owned bank may be more likely to be bailed out by the State—either with public funds or through the State-wide insurance scheme—if the governing coalition in the State and in the local administration, whose members sit on the supervisory board of the bank, are from the same party. Conversely, political misalignment may reduce the probability that a local government-owned bank close to default would be bailed out as State politicians may prefer to ignore or even "punish" local politicians from the opposite party. Therefore, a local government-owned bank in a misaligned county may have an incentive to adjust its securities portfolio in reaction to the loss of political connections.

By means of an example, consider the Sparkasse in the county of Duisburg, which is located in the State of North Rhine Westphalia. During the county-level elections held in 2009, the local constituency of Duisburg cast most votes for the SPD, thus becoming politically misaligned with

the CDU-dominated governing coalition at the State level. In the neighboring county of Düsseldorf, as in most other counties within the State, the CDU won the local elections in 2009. The next State parliament elections were held just one year later in 2010, during which the SPD received almost exactly as many votes as the CDU. Together with the Green party, the SPD formed a coalition under the leadership of Hannelore Kraft as the new prime minister. From the point of view of our identification strategy, in 2010 the banks operating in the county of Duisburg switched to aligned, and the banks operating in the county of Düsseldorf switched to misaligned, given the change of guard in the State capital.

Our identification strategy is based on a difference-in-difference estimation whereby we compare the propensity of local government-owned banks to adjust their securities portfolio in response to changes in political alignment, relative to the control group of cooperative banks. Exploiting this identification mechanism, we model the total holdings of a range of securities by bank b domiciled in county k in state s during quarter t as follows:

$$Securities_{bkst} = \alpha_b + \beta_{kst} + \gamma Misaligned_{kst} \times Government - owned_b + \delta X_{bkst-1} + \varepsilon_{bkst} \quad (1)$$

$Securities_{bkst}$ is the ratio, during quarter t, of the total stock of a particular class of securities (home-State bonds, out-of-State bonds, federal bonds, and publicly traded stocks) held by bank b in county k in State s, to bank b's total assets. $Misaligned_{kst}$ is a dummy variable equal to one if during quarter t, the local government in county k and the state government in State s are dominated by different parties. The variable equals zero if SPD or CDU are in power both in the county and in the State at time t. $Government - owned_b$ is a dummy variable equal to one if bank b is a savings bank owned by the local government. X_{bkst} is a vector of time-varying bank-specific control variables, such as assets, cash, loans, capitalization, profitability, etc. Finally, and crucially, we include a vector of bank fixed effects α_b and a matrix of County×Quarter fixed effects β_{kst}. The former allow us to net out the effect of unobservable bank-level characteristics, such as the propensity to take risk or managerial quality, that might be fixed over a long period of time and thus explain a large part of the cross-sectional variation in securities holdings across banks. The latter wash out any variation in the bank's propensity to hold different classes of securities that

is common to all banks in the same county at the same point in time. Identification therefore comes from comparing the behavior of government-owned and of cooperative banks in the same county during the same quarter, in politically aligned relative to politically misaligned counties. We specify two-way clustered standard errors at the county and quarter level (Petersen, 2009). We estimate the parameters of Model (1) using OLS, but we also show that the main result in this paper is robust to employing non-linear regression models (see Appendix Table 5).

Our coefficient of interest is γ. In a classical difference-in-differences sense, it captures the difference in the propensity to hold a particular class of securities by the State between local government-owned banks (the treatment group) and local cooperative banks (the control group), in politically misaligned versus politically aligned counties. A positive coefficient would imply that—all else equal, and relative to cooperatives—government-owned banks hold more of a particular class of securities (e.g., bonds issued by their home-State) in counties where the local administration is dominated by a different party from the one in power at the State level. The numerical estimate of γ captures the difference in the overall holdings of a class of securities between aligned and misaligned counties induced by switching from the control group to the treatment group.

4 Politics, banks, and securities holdings: Empirical results

4.1 Main result: Political misalignment and portfolio allocation

4.1.1 Home-State bonds

The headline results of the paper are reported in Tables 4 and 5. We first look at the impact of the electoral cycle on banks' holdings of home-State bonds. We start by estimate empirical model (1) with different combinations of bank-level controls and fixed effects. In column (1), we report a simplified version of the model, without any control variables and without any fixed effects. The lack of bank fixed effects and of County×Quarter fixed effects allows us to include the individual components of the main interaction variable $Misaligned \times Government - owned$. The results show that local government-owned banks exhibit on average higher home bias at all times, compared to local cooperatives. Our results also imply that both government-owned banks and private cooperatives in politically misaligned counties are more likely to hold sub-sovereign

bonds issued by their home State. Crucially, the coefficient on the interaction term $Misaligned \times Government - owned$ is positive and significant, suggesting that local government-owned banks in politically misaligned counties are considerably more likely to load up on home-State bonds, relative to local cooperatives, than local government-owned banks in aligned counties. This effect is significant at the 1 percent statistical level.

Clearly, this effect might simply reflect some other unobserved bank traits. In column (2), we therefore add bank-specific controls observed with quarterly frequency. Crucially, the point estimate on $Misaligned \times Government - owned$ is still positive and significant at the 1 percent statistical level. Regarding individual covariates' point estimates, we find the following. Larger banks, as measured by the log of total assets, are more likely to hold bonds issued by the home State. One possible explanation is that only the larger local banks have sufficient capacity in their investment portfolios to hold State bonds (instead of federal bonds) for conventional reasons, such as demand for collateral, liquidity management, and so forth. Related, we find that banks with larger shares of completely different asset classes relative to total assets are also less likely to hold sub-sovereign debt. Specifically, the total asset shares of cash (a store of liquidity) and stocks (an alternative form of security-driven revenue) are significantly negative as well. Banks with different approaches to store liquidity and those seeking alternative non-lending sources of revenue but fixed income are thus less likely to invest in State bond holdings.

At the quarterly level, we also observe for each bank the share of corporate, household, and foreign non-financial firm lending relative to total non-financial firm lending. The omitted category are loans to the non-profit and government sector, relative to which all banks are also less likely to hold home-State' bonds. The coefficients on these three categories are all statistically negative. The effect of the foreign lending share is the largest, which might suggest that in particular those banks with the most non-domestic exposure are also significantly less likely to hold State bonds. More internationally oriented banks thus seem less inclined to engage in local and State politics, possibly because such positions do not provide an effective bailout protection anyway.

One limitation of the monthly balance sheet statistics, from which we observe bank-specific traits, is the lack of profit and loss account reporting of German banks during the year. Therefore, we specify in column (3) an additional vector of covariates observed with annual frequency. More core capital, higher profitability, lower fee income, larger liquidity buffers, as well as less

inefficient operations all correlate positively with home-State bonds. These patterns would thus be inconsistent with a lower need for building political connections due to bleak prospects among banks with more stable financial profiles. An alternative interpretation of these annual covariates' effect is, however, that banks with larger capital and liquidity buffers lack sustainable investment opportunities in their local markets. Likewise, the negative effect of a higher fee-income share may simply indicate that certain banks' business models, like credit- or advisory-based ones, lead banks to hold generally fewer securities, including those issued by their home State. And finally, higher cost-to-income ratios, conventionally interpreted as an indicator of inefficient management, correlate positively with home-State bond holdings. The main effect still obtains, as suggested by the still positive and highly significant effect on the interaction of $Misaligned \times Government-owned$.

In this specification, we find that the difference in home-State bond holdings between government-owned banks and cooperatives in aligned localities is no longer significantly different from zero. At the same time, the coefficients on the variables $Misaligned \times Government-owned$ and $Misaligned$ imply that the difference in home-State bond holdings between government-owned banks and cooperatives in misaligned localities is 4 basis points. This magnitude corresponds to an increase by 37% given a mean share of 10.8 basis points (see Table 3). Thus, even these very small shares respond markedly in relative terms to the exogenous rupture of political ties between local and State politics. At the same time, cooperative banks in misaligned localities on average have 1.4 basis points higher holdings of home-State debt, suggesting that the diff-in-diff coefficient should not be interpreted in the sense of cooperatives reducing their holdings of home-State debt following political misalignment.

In column (4), we introduce bank fixed effects and quarter fixed effects. The combination of controls and fixed effects in this regression explains about 47 percent of the variation in state bond holdings, and the magnitude of the coefficient on the interaction variable, as well as its significance, are practically unaffected. In column (5), we include quarterly bank controls, in addition to bank fixed effects and County×Quarter fixed effects. The latter wash out the effect of all unobservable time-invariant bank characteristics and of local economic conditions common to all banks in a county at the same point in time. In this fully saturated specification, the point estimate on the interaction term $Misaligned \times Government-owned$ is still positive and significant at the 1 percent statistical level. Numerically, it declines by 0.9 basis points relative to the estimate in column (4),

suggesting that indeed economic conditions at the level of the county that are common to both government-owned and to cooperative banks explain a substantial portion of the variation in State bond holdings. We also find that the combination of control variables and fixed effects explains around 57 percent of the variation across banks in state bond holdings. The magnitude of the main effect of interest declines further in our preferred specification in column (6) where we add the annual covariates, but it remains significant at the 5 percent statistical level.[15]

The estimates reported in Table 4 strongly suggest that local government-owned banks increase—more than cooperatives—their holdings of home-State debt in order to make up for the loss of political connections when the local government is dominated by an opposite party from the party in power at the State level. The main result cannot be explained by the kind of "moral suasion" practiced implicitly during the sovereign debt crisis (e.g., Ongena, Popov, and van Horen, 2016). Under this mechanism, banks in aligned localities should be *more* likely to purchase additional State-issued bonds if the authorities at the State level need their fellow party members on the board of local savings banks to push for the provision of fresh funds for pet infrastructure projects. The results in Table 4 are also not immediately related to the "risk shifting" channel whereby banks bet on risky government debt because they expect to be bailed out, partially or fully, in the event of a sovereign default (Broner, Erce, Martin, and Ventura, 2014; Farhi and Tirole, 2014). This is so because even though government-owned banks typically have a higher incentive than private banks have to shift risk, the assets in question are practically risk-free. Finally, these results are inconsistent with the "liquidity management" mechanism: if government-owned banks have a higher incentive to store liquidity in State bonds, this incentive should not be affected by the political connections of the bank's board.

Figure 3 plots the difference between government-owned banks and cooperatives in their propensity to hold home-State sub-sovereign bonds, in misaligned and in aligned localities, and around election events. It shows that government-owned banks are at all times more likely to hold own-State bonds. In particular, during periods of political alignment, government-owned banks hold around a 0.3 higher share of their assets in home-State bonds than cooperatives. However, after an election that produces political misalignment, this difference jumps to 0.8, while it stays at 0.3

[15] Appendix Table 5 demonstrates that the main result in this paper is robust to employing non-linear regression models to account for the structure of the bond holding data, such as Tobit, Probit, Logit, and Poisson models.

in counties where the election outcome was political alignment.

4.1.2 Other securities holdings

In Table 5, we report estimates from Model (1) for alternative dependent variables: holdings of federal bonds, holdings of bonds issued by other German States, and holdings of a broad class of publicly traded stocks. We subject all of these tests to the same empirical strategy as in Table 4, i.e., gradually adding bank controls and fixed effects. However, for brevity we report only the estimates from the preferred specification with quarterly and annual bank controls, which are supressed, with bank fixed effects, and with County×Quarter fixed effects.

We find that there is no statistical difference in the behavior of local government-owned banks and of local cooperatives, in aligned versus misaligned localities, with respect to their holdings of German federal bonds (column (1)). This shows that political considerations do not increase local government-owned banks' appetite for sovereign debt *per se*, because in this case they would increase their holdings of the safest and most widely available German government bond as well. Moreover, in column (2), we find that relative to cooperatives, government-owned banks in misaligned localities are not more likely than government-owned banks in aligned localities to purchase sub-sovereign debt issued by other German states. This finding lends further support to the idea that political misalignment is only costly to local government-owned banks when it involves a rupture along party lines with the government in their home State, which is the legal supervisor and home to the regional association administering bailouts. Finally, in column (3), we fail to reject the null hypothesis that government-owned and private banks do not differ, across aligned and misaligned localities, in their propensity to hold common stocks. The totality of our results suggests that indeed, elections which change the political alignment between States and individual county do not affect banks' incentives to adjust their portfolio beyond home-State debt securities.

4.2 Falsification tests

Our results so far suggest that elections that produce a political misalignment between the local and the State government lead to a securities portfolio adjustment by local government-owned banks, relative to local cooperative banks with similar non-profit-maximizing objectives. In particular, banks appear to increase their holdings of home-State bonds, but leave their holdings of other

securities (other sovereign and sub-sovereign bonds and stocks) untouched.

We now want to make sure that this effect is really driven by elections which produce a political misalignment between the local and the State government. To make sure that we are not mistakenly identifying an alternative mechanism, in Table 6 we conduct a series of falsification tests. In particular, we re-date the electoral outcomes in our data set in a number of ways. In column (1), we pretend that all elections took place a year earlier, and we re-code the *Misaligned* dummy accordingly. We also re-date the electoral outcomes by artifically moving all elections by 2 years (column (2)) and by 3 years (column (3)).

The results in Table 6 show unequivocally that the association between political misalignment and home-State bond holdings vanishes when we specify placebo elections. These results thus corroborate that local government-owned banks increase these holdings only when their political connections to the State government along party lines is ruptured after a regional election.

4.3 Alternative channels

In Table 7, we address the concern that the effect we observe is driven by other shocks to banks that happen to coincide with particular election outcomes. It is possible that at the same time when political alignments change as a result of elections, some government-owned banks are facing concurrent shocks to their propensity to adjust their securities portfolio—unrelated to political distance—that other banks are not experiencing.

In column (1), we account for the possibility that government-owned banks (the treatment group) and cooperative banks (the control group) may not be sufficiently similar across observable characteristics, a hypothesis reinforced by the difference in means reported in Table 3. In principle, we control for these differences by including time-varying bank controls and we control for unobserved bank-specific time-invariant heterogeneity by including bank fixed effects. However, to account for the fact that variables such as bank size and capital adequacy can potentially predict a bank's propensity to load up on sovereign bonds, we also estimate our model using a sample which is chosen based on a Propensity Score Matching procedure. In practice, we calculate a propensity score for each bank's likelihood of being government-owned versus being a cooperative bank, based on a range of bank-specific controls. We next reduce the sample of cooperatives to the subset that is most similar to the sample of government-owned banks. The estimates show that even within

the matched sample, and compared to cooperative banks, savings banks in misaligned localities hold a significantly larger stock of State bonds than government-owned banks in aligned localities.

We next note that in 2007 and 2008, five Landesbanken (Sachsen LB, West LB, Bayern LB, and Landesbank Baden-Württemberg, and HSH Nordbank) that had invested substantially in the U.S. subprime mortgage market before the financial crisis, declared significant losses. Because savings banks in the respective federal States were required by law to provide support to their respective Landesbank (for details, see Puri, Rocholl, and Steffen, 2011), they became at the time less likely to engage in other activities, such as making loans or purchasing securities. In column (2), we account for this shock by including an interaction between the government-owned dummy and a dummy equal to one if the bank operates in a State whose Landesbank required public assistance. We indeed find that our main result still obtains after controlling for this concurrent shock.

In columns (3) and (4), we account for two alternative bank-level shocks that may affect their propensity to hold sub-sovereign debt beyond the loss of political proximity. In particular, we include an interaction of the government-owned dummy and a variable capturing the bank's regulatory capital (column (3)) and the bank's share of non-performing loans (column (4)). We find that such concurrent shocks do not explain away the propensity of local savings banks to load up on State debt after the loss of political connections.

Finally, in column (5), we find that local government-owned banks are more likely to purchase home-State debt if it is rated better. This result directly rejects the asset-substitution hypothesis whereby banks strive to acquire a riskier portfolio (e.g., Gennaioli, Erce, Martin, and Rossi, 2014a). Crucially, the effect which captures the mechanism related to political connections is still statistically significant in this case, too.

4.4 Control group

Our identification strategy is based on the idea that elections, which give rise to governing coalitions at the State and at the county level that are dominated by different parties, affect savings banks but not cooperative banks, rendering cooperatives a proper control group. Our strategy thus allows us to compare a savings bank to a cooperative bank in the same locality by including County×Quarter fixed effects. These are crucial as they control for unobservable time-varying county-specific factors that can impact all banks active in a particular county, such as investment opportunities. However,

concerns that cooperative banks are not a valid control group for government-owned savings banks may continue to linger on. We have so far argued that they are a valid control group because, unlike private banks, and similar to savings banks, cooperatives are driven by non-profit-maximizing motives, yet their governance structure distances them from local and State political considerations. However, they could in theory have objectives unobservable to the econometrician that could introduce a political motive for them to adjust their securities portfolios.[16]

We address this concern parametrically by excluding, in Table 8, cooperative banks from the sample. We thus modify Model (1) to simply compare the behavior of local savings banks at the same point in time across aligned and misaligned localities. Because there is typically one savings bank per county, we can no longer include County×Quarter fixed effects. However, we can include State×Quarter fixed effects and compare savings banks in misaligned localities to savings banks in aligned localities, within the same State. The point estimate from this test declines as we progressively add bank controls and various combinations of fixed effects, but it is uniformly significant at least at the 5% statistical level. This suggests that relative to savings banks in aligned localities, savings banks in misaligned localities have larger holdings of home-State bond holdings. In our preferred specification (column (5)), this difference corresponds to about 8% of the sample mean in home-State holdings. We conclude that differences in home-State bond holdings across local government-owned banks must indeed be down to the need to build political connections with the State government in the face of exogenous shocks to such connections brought about by election results.

Recall that according to Figure 3 plots the difference between government-owned banks and cooperatives in their holdings of home-State sub-sovereign bonds increases significantly after an election that causes a county to change its political status from aligned to misaligned. Figure 4 suggests that this is indeed entirely due to the behavior of government-owned banks. While their holdings of home-State bonds hover around 0.75 during times of political alignment, they jump to 1.15 in the first year, to 1.25 in the second year, and to 1.6 in the third year after an election that brings about political misalignment.

[16]For example, some members of the German federal—not State—parliament (Bundestag) serve on supervisory boards of local cooperatives banks, usually those from their home county. But in contrast to the State laws on savings banks (Sparkassengesetze) that require in all 16 states that regional politicians serve on boards *ex officio*, local cooperative banks' members are free from any legally binding rules whom to appoint as the chair of this supervisory body.

4.5 Contiguous counties

In our main tests so far, we have compared the composition of bank portfolio in misaligned counties relative to aligned counties. This empirical strategy can produce biased estimates in the presence of unobservable trends which differ across counties and which affect different banks in different ways. Economic conditions can be different in some counties at the time of electoral change resulting in political misalignment: for example, the quality of retail customers that borrow from government-owned banks in such localities may be deteriorating, making them less willing to extend loans and more willing to invest in public debt instead. Model (1) allows us to estimate the average effect of political misalignment net of the impact of individual bank characteristics. However, our results can still be contaminated by a host of unobservable factors that make the population of an aligned county a poor control group.

To assuage such concerns, we adopt a version of the empirical strategy used by Card and Krueger (1994), Holmes (1998), Black (1999), and Huang (2008). We compare individual banks in *adjacent* counties across neighboring German states, one of which is politically misaligned while the other is not. The assumption is that two neighboring counties are really one economic area when it comes to observable factors such as economic growth and to unobservable factors such as growth opportunities. Hence, any discernible differences in the portfolio composition between certain types of banks can be attributed to changes in political alignment in one county but not in the other.

Table 9 reports the estimates from this test. By focusing on neighboring counties across state borders, we lose about 60% of all observations, but we still have plenty of variation in aligned and misaligned localities left. We adopt a number of different procedures; in particular, we use all banks in a county (column (1)), we only compare local savings banks across contiguous counties (column (2)), and we choose the control group of banks using a Propensity Score Matching procedure as in Table 7, column (1)). Our main result still obtains even in these considerably more restrictive specifications, suggesting that we capture a genuine political misalignment effect uncontaminated by concurrent unobservable adjustments—at the level of the county—in sub-sovereign or banking market conditions that affect government-owned and private banks differently. In all cases, the numerical impact of political misalignment is around twice as large compared to the main specification in Table 4, column (6), and uniformly significant at the 1 percent statistical level.

4.6 Robustness

4.6.1 Robust dependent variable

The next two sets of robustness tests shall ensure that our results are not driven by a particular choice of empirical proxies. So far, the dependent variable is the ratio of the book value of the total stock of sovereign bonds issued by State s and held by bank b in county k to bank b's total assets at time t. In Table 10, we re-run regression Model (1) with three alternative empirical gauges of bank's total home-State bond holdings. The first proxy looks at the nominal value, rather than the market value, of bonds issued by the home State.[17] The second proxy scales total holdings of own sub-sovereign bonds by the total securities portfolio, i.e. including stocks and fixed income of any issuer, instead of by the bank's total assets. The final proxy scales the bank's total holdings of bonds issued by the home State by the bank's total holdings of fixed income securities, both corporate as well as government bonds. The motivation is that fixed income and equity portfolios might be managed separately. The first three columns of Table 10 clearly show that our main result—that politically misaligned government-owned banks are more likely, relative to similar cooperative banks, to increase their total holdings of home-State bonds—is not a feature of any particular strategy for calculating bank-specific exposure to sub-sovereign bonds.

In column (4), we specify loans to government entities scaled by total assets as a dependent variable. The coefficient on the interaction variable $Misaligned \times Government - owned$ is again positive and significant at the 1 percent statistical level. Note that the available data does not distinguish between lending to the home State government, lending to other German State governments, lending to the federal government, and lending to foreign governments. But it is plausible that government lending by small local savings banks will be predominantly to the bank's home-State government.[18] Within the confines of this assumption, this test provides additional evidence that local government-owned banks try to make up for the loss of political connections by increasing their funding of those government authorities that can plausibly return the favor in the future.

Finally, in columns (5) and (6), we demonstrate that our results are robust to using growth rates instead of levels to define home State bond holdings and government lending, respectively.

[17] Appendix Table 4 shows that the differences between the market value according to German accounting rules and the nominal value of State bonds is negligible across savings and cooperative banks.

[18] Related, Gao, Ru, and Tang (2016) show that Chinese government-owned banks tend to lend to local governments.

4.6.2 Robust alignment

We have so far compared differences across government-owned and cooperative banks, in politically misaligned versus aligned localities, abstracting from the duration and the origin of misalignment. In Table 11, we first test how the duration of a misalignment spell affects differences across banks in their propensity to load-up on their home-States' bonds. We split the *Misaligned* dummy into post-election quarterly components, i.e., dummies equal to 1 if the bank is observed one, two, three, etc., all the way to nine or more quarters after an election that produces a political misalignment between a country and a State, and to zero otherwise. We report the estimates from this regression in column (1). The estimates from this test suggest that local savings banks increase substantially their holdings of home-State debt in the second quarter, and continue to do so until the seventh quarter, after political ties have been severed. Thereafter, the effects are no longer significantly different from zero, plausibly because banks ultimately sell these securities on secondary markets.

Next, we note that in our tests so far, we have used an indicator for political misalignment which is equal to one regardless of the electoral origin of such misalignment. In practice, misalignment can occur either because a State election brings about a governing coalition at the State level that is dominated by the opposite party from the one that is currently in power in the county, or because a county election results in most votes being cast for the opposite party from the one that is currently in power in the State capital. We hypothesize that the former case is more likely to induce government-owned banks in misaligned localities to attempt to endear themselves with the new government in the State. In the latter case, it may take some time for the former mayor to lose her seat on the board of directors of the local savings bank, during which time she can still influence the bank's decision-making. However, an entrenched mayor on the board of a local savings bank who is suddenly facing a political foe at the State level will have an immediate incentive to adjust the bank's securities portfolio.

In order to bring this hypothesis to the data, we create two *Misaligned* dummies, one for when a State and a county become politically misaligned following State elections, and one for when a State and a county become politically misaligned following local elections. We then modify Model (1) accordingly, so that we can test for the effect of political misalignment in each of these cases. Consistent with our prior, we find that misalignment brought about by State elections has

an immediate, sizeable, and statistically significant impact on the propensity of local banks to load up on home-State debt (column (2)). Misalignment brought about by local elections has no such effect (column (4)). This confirms our conjecture that the incentive to reduce the political distance to the home State sovereign is strongest for entrenched politicians on the board of banks that are faced with an exogenous shock to their existing political connections.

This result is further strengthened when we split the two new *Misaligned* dummies into post-election quarterly components, as in column (1). After a State election that produces a political misalignment with a particular county, the according local government-owned banks increase immediately their holdings of home-State debt, and they keep doing so for a full year (column (3)). After that, there is no significant difference between theirs and local cooperatives' holdings of home-State debt, relative to aligned counties. This patterns contrasts with column (1) which shows that in the full sample, local government-owned banks only start increasing their holdings of home-State debt in the second quarter after elections. The two pieces of evidence are reconciled by the fact that political misalignment brought about by local elections produces no immediate significant difference in home-State debt holdings between savings and cooperative banks (column (5)).

Turning to the economic interpretations of the point estimates, a State election that causes a local government-owned bank to switch its political status from aligned to misaligned results in an increase in that bank's holdings of debt issued by the respective State government of 4.6 basis points, or a sixth of a sample-wide standard deviation, relative to a similar cooperative bank in the same county. Given an average holding of State debt by a local savings bank of 10.9 basis points (or 2.5 million euro), this corresponds to an increase in such holdings of 42%, or 1.05 million euro worth of home-State bonds (relative to the analogous difference between a Sparkasse and a cooperative bank in a politically aligned locality).[19]

4.7 The cost of political misalignment

Our evidence so far suggests that political connections explain differences across government-owned banks in their portfolio composition. In particular, we find robust evidence that faced with a loss of proximity to State authorities along political party lines, local government-owned banks increase

[19] A final robustness test addresses the fact that the three city-states in our sample—Berlin, Bremen, and Hamburg—comprise only one county (two in Bremen). Thus, these banks cannot be misaligned by construction. Appendix Table 6 confirms the baseline results when we drop these three city-states individually and jointly.

their holdings of home-State sub-sovereign bonds.

The novel fact we uncover raises the question, what are the costs to local German savings banks of losing their political connections with the State government? One potential benefit of being a connected firm (bank) suggested by prior research is access to bailout funds in times of distress (Faccio, Masulis, and McConnell, 2006). In fact, Bian, Haselmann, Kick, and Vig (2013) study incidences of local bank bailouts in Germany with public funds and through insurance schemes. In the vein of their study, we exploit the institutional arrangement of the bailout insurance scheme in the savings bank sector in Germany as well, since it suggest that this mechanism could be at work in our setting, too. Individual savings banks in a German State are connected through regional savings bank associations that operate safety nets at the State level. These associations operate guarantee funds where member banks in the association provide support if another member bank is in distress. The bodies that govern regional savings bank associations include representatives from the individual banks, in particular the local politician serving as the chair of the supervisory board of member banks. In addition, the president of the association constitutes another important body in the decision making according to the statutes of regional savings associations. This position is often politically appointed according to observers (see, e.g., Schieritz and Storn, 2012) and anecdotal evidence (see, for example, the Rheinischer Sparkassen- und Giroverband). Given the proximity of State and county politicians within these regional associations, we consider it possible—if not plausible—that the terms of bailout decisions of individual savings banks are affected.

This institutional arrangement leads us to hypothesize that local government-owned banks in aligned counties are more likely to receive benevolent bailout conditions compared to similar government-owned banks in misaligned counties, because in politically aligned counties, the governments at the State level and at the county level are dominated by the same party. The State government should have no political interest to influence decision makers at the regional association deciding on the bailout terms towards more generous support in the case of distressed local savings banks with politicians on their boards that are from a different party. Note that we remain agnostic as to how such an exchange of arguments concerning business affairs at savings banks between State and local politicians in the association occurs. This can happen either discretely through obviously unobservable party and other informal connections or it can sometimes turn out to be rather outspoken. An example for the latter case is the revokement of the annual report

of Stadtsparkasse Düsseldorf for 2014 by the legal supervisor, the State Ministry of Finance in North-Rhine Westphalia two years later in reaction to a veto by an aligned local party politician who disagreed with the majority of the supervisory board that initially approved the annual report. The according press release of the Ministry of Finance (2016) is illuminating as it explicitly confirms that this *ultima ratio* decision to revoke the financial statement was preceded by—very sensible—attempts to reach consensus amongst the management of the bank, supportive supervisory board members, the dissenting local owner represented by the mayor, but also further stakeholders. We can only speculate that this last group also involved representatives from the regional savings bank association, but it does not seem entirely far-fetched given the mandate of the association to guard the interests of its members.

We limit ourselves here, however, to an empirical test of the hypothesis that significant differences in received bailout terms between aligned and misaligned savings banks existed. To this end, we acquire data on actual bailout disbursements for the entire German banking system over the sample period 2005–2013. These data are obtained from microprudential supervisory reports, which feature for each bank—cooperative and savings—the amount of support received from their respective safety nets, either in terms of outright equity support or in the form of warrants.[20] Based on these information, we create a variable equal to the bailout amount—relative to total assets—in the quarter in which a bank receives a bailout injection.[21] This cross-sectional test relies on a total of 131 of individual episodes during which a bank received a bailout injection. In our sample, most capital support observations pertain to cooperative banks, namely 90%. We then relate this variable to the ownership structure of the bank and to the political alignment between the State government and the local government.

We report the estimates from this test in Table 12. We run several models, with different combinations of bank controls, state fixed effects, and time fixed effects. These fixed effects account for the fact that the generosity of bailout terms may vary across states and/or over time. In all specifications, we neither find a significant direct effect of misalignment or ownership as such. But within the group of government-owned banks, the interaction term indicates that savings banks

[20] These are stock data and thus might also represent historically received support that has not been repaid to the insurance schemes yet. Our results are robust to the exclusion of the seven savings banks that received capital support prior to our first sample period and thus "inherited" a bailout.

[21] Bank distress is non-trivial among German banks. Dam and Koetter (2012) report that in each year during the 1995–2006 period, 8% of all German banks were in distress. See also Kick, Koetter, and Poghosyan (2016).

in misaligned localities receive substantially lower bailout funds, relative to their risk-weighted assets, than similar savings banks in aligned localities. Numerically, our preferred specification with quarterly and annual bank controls and with State×Quarter fixed effects (column (5)) suggests that the difference between the average bailout funds (relative to risk-weighted assets) received by politically aligned government-owned banks and those received by misaligned government-owned banks is equal to three-quarters of the interquartile range. The data thus supports the conjecture that political distance is costly to local government-owned banks in the sense of reduced insurance-scheme support in times of distress. Of course, this result does not rule out other possibilities which we cannot test for lack of suitable data, such as laxer supervision of politically connected banks (Horvitz and Ward, 1987), or career transition by connected politicians between the public and the private sector (Luca, Seru, and Trebbi, 2014).

4.8 Discussion

The second question that our novel result raises is, how does increasing their holdings of home-State bonds compensate for the loss of political connections along party lines? We already argued that our results are unlikely to be driven by the kind of tit-for-tat that is usually associated with "moral suasion", i.e., banks purchasing distressed sovereign debt when no other investors are willing to do it, in exchange for future political favors (Romans, 1966; Horvitz and Ward, 1987; Ongena, Popov, and van Horen, 2016). For one, all German states were very highly rated during our sample period. It is not necessary for governments to press credit institutions to acquire public bonds when demand for these bonds is robust. Second, even if they had to exert pressure on banks to purchase State bonds, State governments would find it easier to pressure "their" banks, i.e., banks to whom they are connected along party lines.

Another possibility is related to the peculiar mechanics of State debt placement in Germany: unlike Bunds, State bonds are typically placed privately rather than by means of a public auction. Indeed, we have inquired with the fiscal authorities in the individual German States and they have confirmed to us that a private placement is their preferred arrangement. In practice this means that the State finance ministry and a financial institution agree on the amount and the price of a debt placement in private, without making the terms of the transaction publicly known. Given this arrangement, the first possibility is that such private placements involve advantageous terms,

e.g., below-market prices are agreed. This is tantamount to the provision of cheap funding to the State government, and it is fully within the confines of standard capital requirements which treat sub-sovereign bonds—unlike loans to the State government—as zero-risk-weighted assets. However, the amounts involved are very small: the difference in home-State bond holdings between a misaligned and a similar aligned bank is between 400,000 and 1 million euro, depending on the specification. This makes it unlikely that the State government extracts sufficient financial gain from this transaction for it to constitute a political favor that needs to be returned in the future. In combination with the top ratings of the German States throughout our sample period, these small amounts also make it unlikely that banks are coordinating on acquiring sub-sovereign debt in order to increase their bargaining position in case the State is close to default, as in Farhi and Tirole (2012).

Alternatively, such operations may simply buy banks "face time" with the right politicians, making them akin to lobbying. Research has recently concluded that the main added value of lobbyists is their access to individual politicians, rather than their expertise in the legislative process (Bertrand, Bombardini, and Trebbi, 2014), suggesting that front-row access to politicians is crucial to private businesses. While gaining access to State politicians is automatic if they are from the same party, doing so can be difficult if they are not. This is especially true in a country like Germany where the two main alternative channels—political lobbying and private contributions—are severely limited in scope. At the same time, evidence abounds of the benefits to private businesses in Germany—in terms of access and rent-seeking—of personal connections through various associations (e.g., Haselmann, Schoenherr, and Vig, 2017). Therefore, the contacts established during a legal financial operation which requires the presence of both the State politician and the banker—such as purchasing State bonds in a private placement—may provide politically disconnected banks with exactly the kind of access to politicians that they need.

Given the evidence in the previous section, one material benefit from such access to State politicians could be more generous resolution in case of distress. Another could be laxer supervision of banks that have established personal connections with State authorities. Both mechanisms would be consistent with standard theories of regulatory capture (Stigler, 1971; Peltzman, 1976). Under this view, any favorable treatment of banks with working access to politicians would be a response by regulators to the rent-seeking pressures and political influence of banks. However, because of the

small number of bailed out banks in our sample that hold home-State bonds (e.g., only 3 savings banks, out of 13 that received a bailout, hold home-State bonds), we cannot properly test the hypothesis that misaligned government-owned banks that have bought home-State bonds receive more generous bailout terms. We are therefore forced to hypothesize that any potential future benefits in terms of bailout treatment, stemming from the efforts of the banks in our sample, are yet to materialize.

5 Conclusion

Political connections are valuable because they can buy firms preferential treatment, both in good times and in times of distress. Political relationships are particularly valuable to banks, and they devote substantial resources to acquiring political access; for example, the U.S. financial sector spends almost $500 million per year on lobbying elected officials, second only to the health industry (Lambert, 2015). Using a security-level dataset for around 1,700 German banks between 2005 and 2013, we investigate how government-owned banks' securities portfolios adjust in response to the loss of political connections. We exploit changes in the composition of governing coalitions at the State and at the county level resulting from staggered elections in 16 States and 438 counties. Because local elected officials sit on the supervisory boards of local government-owned banks, we define politically connected banks as local government-owned banks in a county where the governing coalition is dominated by the same party that dominates the State government.

We show a robust new fact: following an election that leads to the loss of their political connections, local government-owned banks in Germany increase strongly and significantly their holdings of sub-sovereign bonds issued by their home-State government. This effect is particularly strong after the emergence of political misalignment due to elections at the State level, a pattern consistent with existing local politicians' trying to establish connections with a new, but politically distant State government authority. Cooperative banks (the comparison group) engage in no such behavior after elections that produce political misalignment, which is consistent with the absence of local politicians from their governance and management structure. Moreover, the same election event does not lead the same government-owned banks to adjust their holdings of any other broad class of securities, such as German federal bonds, bonds issued by other German States, or traded

stocks. Our paper is the first to document a link between the electoral cycle and the home bias in banks' securities portfolios.

While we cannot (and do not) document the explicit workings of such bridging of political distance, there are several hypotheses for why this mechanism is effective. For one, sub-sovereign debt in Germany is typically placed privately, therefore, neither quantities nor prices are publicly observed. It is possible that in such private placements, and as a political favor, banks offer to purchase bonds at better-than-market prices. Yet given the small amounts involved in the transactions analyzed in this paper, a second possibility seems more likely. The documented bond-purchasing operations may simply initiate a repeated interaction between local politicians and State politicians who otherwise do not meet along party lines, which makes them akin to the "face time" or "front-row access" that lobbying buys.

The robust empirical regularity that we have uncovered can be worrisome to policy makers for at least two reason. For one, higher balance sheet exposures to the sovereign can exacerbate the bank-sovereign loop in times of heightened sovereign stress (e.g., Uhlig, 2013; Acharya, Drechsler, and Schnabl, 2014; Broner, Erce, Martin, and Ventura, 2014; Cooper and Nikolov, 2014; Farhi and Tirole, 2014), an argument that easily extends to sub-sovereign entities. Second, the literature has demonstrated that investing in public debt can crowd out private investment (e.g., Becker and Ivashina, 2014; Gennaioli, Martin, and Rossi, 2014b; Popov and van Horen, 2015). Investigating if the propensity of politically misaligned banks to increase their holdings of home-State debt is associated with lower local lending is beyond the scope of this paper, but it does present itself as a fruitful avenue for future research.

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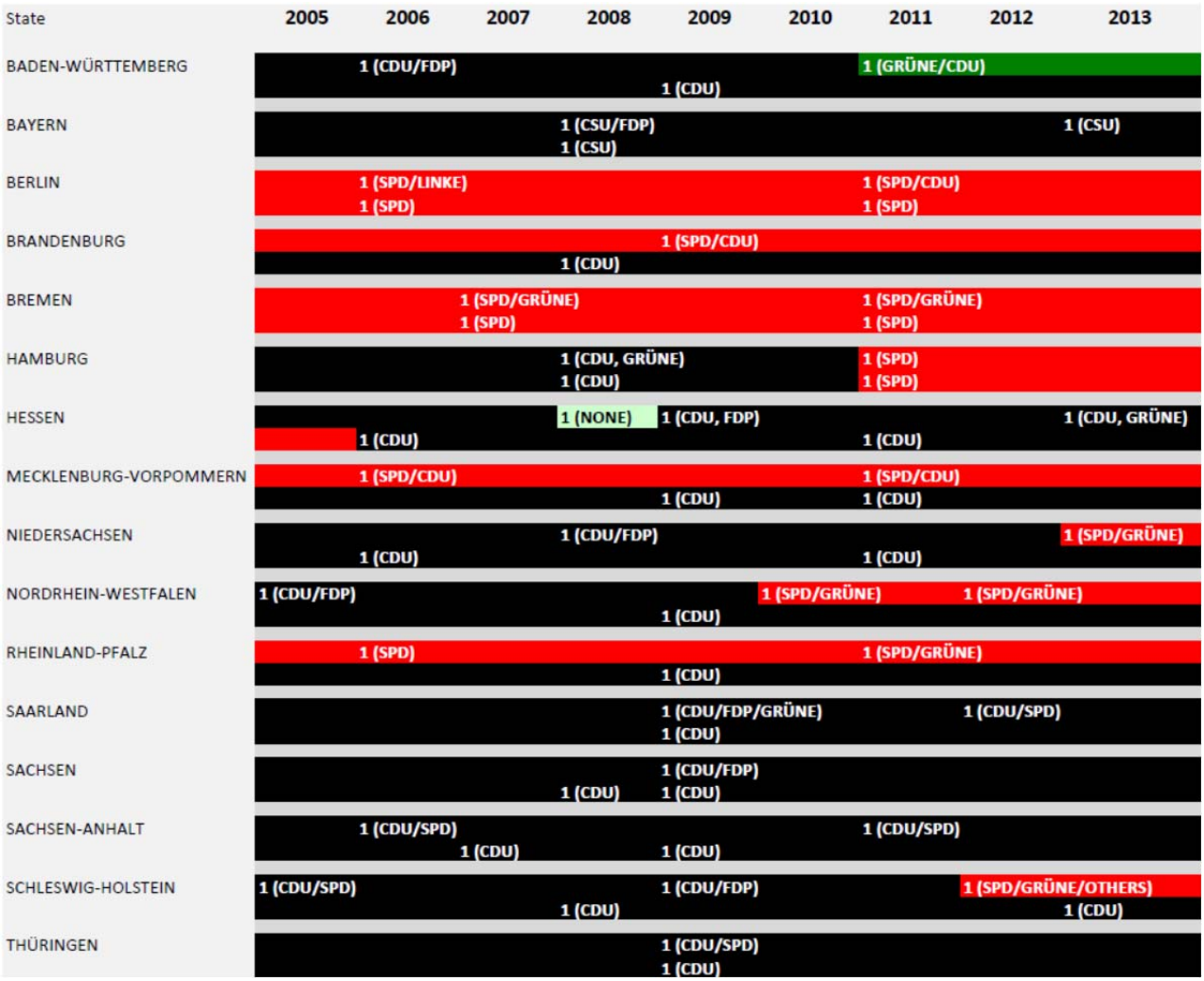
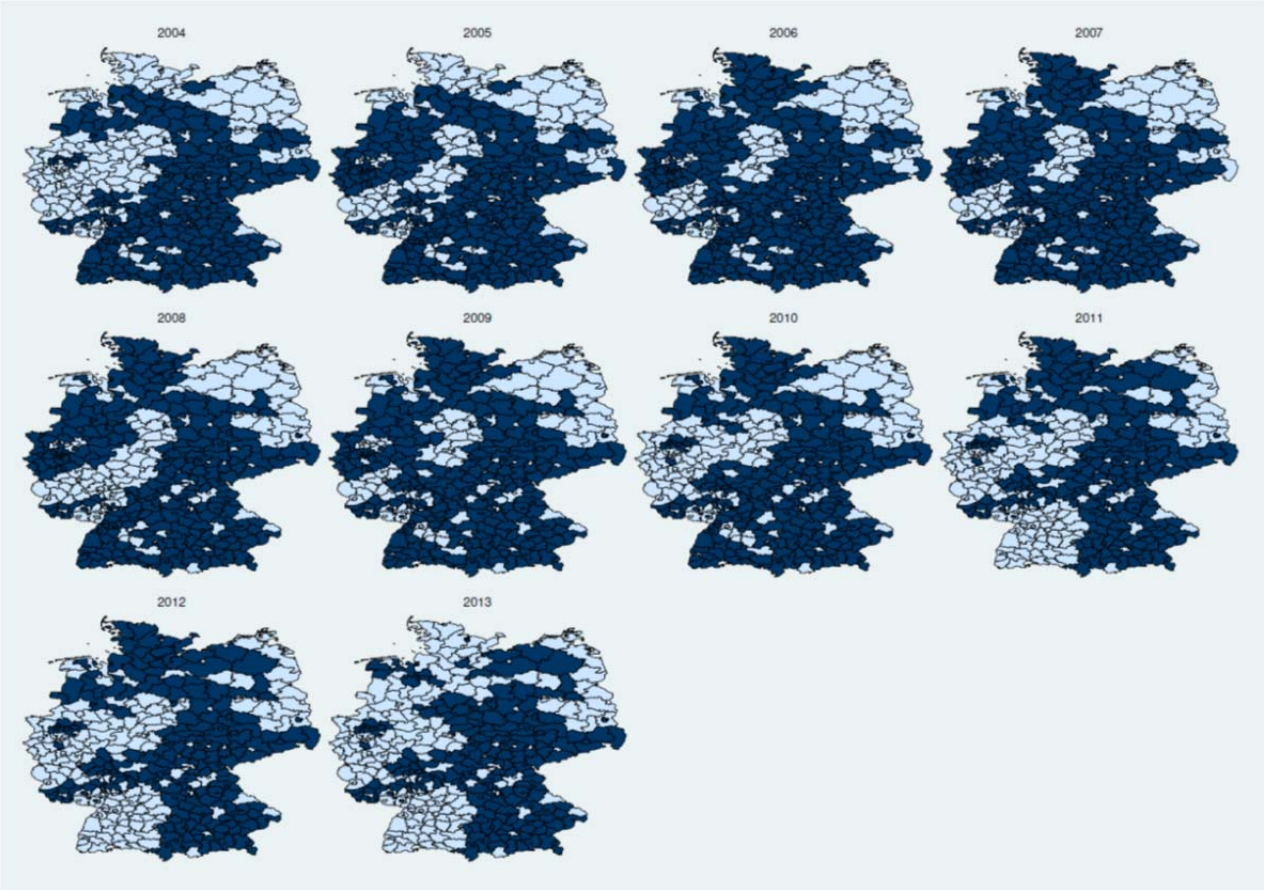
Figure 1. Election patterns in Germany between 2005 and 2013, by State



Notes: This figure shows the timing of both State-levels and county-level elections. An election year is marked with a "1". The resulting State-level coalition is named in the top line for each State. The first acronym indicates the senior partner in the coalition, also represented by the color of the according bar. The bottom bar indicates the party with the most cumulative votes in county elections; within-State differences across counties are shown in the maps in Figure 2. CDU (Christian Democratic Union of Germany) is a center-right party. Its sister party is the CSU (Christian Social Union), which is only active in the state of Bavaria. Together, CDU and CSU form one common parliamentary group in the federal parliament. SPD (Social Democratic Party of Germany) is a center-left party. FDP (Free Democratic Party) is a liberal party. The party Grüne are officially called the Bündnis 90/Die Grünen (Alliance '90/The Greens) and represent the ecological political party in Germany. Die Linke are the democratic socialist political party in Germany. The state parliament elections in Hesse of 2008 had to be repeated because no coalition could be formed by the leading party, SPD.

Figure 2. Aligned and misaligned counties over time



Notes: Aligned counties (darker shade) and misaligned counties (lighter shade), for the 16 German States, between 2004 and 2013. Aligned counties are those where the governing coalition is dominated by the same party as the one that in the same year dominates the government coalition at the State level. Misaligned counties are those where the governing coalition is dominated by a different party from the one that in the same year dominates the government coalition at the State level.

Figure 3. Difference in average home-State bond holdings between government-owned banks and cooperatives, aligned vs. misaligned counties

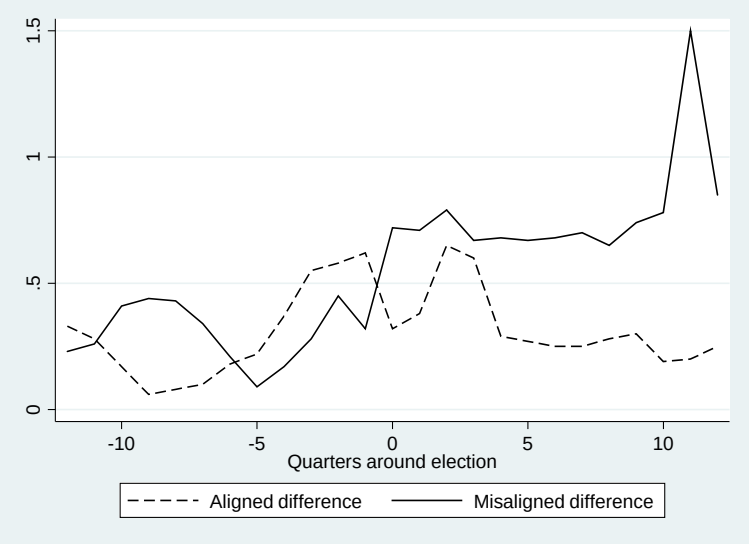


Figure 4. Average home-State bond holdings by government-owned banks, aligned vs. misaligned counties

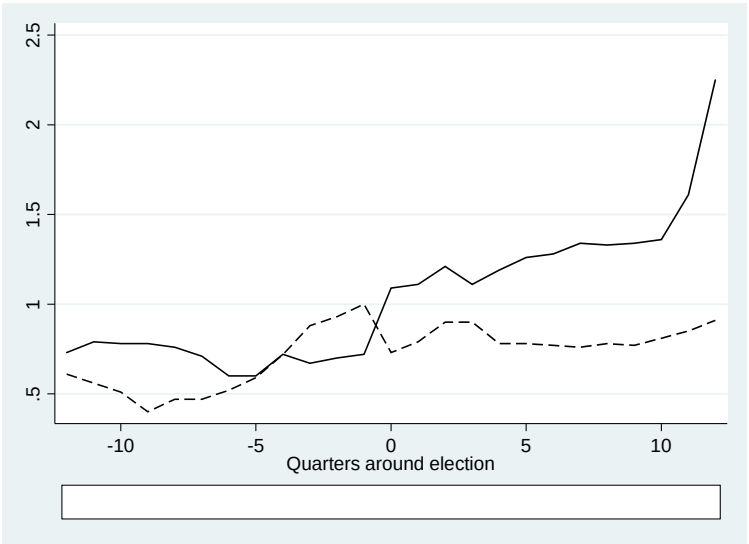


Table 1. Misaligned counties share

State	# counties	2005	2006	2007	2008	2009	2010	2011	2012	2013
Baden-Württemberg	44	20	20	20	20	32	32	100	100	100
Bayern	96	10	10	10	19	19	19	19	19	19
Berlin	1	0	0	0	0	0	0	0	0	0
Brandenburg	18	83	83	83	83	83	83	83	83	83
Bremen	2	0	0	0	0	0	0	0	0	0
Hamburg	1	0	0	0	0	0	0	0	0	0
Hessen	26	58	38	38	100	38	38	46	46	46
Mecklenburg-Vorpommern	18	94	94	94	94	94	94	44	44	44
Niedersachsen	46	50	52	52	52	52	52	54	54	46
Nordrhein-Westfalen	53	19	19	19	19	28	72	72	72	72
Rheinland-Pfalz	36	89	89	89	89	72	72	72	72	72
Saarland	6	17	17	17	17	17	17	17	17	17
Sachsen	29	14	14	14	7	3	3	3	3	3
Sachsen-Anhalt	24	8	8	8	8	4	4	4	4	4
Schleswig-Holstein	15	100	0	0	20	20	20	20	20	87
Thüringen	23	13	13	13	13	17	17	17	17	17

Notes: This table shows the share, in percentage points, of misaligned counties relative to all counties per State and per year, between 2004 and 2013. The second column provides the total number all counties per State. An accompanying summary of misaligned banks relative to all banks per State and over time is shown in Appendix Table 7.

Table 2. Cooperatives and government-owned banks: Aligned vs. misaligned localities

	Government-owned banks			Cooperatives		
Year	*Aligned*	*Misaligned*	*All*	*Aligned*	*Misaligned*	*All*
2005	149	293	442	350	877	1,227
2006	131	311	442	294	933	1,227
2007	131	310	441	293	932	1,225
2008	158	277	435	369	823	1,192
2009	148	281	429	326	827	1,153
2010	190	237	427	442	692	1,134
2011	229	195	424	590	525	1,115
2012	227	193	420	580	518	1,098
2013	227	188	415	608	466	1,074

Note: The table shows the number of banks per year separated according to ownership (Cooperatives vs. Government-owned) and to political alignment between the strongest party emerging from elections at the county level and the leading coalition party in the government in the respective State. Government-owned banks are regional savings banks. We exclude head institutions ("Landesbanken"). Cooperatives comprise regional cooperative banks as the control group. The sample is based on quarterly data between q4:2005 and q4:2013.

Table 3. Summary statistics

	Government-owned banks		Cooperatives		Difference in means	
	Mean	*SD*	*Mean*	*SD*	*Delta*	*p-value*
Dependent variables and treatment	38,102 observations		14,563 observations			
State bonds / Total assets	0.109	0.265	0.062	0.263	0.046	0.000
Federal bonds / Total assets	0.170	0.338	0.130	0.569	0.039	0.000
Other State bonds / Total assets	0.308	0.415	0.227	0.480	0.081	0.000
Stocks / Total assets	1.632	3.274	0.479	2.323	1.153	0.000
State bonds / Total assets (Nominal value)	0.107	0.260	0.061	0.255	0.046	0.000
State bonds / Total portfolio	0.448	1.179	0.265	1.100	0.183	0.000
State bonds / Bond portfolio	0.634	1.708	0.312	1.262	0.322	0.000
Government lending / Total assets	3.764	3.621	0.623	1.300	3.142	0.000
Bailout amount / Risk-weighted assets	2.599	4.453	5.091	8.613	-2.492	0.000
Misaligned	0.417	0.493	0.377	0.485	0.040	0.000
Quarterly bank-level controls						
Log (Total assets)	14.249	0.932	12.545	1.140	1.704	0.000
Share of stocks of total assets	6.563	5.773	3.240	5.329	3.323	0.000
Share of cash of total assets	1.840	0.722	1.971	0.787	-0.131	0.000
Share of corporate loans in total lending	21.145	7.215	13.321	9.463	7.824	0.000
Share of household lending in total lending	70.560	9.318	84.470	11.568	-13.910	0.000
Share of lending to foreigners	0.786	0.859	0.434	1.380	0.351	0.000
Annual bank-level controls						
Tier 1 capital ratio	11.157	3.767	11.016	3.656	0.141	0.000
Cost-income ratio	66.987	8.397	71.397	21.497	-4.409	0.000
Share of fee income	20.712	3.062	20.806	6.082	-0.095	0.077
Return on equity	18.530	6.738	15.653	9.034	2.878	0.000
Short-term assets / short-term liabilities	2.766	1.147	2.531	1.151	0.235	0.000
Share of non-performing loans	4.610	2.744	4.674	3.485	-0.064	0.049

Note: The table shows summary statistics of the main and alternative dependent variables, as well as annual and quarterly covariates for government-owned banks and for local cooperative banks, respectively. Government-owned banks are regional savings banks. Cooperatives comprise regional cooperative banks. The sample is based on quarterly data between q4:2005 and q4:2013. We report the market value of bonds, unless otherwise specified. RWA is short for risk-weighted assets. ROE is short of return on equity. NPL is short for non-performing loans. All variables are measured in percentage points, unless noted otherwise. The last two columns provide the difference in mean and the corresponding test statistics for significance from zero. For variable definitions and sources, see Appendix Table 1.

Table 4. Politics, banks, and portfolio adjustment: Home-state bonds

	State bonds / Total assets					
	(1)	(2)	(3)	(4)	(5)	(6)
	Baseline	Quarterly RHS	Annual RHS	Bank and quarter FE	County X quarter FE	
Misaligned × Government-owned	0.0400***	0.0410***	0.0399***	0.0369***	0.0277***	0.0195**
	(0.0056)	(0.0056)	(0.0055)	(0.0063)	(0.0078)	(0.0077)
Misaligned	0.0184***	0.0175***	0.0143***			
	(0.0032)	(0.0032)	(0.0030)			
Government-owned	0.0274***	0.0081**	0.0024			
	(0.0031)	(0.0041)	(0.0041)			
Quarterly control variables						
Log (Total assets)		0.0045***	0.0078***	-0.0294**	-0.0360*	-0.0126
		(0.0011)	(0.0011)	(0.0137)	(0.0190)	(0.0161)
Share of stocks of total assets		-0.0010***	-0.0011***	-0.0009**	-0.0022***	-0.0019***
		(0.0002)	(0.0002)	(0.0004)	(0.0006)	(0.0006)
Share of cash of total assets		-0.0087***	-0.0053***	0.0004	-0.0006	-0.0020
		(0.0014)	(0.0015)	(0.0016)	(0.0018)	(0.0018)
Share of corporate loans		-0.0004*	0.0006**	-0.0033***	-0.0028***	-0.0026***
in total lending		(0.0002)	(0.0003)	(0.0007)	(0.0008)	(0.0008)
Share of loans to households		-0.0013***	-0.0005*	-0.0007	-0.0000	-0.0002
in total lending		(0.0002)	(0.0002)	(0.0006)	(0.0007)	(0.0007)
Share of lending to foreigners		-0.0032***	-0.0024***	-0.0082***	-0.0149***	-0.0139***
		(0.0005)	(0.0005)	(0.0020)	(0.0030)	(0.0027)
Annual control variables						
Tier 1 capital ratio			0.0055***	0.0048***		0.0059***
			(0.0010)	(0.0012)		(0.0015)
Cost-income ratio			0.0003***	0.0000		-0.0001**
			(0.0001)	(0.0001)		(0.0000)

Share of fee income			-0.0012***	0.0015***		0.0026***
			(0.0003)	(0.0005)		(0.0006)
Return on equity			0.0016***	0.0011***		0.0017***
			(0.0003)	(0.0002)		(0.0002)
Short-term assets / short-term			0.0061***	0.0017		0.0032
liabilities			(0.0011)	(0.0019)		(0.0024)
Share of non-performing loans			-0.0005	0.0002		-0.0009
			(0.0004)	(0.0004)		(0.0006)
Observations	53,099	52,704	52,288	52,288	52,704	52,288
R-squared	0.009	0.012	0.023	0.469	0.574	0.596
Quarter FE	No	No	No	Yes	*Absorbed*	*Absorbed*
Bank FE	No	No	No	Yes	Yes	Yes
County × Quarter FE	No	No	No	No	Yes	Yes

Notes: This table presents OLS regression results of State bond holdings on bank-specific variables and on indicators of political connections. The dependent variable in all columns is the market value of the bank's total holdings of bonds issued by the State where the bank is headquartered, divided by the bank's gross total assets. *Misaligned* is an indicator variable equal to one if the party with the most votes obtained during the latest regional elections in the county where the bank is domiciled is different from the leading party in the coalition forming the State government after the latest State parliamentary elections. *Government-owned* is an indicator variable equal to one for banks that are ultimately owned by the local government, i.e. local savings banks. The sample period is q4:2005 until q3:2013. Standard errors are two-way clustered at the county and quarter level. */**/*** denote significance at the 10%/5%/1% levels, respectively. For variable definitions and sources, see Appendix Table 1.

Table 5. Politics, banks, and portfolio adjustment: Other securities

	Federal bonds	Other States' bonds	Stocks
	(1)	(2)	(3)
Misaligned × Government-owned	-0.0198	-0.0223	0.0592
	(0.0157)	(0.0159)	(0.1313)
Observations	52,288	52,288	52,288
R-squared	0.557	0.561	0.513
Bank FE	Yes	Yes	Yes
County × Quarter FE	Yes	Yes	Yes
Annual controls	Yes	Yes	Yes
Quarterly controls	Yes	Yes	Yes

Notes: This table presents falsification OLS regression results of State bond and other securities holdings on bank-specific variables and on indicators of political connections. The dependent variable is the market value of the bank's holdings of federal government debt as a share of total assets (column (1)); the market value of the bank's holdings of bonds issued by States other than the bank's home State, as a share of total assets (column (2)); the bank's holdings of common stock as a share of total assets (column (3)); and the market value of the bank's total holdings of bonds issued by the State where the bank is headquartered, divided by the bank's gross total assets (column (4)). *Misaligned* is an indicator variable equal to one if the party with the most votes obtained during the latest regional elections in the county where the bank is domiciled is different from the leading party in the coalition forming the State government after the latest State parliamentary elections. *Government-owned* is an indicator variable equal to one for banks that are ultimately owned by the local government, i.e. local savings banks. The regressions include all control variables from Table 4 (coefficients not reported for brevity). Standard errors are two-way clustered at the county and quarter level. */**/*** denote significance at the 10%/5%/1% levels, respectively. For variable definitions and sources, see Appendix Table 1.

Table 6. Politics, banks, and home-State bonds: Placebo elections

	State bonds / Total assets		
	(1)	(2)	(3)
	1 year lag	2 years lag	3 years lag
Misaligned × Government-owned	0.0277	0.0068	-0.1485
	(0.0477)	(0.0090)	(0.1120)
Observations	52,288	52,288	52,288
R-squared	0.665	0.665	0.665
Bank FE	Yes	Yes	Yes
County × Quarter FE	Yes	Yes	Yes
Annual controls	Yes	Yes	Yes
Quarterly controls	Yes	Yes	Yes

Notes: This table presents falsification regression results of State bond and other securities holdings on bank-specific variables and on indicators of political connections. The dependent variable in all columns is the bank's total holdings of bonds issued by the State where the bank is headquartered, divided by the bank's gross total assets. Column (1) replicates the regression from Table 4, column (6). Columns (1), (2), and (3) shows a specification with state elections and associated outcomes simulated to occur one, two, and three year earlier than the actual date, respectively. *Misaligned* is an indicator variable equal to one if the party with the most votes obtained during the latest regional elections in the county where the bank is domiciled is different from the leading party in the coalition forming the State government after the latest State parliamentary elections. *Government-owned* is an indicator variable equal to one for banks that are ultimately owned by the local government, i.e. local savings banks. The regressions include all control variables from Table 4 (coefficients not reported for brevity). Standard errors are two-way clustered at the county and quarter level. */**/*** denote significance at the 10%/5%/1% levels, respectively. For variable definitions and sources, see Appendix Table 1.

Table 7. Politics, banks, and home-State bonds: Sample selection and alternative channels

	State bonds / Total assets				
	(1)	(2)	(3)	(4)	(5)
	Propensity score matching	2007-08 Landesbanken shock	Tier 1 equity	Non-performing loans	State ratings
Misaligned × Government-owned	0.0297***	0.0154**	0.0233**	0.0225***	0.0318***
	(0.0086)	(0.0079)	(0.0094)	(0.0084)	(0.0106)
Misaligned					
Shock		-0.0082**	0.0237***	0.7550	-0.0214**
		(0.0039)	(0.0043)	(0.000)	(0.0091)
Shock × Misaligned		0.0159**	-0.0032	0.1666	0.0751***
		(0.0068)	(0.0096)	(0.000)	(0.0194)
Shock × Government-owned			0.0119	-0.0139	0.0529***
			(0.0091)	(0.0088)	(0.0127)
Shock × Misaligned × Government-owned			0.0028	-0.0107	-0.0343**
			(0.0141)	(0.0176)	(0.0143)
Observations	40,547	52,288	52,288	52,300	52,288
R-squared	0.636	0.596	0.595	0.577	0.596
Bank FE	Yes	Yes	Yes	Yes	Yes
County × Quarter FE	Yes	Yes	Yes	Yes	Yes
Quarter FE	No	No	No	No	No
Annual controls	Yes	Yes	Yes	Yes	Yes
Quarterly controls	Yes	Yes	Yes	Yes	Yes

Notes: This table presents OLS regression results of State bond holdings on bank-specific variables and on indicators of political connections. The dependent variable in all columns is the market value of the bank's total holdings of bonds issued by the State where the bank is headquartered, divided by the bank's gross total assets. *Misaligned* is an indicator variable equal to one if the party with the most votes obtained during the latest regional elections in the county where the bank is domiciled is different from the leading party in the coalition forming the State government after the latest State parliamentary elections. *Government-owned* is an indicator variable equal to one for banks

that are ultimately owned by the local government, i.e. local savings banks. In column (1) we show results for a sample based on a one-to-one propensity score matching between local savings banks and cooperative banks based on both quarterly and annual control variables. In column (2), we restrict the sample to local government-owned banks only. *Shock* corresponds to an indicator equal to one if a local savings bank was tied to a Landesbank affected by the fallout of the US subprime mortgage crisis (column (3)); to the bank's Tier 1 equity (column (4)); to the bank's share of non-performing loans (column (5)); and to the rating—by Moodys and/or Standard & Poors—of the respective German State in which the bank is domiciled (column (6)). The regressions include all control variables from Table 4 (coefficients not reported for brevity). Standard errors are two-way clustered at the county and quarter level. */**/*** denote significance at the 10%/5%/1% levels, respectively. For variable definitions and sources, see Appendix Table 1.

Table 8. Politics, banks, and home-State bonds: Excluding cooperatives

	(1)	(2)	(3)	(4)	(5)
Misaligned	0.0607***	0.0580***	0.0599***	0.0320***	0.0092**
	(0.0053)	(0.0053)	(0.0052)	(0.0065)	(0.0050)
Quarterly control variables					
Log (Total assets)		-0.0085***	-0.0016	-0.0680***	-0.0314
		(0.0028)	(0.0029)	(0.0218)	(0.0210)
Share of stocks of total assets		-0.0009**	-0.0012***	-0.0032***	-0.0011
		(0.0004)	(0.0005)	(0.0008)	(0.0008)
Share of cash of total assets		-0.0058**	-0.0084***	-0.0026	-0.0047
		(0.0029)	(0.0031)	(0.0032)	(0.0031)
Share of corporate loans in total lending		0.0011***	0.0029***	-0.0031***	0.0012
		(0.0004)	(0.0004)	(0.0011)	(0.0012)
Share of loans to households in total lending		0.0008***	0.0027***	0.0021**	0.0041***
		(0.0003)	(0.0004)	(0.0009)	(0.0009)
Share of lending to foreigners		0.0020	0.0076***	-0.0025	-0.0036
		(0.0025)	(0.0026)	(0.0039)	(0.0037)
Annual control variables					
Tier 1 capital ratio			0.0045***	0.0022	0.0069***
			(0.0011)	(0.0017)	(0.0016)
Cost-income ratio			0.0034***	0.0053***	0.0050***
			(0.0006)	(0.0012)	(0.0013)
Share of fee income			-0.0038***	0.0047***	0.0011
			(0.0009)	(0.0015)	(0.0014)
Return on equity			0.0049***	0.0073***	0.0051***
			(0.0007)	(0.0015)	(0.0015)
Short-term assets / short-term liabilities			0.0123***	0.0008	0.0002
			(0.0025)	(0.0034)	(0.0034)
Share of non-performing loans			-0.0037***	0.0025**	-0.0018

			(0.0009)	(0.0012)	(0.0015)
Observations	14,316	14,235	14,186	14,186	14,186
R-squared	0.012	0.014	0.026	0.423	0.455
Bank FE	No	No	No	Yes	Yes
Quarter FE	No	No	No	Yes	*Absorbed*
State × Quarter FE	No	No	No	No	Yes

Notes: This table presents OLS regression results of State bond holdings on bank-specific variables and on indicators of political connections. The dependent variable in all columns is the market value of the bank's total holdings of bonds issued by the State where the bank is headquartered, divided by the bank's gross total assets. *Misaligned* is an indicator variable equal to one if the party with the most votes obtained during the latest regional elections in the county where the bank is domiciled is different from the leading party in the coalition forming the State government after the latest State parliamentary elections. The sample period is q4:2005 until q3:2013. Standard errors are two-way clustered at the county and quarter level. */**/*** denote significance at the 10%/5%/1% levels, respectively. For variable definitions and sources, see Appendix Table 1.

Table 9. Politics, banks, and home-State bonds: Contiguous counties

	State bonds / Total assets		
	(1)	(2)	(3)
	All banks	Excluding Cooperatives	Propensity matching
Misaligned × Government-owned	0.0349***		0.0440***
	(0.0098)		(0.0109)
Misaligned		0.0350***	
		(0.0100)	
Observations	22,334	6,127	17,383
R-squared	0.411	0.450	0.489
Quarter FE	Yes	Yes	Yes
Bank FE	Yes	Yes	Yes
Contiguous FE	Yes	Yes	Yes
Annual controls	Yes	Yes	Yes
Quarterly controls	Yes	Yes	Yes

Notes: This table presents OLS regression results of State bond holdings on bank-specific variables and on indicators of political connections. The regressions are performed on the sub-sample of banks residing in contiguous counties, i.e., counties that border each other across State borders. The dependent variable in all columns is the market value of the bank's total holdings of bonds issued by the State where the bank is headquartered, divided by the bank's gross total assets. Column (1) shows results for all banks residing in contiguous counties. In column (2), we exclude all cooperative banks, and compare local savings banks across contiguous counties across state borders. Column (3) specifies instead the matched sample of savings and cooperative banks. *Misaligned* is an indicator variable equal to one if the party with the most votes obtained during the latest regional elections in the county where the bank is domiciled is different from the leading party in the coalition forming the State government after the latest State parliamentary elections. *Government-owned* is an indicator variable equal to one for banks that are ultimately owned by the local government, i.e. local savings banks. The regressions include all control variables from Table 4 (coefficients not reported for brevity). Standard errors are two-way clustered at the county and quarter level. */**/*** denote significance at the 10%/5%/1% levels, respectively. For variable definitions and sources, see Appendix Table 1.

Table 10. Politics, banks, and home-State bonds: Robust dependent variable

	State bonds / Total assets			Gov. lending / Total assets	Growth State bonds / Total assets	Growth Gov. lending / Total assets
	(1)	(2)	(3)	(4)	(5)	(6)
	Nominal	Portfolio	All bonds			
Misaligned × Government-owned	0.0195**	0.1337***	0.2026***	0.0536***	5.1986*	6.7892*
	(0.0076)	(0.0367)	(0.0491)	(0.0153)	(2.7854)	(3.6804)
Observations	52,288	52,288	51,894	52,288	7,392	38,638
R-squared	0.596	0.623	0.603	0.983	0.728	0.347
Bank FE	Yes	Yes	Yes	Yes	Yes	Yes
County × Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Annual controls	Yes	Yes	Yes	Yes	Yes	Yes
Quarterly controls	Yes	Yes	Yes	Yes	Yes	Yes

Notes: This table presents OLS regression results of robust proxies for State bond holdings on bank-specific variables and on indicators of political connections. Columns (1)—(3) of the table show estimation results for alternative numeraire choices regarding the dependent variable, the bank's total holdings of bonds issued by the State where the bank is headquartered, divided by the bank's gross total assets. Column (1) shows result when measuring the State debt shares of total assets based on nominal instead of market values of State bonds. Column (2) uses the share of State bonds relative to the bank's securities portfolio. Column (3) shows results for the share of own State bonds relative to the fixed-income securities portfolio of the bank only. Column (4) shows the results for loans to the government as a share of total assets. Column (5) shows the results for quarter-on-quarter growth in the bank's total holdings of bonds issued by the State where the bank is headquartered, divided by the bank's gross total assets. Column (6) shows the results for quarter-on-quarter growth in the bank's total loans to the government as a share of total assets. *Misaligned* is an indicator variable equal to one if the party with the most votes obtained during the latest regional elections in the county where the bank is domiciled is different from the leading party in the coalition forming the State government after the latest State parliamentary elections. *Government-owned* is an indicator variable equal to one for banks that are ultimately owned by the local government, i.e. local savings banks. The regressions include all control variables from Table 4 (coefficients not reported for brevity). Standard errors are two-way clustered at the county and quarter level. */**/*** denote significance at the 10%/5%/1% levels, respectively. For variable definitions and sources, see Appendix Table 1.

Table 11. Politics, banks, and home-State bonds: Robust alignment

	State bonds / Total assets				
	Misalignment via any election		Misalignment via State elections	Misalignment via county elections	
	(1)	(2)	(3)	(4)	(5)
Misaligned × Government-owned		0.0462**		0.0005	
		(0.0226)		(0.0305)	
Misaligned Q1 × Government-owned	0.0196		0.0372*		-0.0327
	(0.0149)		(0.0205)		(0.0207)
Misaligned Q2 × Government-owned	0.0379**		0.0433**		-0.0024
	(0.0170)		(0.0203)		(0.0287)
Misaligned Q3 × Government-owned	0.0492***		0.0423**		0.0460
	(0.0170)		(0.0194)		(0.0313)
Misaligned Q4 × Government-owned	0.0402***		0.0304*		0.0434
	(0.0152)		(0.0168)		(0.0289)
Misaligned Q5 × Government-owned	0.0312*		0.0270		0.0377
	(0.0177)		(0.0187)		(0.0395)
Misaligned Q6 × Government-owned	0.0364**		0.0236		0.0910**
	(0.0180)		(0.0194)		(0.0455)
Misaligned Q7 × Government-owned	0.0340*		0.0262		0.0629
	(0.0191)		(0.0216)		(0.0475)
Misaligned Q8 × Government-owned	0.0223		0.0240		0.0242
	(0.0173)		(0.0206)		(0.0441)
Misaligned Q9+ × Government-owned	-0.0049		0.0143		-0.0472**
	(0.0098)		(0.0110)		(0.0207)
Observations	52,288	46,338	46,338	35,837	35,837
R-squared	0.596	0.465	0.458	0.473	0.473
Bank FE	Yes	Yes	Yes	Yes	Yes
County × Quarter FE	Yes	Yes	Yes	Yes	Yes
Annual controls	Yes	Yes	Yes	Yes	Yes
Quarterly controls	Yes	Yes	Yes	Yes	Yes

Notes: This table presents OLS regression results of State bond holdings on bank-specific variables and on indicators of political connections. The dependent variable in both columns is the market value of the bank's total holdings of bonds issued by the State where the bank is headquartered, divided by the bank's gross total assets. *Misaligned* is an indicator variable equal to one if the party with the most votes obtained during the latest regional elections in the county where the bank is domiciled is different from the leading party in the coalition forming the State government after the latest State parliamentary elections. In columns (2) and (3), only misalignments occurring as a result of State elections are counted. In columns (4) and (5), only misalignments occurring as a result of local elections are counted. In both cases, the alternative type of misalignment is dropped from the data. *Misaligned Qi* is an indicator variable equal to one if *Misaligned* equals 1 *i* quarters after any (column (1)), after State (column (3)), or after local (column (5)) elections. Government-*owned* is an indicator variable equal to one for banks that

are ultimately owned by the local government, i.e. local savings banks. The regressions include all control variables from Table 4 (coefficients not reported for brevity). Standard errors are two-way clustered at the county and quarter level. */**/*** denote significance at the 10%/5%/1% levels, respectively. For variable definitions and sources, see Appendix Table 1.

Table 12. The cost of political misalignment: Incidence of bank bailouts

	Bailout amount / Risk-weighted assets				
	(1)	(2)	(3)	(4)	(5)
Misaligned × Government-owned	-8.3773***	-6.0893*	-11.2087**	-7.9961*	-9.6961*
	(3.1863)	(3.4311)	(4.8486)	(4.4583)	(6.0597)
Misaligned	-0.1375	1.9545	-0.1872	2.6558	3.8890
	(1.0663)	(1.6274)	(1.4381)	(2.1745)	(3.6504)
Government-owned	0.8644	0.9545	1.0928	1.3307	2.4719
	(1.7471)	(2.6252)	(2.5125)	(3.2455)	(4.7266)
Observations	131	131	131	131	131
R-squared	0.374	0.446	0.408	0.455	0.493
State fixed effects	No	Yes	No	Yes	*Absorbed*
Quarter fixed effects	No	No	Yes	Yes	*Absorbed*
State × Quarter FE	No	No	No	No	Yes
Annual controls	Yes	Yes	Yes	Yes	Yes
Quarterly controls	Yes	Yes	Yes	Yes	Yes

Notes: This table presents OLS regression results of an indicator of bailout intensity on bank-specific variables and on indicators of political connections. The dependent variable is the amount of capital support provided to banks as a share of risk-weighted assets. These capital support measures constitute the same bailouts analyzed in Dam and Koetter (2012) and Bian et al. (2013). *Misaligned* is an indicator variable equal to one if the party with the most votes obtained during the latest regional elections in the county where the bank is domiciled is different from the leading party in the coalition forming the State government after the latest State parliamentary elections. *Government-owned* is an indicator variable equal to one for banks that are ultimately owned by the local government, i.e. local savings banks. The regressions include all control variables from Table 4 (coefficients not reported for brevity). Standard errors are two-way clustered at the state and quarter level. */**/*** denote significance at the 10%/5%/1% levels, respectively. For variable definitions and sources, see Appendix Table 1.

Appendix Table 1. Variable definitions and sources

Variable	Unit	Definition	Source
Dependent variables and treatment			
State bonds / Total assets	%	Market value according to German accounting rules of state bonds where the bank is headquartered divided by average quarterly gross assets.	Bista and SHS
State bonds / Total assets (Nominal value)	%	Nominal value of state bonds where the bank is headquartered divided by average quarterly gross assets.	Bista and SHS
State bonds / Total portfolio	%	Market value of state bonds where the bank is headquartered according to German accounting rules divided by the aggregate market value of the entire equity and fixed income security portfolio.	Bista and SHS
State bonds / Bond portfolio	%	Market value of state bonds where the bank is headquartered according to German accounting rules divided by the aggregate market value of the entire equity and fixed income security portfolio.	Bista and SHS
Federal bonds / Total assets	%	Market value according to German accounting rules of federal government bonds divided by average quarterly gross assets.	Bista and SHS
Other States' bonds / Total assets	%	Market value according to German accounting rules of any sub-federal, state bonds irrespective of where the bank is headquartered divided by average quarterly gross assets.	Bista and SHS
Stocks / Total assets	%	Market value according to German accounting rules of equity securities divided by average quarterly gross assets.	Bista and SHS
Bailout amount / Risk-weighted assets	%	Capital and equity warrant support by local deposit and institution insurance schemes relative to risk-weighted assets.	BBK
Misaligned	0/1	An indicator equal to one if the strongest party in the county is different from the leading political party in the State government.	SSO
Defector	0/1	An indicator equal to one if the strongest party in the county is different from the leading party in the majority of the counties in the State.	SSO

Government-owned	0/1	An indicator equal to one if the bank is owned by the local government.	BBK
Quarterly bank-level controls			
Log (Total assets)	€	The logarithm of total assets, measured in €.	Bista
Share of stocks of total assets	%	The share of stocks relative to total assets.	Bista
Share of cash of total assets	%	The sum of cash, vault cash, and notes relative to total assets.	Bista
Share of corporate loans in total lending	%	Corporate credit relative to total non-monetary financial institutions (MFI) credit.	Bista
Share of household lending in total lending	%	Household credit relative to total non-MFI credit.	Bista
Share of government lending	%	Domestic government borrowing relative to total non-MFI credit.	Bista
Share of lending to foreigners	%	Foreign non-MFI counterparties relative to total non-MFI credit.	Bista
Annual bank-level controls			
Tier 1 capital ratio	%	Core capital divided by risk-weighted assets.	BBK
Cost-income ratio	%	Administrative expenses for personnel, depreciation of fixed assets, rent, and other overhead relative to operating result.	BBK
Share of fee income	%	Revenues from fees relative to total operating income.	BBK
Return on equity	%	Operating return relative to gross equity.	BBK
Ratio of ST assets to ST liabilities	%	Liquid assets with a maturity of up to one month relative to liabilities with a maturity of up to one month.	BBK
Share of non-performing loans	%	Audited loans with identified need for value correction relative to total loans.	BBK

Notes: BBK is the acronym for Deutsche Bundesbank, the German Central Bank. Bista abbreviates the monthly balance sheet statistic of BBK. SHS abbreviates the security holdings statistic (WP-Invest) of BBK. SSO abbreviates State Statistical Offices.

Appendix Table 2. Timing and existence of State ratings

	Moodys		Standard and Poors	
	Rating	*Date*	*Rating*	*Date*
Baden-Württemberg	Aaa	14.12.1999	AAA	06.03.2012
Bayern	Aaa	20.01.2000	AAA	19.01.2012
Berlin	Aa1	15.12.2006		
Brandenburg	Aa1	15.12.2006		
Bremen				
Hamburg				
Hessen			AA	29.11.2005
Mecklenburg-Vorpommern				
Niedersachsen				
Nordrhein-Westfalen	Aa1	04.03.2014	AA-	20.12.2004
Rheinland-Pfalz				
Saarland				
Sachsen			AAA	19.01.2012
Sachsen-Anhalt	Aa1	15.03.2007	AA+	16.12.2010
Schleswig-Holstein				
Thüringen				

Notes: This table reproduces ratings reported in "Issuer Guide Deutsche Bundesländer 2015" (Nord LB). Only State ratings as opposed to occasional bond issues are considered. Quarters before the reported time of rating are considered not rated. If the rating was conducted prior to the start of the sample in q4:2005, we consider the rating as of the start of our sample. Ratings are converted into 16 categories in ascending order of quality, which corresponds to the number of prime ratings by both rating agencies.

Appendix Table 3. Banks with and without State debt holdings

	Local savings banks		Local cooperatives	
	Yes	*No*	*Yes*	*No*
2005	88	354	86	1141
2006	96	347	88	1140
2007	89	353	73	1154
2008	79	357	65	1127
2009	103	326	141	1012
2010	117	310	169	965
2011	128	297	171	944
2012	137	284	177	921
2013	154	261	181	893

Notes: This table shows the number of local savings and cooperative banks that hold and do not hold sub-sovereign debt from the State where they are headquartered.

Appendix Table 4. Gross total assets and State bonds

Banking group	Variable	Mean	Median	SD	N
Government-owned	Gross total assets in Euro	2,443,834,572	1,515,403,456	3,317,372,052	14,262
	Own State debt in Euro (market value)	2,534,212	0	7,588,939	14,262
	Own State debt in Euro (nominal value)	2,495,484	0	7,531,873	14,262
Cooperative banks	Gross total assets in Euro	578,379,025	279,799,504	1,423,717,098	38,302
	Own State debt in Euro (market value)	503,580	0	3,069,191	38,302
	Own State debt in Euro (nominal value)	494,847	0	3,041,425	38,302

Notes: This table shows descriptive statistics for the components of the main dependent variable in levels. The data are measured in Euros and separated by banking group. The market value of sub-sovereign debt denotes the value of the financial assets according to the German accounting rules. The nominal value depicts the face value of fixed income instruments.

Appendix Table 5. Politics, banks, and sub-sovereign debt: Non-linear regression models

	State bonds / Total assets			
	(1)	(2)	(3)	(4)
	Tobit	Poisson	Logit	Probit
Misaligned × Government-owned	0.0430***	0.1473***	0.2078**	0.1639***
	(0.0064)	(0.0445)	(0.0892)	(0.0499)
Observations	52,288	52,288	15,306	52,288
Bank FE (Or RE in probit)	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes
County FE	No	Yes	No	Yes
Annual controls	Yes	Yes	Yes	Yes
Quarterly controls	Yes	Yes	Yes	Yes

This table presents results from panel Tobit (column (1)), zero-inflated Poisson (column (2)), panel Logit (column (3)), and panel Probit (column (4)) regressions of State bond holdings on bank-specific variables and on indicators of political connections. The dependent variable in all columns is the bank's total holdings of bonds issued by the State where the bank is headquartered, divided by the bank's gross total assets. *Misaligned* is an indicator variable equal to one if the party with the most votes obtained during the latest regional elections in the county where the bank is domiciled is different from the leading party in the coalition forming the State government after the latest State parliamentary elections. *Government-owned* is an indicator variable equal to one for banks that are ultimately owned by the local government, i.e. local savings banks. The regressions include all control variables from Table 4 (coefficients not reported for brevity). Standard errors are clustered at the bank level. */**/*** denote significance at the 10%/5%/1% levels, respectively. For variable definitions and sources, see Appendix Table 1.

Appendix Table 6. Excluding single-county States and Bremen

	State bonds / Total assets				
	(1)	(2)	(3)	(4)	(5)
	Baseline	Excluding Berlin	Excluding Bremen	Excluding Hamburg	Excluding all three
Misaligned × Government-owned	0.0195**	0.0197**	0.0196**	0.0194**	0.0197**
	(0.0077)	(0.0077)	(0.0077)	(0.0077)	(0.0077)
Observations	52,288	52,189	52,123	52,024	51,760
R-squared	0.596	0.596	0.595	0.596	0.596
Bank FE	Yes	Yes	Yes	Yes	Yes
County × Quarter FE	Yes	Yes	Yes	Yes	Yes
Annual controls	Yes	Yes	Yes	Yes	Yes
Quarterly controls	Yes	Yes	Yes	Yes	Yes

Notes: This table presents OLS regression results of State bond holdings on bank-specific variables and on indicators of political connections. Column (1) replicates the baseline result from column (6) in Table 4. The three subsequent columns exclude one by one those states with only one county where no within-state variation of the *Misaligned* indicator is possible. Column (5) excludes all three city-states: Berlin, Bremen, and Hamburg. The dependent variable in all columns is the market value of the bank's total holdings of bonds issued by the State where the bank is headquartered, divided by the bank's gross total assets. *Misaligned* is an indicator variable equal to one if the party with the most votes obtained during the latest regional elections in the county where the bank is domiciled is different from the leading party in the coalition forming the State government after the latest State parliamentary elections. *Government-owned* is an indicator variable equal to one for banks that are ultimately owned by the local government, i.e. local savings banks. The sample period is q4:2005 until q3:2013. Standard errors are two-way clustered at the county and quarter level. */**/*** denote significance at the 10%/5%/1% levels, respectively. For variable definitions and sources, see Appendix Table 1.

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