# Political Quid Pro Quo In Financial Markets \*

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#### Abstract

Formally independent private banks engage in an exchange of favor with local politicians to gain access to politically-controlled rents. Using French credit registry for 2007–2017, we find that banks grant favors to local politicians by increasing credit granted to the private sector by 9%–14% the year a powerful incumbent faces a contested election. As politicians return the favor, banks that grant more credit to private firms in election years gain market share in the profitable market for loans to local public entities after the election, when the incumbent is reelected. Thus, when politicians control the allocation of rents, *formal* independence does not ensure the private sector's *effective* independence from politically motivated distortions.

Keywords: politics and banking; moral suasion; local government financing

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# 1 Introduction

The capacity of politicians to allocate large rents can distort the behavior of firms, as it creates incentives for them to accommodate politicians' needs in order to gain access to those rents. There are many ways firms can help politicians, one of which is by boosting short-term economic activity before elections to increase the reelection chances of incumbent politicians. If reelected, the incumbents can reciprocate by granting those firms access to the rents under their control. One well-known example is local public markets and government contracts, which is precisely why in developed economies, such markets have become heavily regulated by public procurement codes that promote competition.

One main contribution of this paper is to uncover a large and profitable market controlled entirely by politicians that regulators have overlooked: the market for bank loans to local public entities (e.g., local governments, public hospitals, schools). At the exception of the US, most local governments in large developed and developing countries borrow through banks, with bank loans accounting for 80% of local government debt on average.<sup>1</sup> This multi-billion-dollar market is highly profitable because loans to local governments are as safe as government bonds yet offer higher interest rate.<sup>2</sup> However, this market is excluded from public procurement codes and its access is controlled by local politicians.

These three characteristics (size, profitability, and discretionary allocation) are important because they highlight the need to rethink the possibility of distortions due to influence-seeking behaviors and outdated banking regulations. The focus of banking regulation has traditionally been on enforcing the formal independence of banks from politicians. The rationale being that if a politician directly controls the allocation of credit, she will naturally be tempted to distort the credit allocation for

<sup>1.</sup> Data from OECD/UCLG World Observatory on Subnational Government Finance and Investment. Large developed and developing countries are the 35 largest countries by total government debt. The US is an outlier: loans represent only 5% of local government debt. This segment however experienced a fivefold increase over 2000-2016.

<sup>2.</sup> In many countries, public entities enjoy an explicit guarantee by the central government. In this respect, the United States—where, for instance, municipalities can default and go bankrupt—is more of an exception. In most developed countries, those outcomes are not possible. For example, local governments in France cannot go bankrupt; in the event of an unsustainable deficit, they are placed under the supervision of the central government who cuts local spending and increases local taxes until creditors are repaid. This procedure is extremely rare, however: it was applied to fewer than 15 of 36,000 municipalities in 2016.

political gain (e.g., to improve his reelection prospects).<sup>3</sup>

Our paper provides evidence that a formal independence is not enough to prevent politically-motivated distortion in the allocation of credit to firms in the absence of adequate public procurement regulation of the profitable public entity loan market, as the control of the access to this valuable market by politicians creates room for quid pro quo. We show that formally independent, profit maximizing banks alter their lending decisions to bestow favors on politicians (the quid), and gain preferential access to the local public entity loan market in exchange when the incumbent politicians are reelected (the pro quo). We exploit data from the French credit registry for the period 2007–2017 in combination with newly hand-collected data on French local elections and politicians. These data allow us to classify political incumbents along two dimensions: their political influence and the competitiveness of their elections. The French credit registry also tracks loans granted by banks to local public entities.

Our study yields three main findings. First, banks increase their lending to firms within a constituency before an election especially when the political incumbent is influential, the election is contested, and banks have previously participated in the local public entity loan market. Second, we find that banks systematically target this additional credit at firms in declining industries and with high funding needs before the election. Third, banks that lend more to firms prior to an election see their market share of the local public entity loan market increase if the incumbent is reelected.

To inform the identification strategy, we first present a framework based on a "quid pro quo" political model of the interplay between private banks and politicians (Grossman and Helpman, 2001) in which politicians help firms in return for personal benefits such as votes. In this setting, the expectations are that banks will distort their credit policy when: (i) the political incumbent faces a close election; (ii) she has a high level of influence over the allocation of public entity debt; and (iii) banks are both willing and able to participate in the market for loans to local public entities.

Therefore, our identification strategy relies on three sources of variation. The first is variation in politicians' incentives to gain a favor, which is linked in turn with variation in time due to the electoral cycle and with variation across constituencies in the intensity of political competition. The second source of variation is across

<sup>3.</sup> For the role of government-owned banks in developing countries, see Dinç (2005); Khwaja and Mian (2005); Claessens, Feijen, and Laeven (2008); Cole (2009); Carvalho (2014); Fonseca and Matray (2022). For developed countries, see Sapienza (2004). For the role of politicians chairing a supervisory board, see Bian, Haselmann, and Vig (2017); Haselmann, Schoenherr, and Vig (2018).

constituencies in politicians' influence over the local public entity loan market, and the third—within time and constituencies—is variation across banks in their incentives to participate in the public entity loan market.

We assess political competition by identifying as "contested" those constituencies for which the political incumbent is of a different party than her predecessor, or for which the upcoming election result is close. What is relevant for banks in the return of favors is the politician's influence over the allocation of public entity loans; we therefore focus on "powerful" politicians, defined as those who have been in office for at least three terms and who belong to the same party as other local politicians heading the main debt-taking local government entities. To obtain variation across banks for a given constituency and time, we identify a bank's greater likelihood to participate in the market for public entity debt based on the presence of public entity loans in its portfolio.

We start by showing that, in an election year, private banks' credit to the private sector in constituencies where the election is contested is 9% higher if the political incumbent is powerful. This results does not distinguish whether higher credit in contested constituencies is driven by changes in credit supply or in credit demand. The latter may reflect, for instance, implementation of demand-side policies by powerful contested incumbents or the uncertainty created by an upcoming contested election.

We show that the higher credit to private firms we observe before contested election is driven by a change in credit supply, by exploiting *within* constituency-year, *across* bank variations. This allows us to include constituency-by-time fixed effects, thereby controlling for unobserved time-varying heterogeneity across constituencies (e.g., differences in local economic growth, local policies, and uncertainty). We find that the increase in credit to the private sector in constituencies with contested powerful politicians is driven exclusively by banks holding public entity debt on their balance sheets. These banks increase their supply of credit to the local economy by 14% relative to banks in the same constituency but with no government debt on their respective balance sheets. By contrast, the credit supply of banks *not* involved in the public entity loan market is statistically and economically indistinguishable whether these banks are in contested or non-contested constituencies.

Our second set of results identify which firms benefit more from such credit expansion. Consistent with the idea that banks involved in the public entity loan market increase their credit to private firms to increase the reelection chances of the powerful contested incumbent in the short-run, we find that these banks target their increase in credit supply to firms operating in sectors that are more dependent on short-term financing (i.e., firms with more working capital and higher interest repayments relative to revenues) and in declining sectors (i.e., sectors characterized by a higher probability of bankruptcy and lower value-added per asset).

Our empirical strategy allows us to control for constituency-by-time and bank-bytime fixed effects. In this most stringent specification, our results cannot be explained by higher credit demand in contested constituencies, or by bank specific shocks (e.g., funding cost shocks) to banks located in such contested constituencies. Our identifying assumption is that banks involved in the public entity loan market are not differentially exposed to local shocks. We provide direct evidence in favor of our assumption by showing that credit of involved banks does not comove more with local business cycles in general, even in constituencies where the politicians are powerful.

Finally, we examine whether politicians reward banks that increased their credit supply during an election year by providing post-election access to the market for loans to local public entities. For each constituency and each election, we build a measure of a bank's support to the incumbent's reelection effort defines as the additional supply of credit during the election year (after removing baseline heterogeneity across constituencies and banks). We then relate this measure to changes in the bank's amount of loans to local public entities in that constituency. Regression results indicate that more supportive banks see an increase in their share of the market for loans to local public entities in the constituency after an election in which the political incumbent is reelected. However, if the incumbent loses then the more supportive banks see their market shares decline. This result is consistent with banks that supported the incumbent being rewarded if she is re-elected and, otherwise, being punished by the newly elected politician. Although these effects hold when we consider all loans to local public entities, we demonstrate that they are solely driven by loans to the local public entities controlled by local political incumbents—and not by loans to entities located in the same constituencies but controlled by the central government.

Our findings have two broad implications. First, they underscore the need for regulators to go beyond easily observable measures of independence—that is, because neither privatizing government-owned banks nor banning politicians from banks' credit committees will guarantee true independence if politicians retain unchecked influence over the allocation of access to profitable markets. Discretionary access to rents will create distortions in the behavior of banks (and of private firms more generally) as they seek favors from politicians. It follows that we must adopt a broader perspective when designing regulations and, in particular, must control more strictly the mechanisms by which loans are allocated to local public entities.

Second, our results point to real consequences for the allocation of credit. If politicians systematically direct credit toward declining sectors, thus hampering both the reallocation of resources to more productive firms and the process of creative destruction, then we can expect economic growth to be affected in the long run.

**Related literature.** Our work is perhaps most directly related to the literature on political business cycles (Nordhaus, 1975), which emphasizes that political incumbents who directly control banks have incentives to manipulate credit for the purpose of affecting election outcomes—in both emerging and developed countries where banks are state owned (Sapienza, 2004; Dinç, 2005; Khwaja and Mian, 2005; Claessens, Feijen, and Laeven, 2008; Cole, 2009; Carvalho, 2014; Bircan and Saka, 2019) as well as in cases of bailed-out banks (e.g., Chavaz and Rose, 2018) or banks whose supervisory board chairman is a politician (Bian, Haselmann, and Vig, 2017; Englmaier and Stowasser, 2017; Haselmann, Schoenherr, and Vig, 2018; Koetter and Popov, 2019).<sup>4</sup> Yet regardless of whether banks are fully state owned or directly supervised by a politician, the policy implication is the same: formal independence should be enough to prevent politically motivated credit cycles.

Our main contribution here is to uncover a political credit cycle for formally *independent* banks when campaign contributions are not allowed, other forms of direct lobbying and spending are extremely restricted, and bailouts are not necessary. This finding is critical for two reasons. First, in most countries, private banks account for most of the credit extended to corporations. Second, the implication is that addressing only the formal mechanisms of governance will not be enough to ensure the needed separation between politicians and firms.

This paper contributes also to the literature on favors between politicians and business elites. The bulk of that literature focuses on corruption, which is illegal, or on campaign contributions and lobbying, which are heavily regulated (if not banned)

<sup>4.</sup> The German savings bank sector is a good example of this phenomenon, which is associated with political credit cycles or pure rent extraction that favors the local business elite connected to politicians—even if it seems the politicians themselves receive nothing in return.

in most developed countries outside the United States.<sup>5</sup> Scholars have studied various forms of political connections, such as former employment in government (Faccio (2006)), geographical ties (Faccio and Parsley (2009)), party affiliation (Ferguson and Voth (2008)), and educational ties (Nguyen and Nielsen (2010); Cohen and Malloy (2014); Bertrand, Kramarz, Schoar, and Thesmar (2018)).

Several papers have identified specific channels through which politicians can extend favors to firms. Examples include: preferential government economic policy, such as government bailouts (Brown and Dinç, 2005; Faccio, Masulis, and McConnell, 2007); stimulus funding (Duchin and Sosyura, 2012; Adelino and Dinc, 2014; Bian, Haselmann, Kick, and Vig, 2018); and, more broadly, legislation on issues of concern to firms in the politicians' districts (Mian, Sufi, and Trebbi, 2010; Cohen and Malloy, 2014). Politicians have also been found to reciprocate by enabling easier access to government contracts—in the United States (Goldman, Rocholl, and So, 2013; Tahoun, 2014; Faccio and Hsu, 2017), in Denmark (Amore and Bennedsen, 2013), and in South Korea (Schoenherr, 2019)—and by delaying legal enforcement as well as by less stringent regulatory enforcement in the banking industry (Akey, Dobridge, Heimer, and Lewellen, 2018; Akey, Heimer, and Lewellen, 2018), which overall can affect firm dynamics (Akcigit, Baslandze, and Lotti, 2018).

Our contribution to this field is twofold. First, we identify a large, unregulated, and profitable market over which politicians have full discretion, one that makes a large distortion possible: the market for bank loans to local public entities. This market is not specific to France; rather, it is frequently used in the financing of most local public entities across developed countries—where, as in France, it is not regulated. As a result, the generalizability of the distortion we reveal is potentially high.

The paper's second contribution here is in its clearly establishing the existence of each sequential element in the two-way return of favors at the center of quid pro quo models. In fact, we show that (a) a bank's favor prior to the election is paid back by the reelected politician in the form of increased access to the market of public entity loans and (b) this payback is a direct function of the favor granted by the bank *before* 

<sup>5.</sup> For earlier reviews of the literature on campaign contributions, see Grossman and Helpman (2001); Ansolabehere, de Figueiredo, and Snyder (2003). In the more recent literature, see e.g. Akey (2015) or Bertrand, Bombardini, Fisman, Trebbi, and Yegen (2020). On lobbying, see Vidal, Draca, and Fons-Rosen (2012) and Bertrand, Bombardini, and Trebbi (2014) or, from a more structural perspective, Kang (2016). On corruption, see the survey by Olken and Pande (2012).

the election. These results justify our modeling the firm's favor as an "input" to a production function that produces an "output" whose size depends on the input's value. Modeling of this type has become a workhorse in quid pro quo theories. In this respect, our paper is neither about "political connections", whereby politicians help their CEO friends (and vice versa), nor about establishing the existence of a political cycle in different countries. Instead, we aim to show how the existence of rents whose allocation is discretionary can distort not only political but also economic behavior. As such, our paper differs fundamentally from Bertrand, Kramarz, Schoar, and Thesmar (2018), who document the existence of a political employment cycle around elections that is driven by chief executive officers connected to local politicians with whom they graduated from the same elite school. In this case, CEOs are willing to forgo profits and receive nothing in return for the sake of doing one-way favors for their university friends.

# 2 Institutional background

## 2.1 The French political system

This analysis focuses on a subset of politicians—members of parliament (MPs), or *députés*—who sit in the French National Assembly, the lower house of parliament.<sup>6</sup> Each MP is elected by a specific constituency through a two-round voting system. There are 577 constituencies, but we restrict our attention to those located in mainland France (including Corsica); thus we study 555 constituencies before the 2010 redistricting and 539 afterwards. The term of the National Assembly is five years unless it is dissolved by the president's calling for new elections. Elections occur in all constituencies at the same time (except when there are special elections, as when when an MP has resigned or died). Because many MPs also hold positions as city mayors, our analysis accounts for that additional electoral cycle.

Given their role on the national stage, MPs are usually among the most prominent figures of their party. So despite the absence of any formal requirement, previous experience in the MP role typifies most ministers and key members of the government as well as all presidential candidates of both parties since the 1960s (with the notable

<sup>6.</sup> Senators who sit in the parliament's upper house are not directly elected by citizens. Our study is restricted to MPs, who are directly exposed to the popular vote.

exception of Emmanuel Macron).

Although MPs are elected within a specific geographical entity, they need not always hold executive positions at the local level; even so, they can affect the allocation of public entity debt through two distinct channels. First, because MPs are leading figures in their respective parties, they can influence all other elected members of their party—mayors, presidents of regions, and so forth—who do make financial decisions. Indeed, their endorsement is necessary for these local politicians to run under the party name and hence to benefit from the party's logistical support.<sup>7</sup> Second, it is common during our sample period for an MP to be elected also as mayor of the largest city in her constituency or as president of the region in which that constituency resides (for an economic analysis of this phenomenon, see e.g. Bach (2011)). Third, MPs also influence the financial decisions of public entities that are not controlled by elected politicians, but that take on large amounts of debt (e.g., public hospitals, public housing).<sup>8</sup>

## 2.2 The financing of local public entities

Our analysis relies on the hypothesis that banks are willing to grant politicians election favors in order to access the market for loans to local public entities. The question is: Why would private profit-maximizing banks be willing to distort their credit allocation to the local economy, an a priori costly decision, to gain access to this market? A plausible explanation is that this segment of the debt market is large, allocated by local politicians, and profitable for banks.

**Large.** The market for debt of local governments and public institutions (e.g., hospitals, public housing) is large and consists mostly of bank debt. Over our sample period (2007–2018), the total debt of local public entities amounted to  $\notin$ 212 billion,

<sup>7.</sup> Endorsement is crucial in France for two reasons. First, barring the recent exception of presidential elections, France does not hold "primary" elections. Hence the party's leaders themselves decide which candidate to sponsor in a local election. Second, political contributions are heavily regulated and political parties are directly funded by the government. This setup makes it virtually impossible for an independent candidate to raise the necessary campaign funding.

<sup>8.</sup> This is recognized in the 2008 bill n1072 proposing that MPs automatically sit on the boards of hospitals in their constituencies because MPs "take care of the well-functioning of these establishments and are often called for help, be it for obtaining additional public funding, finding outside financing for investment projects, or intervening against restructuring projects."

of which 80% was in the form of bank debt.<sup>9</sup>

Table 1 breaks down bank debt to local public entities by categories during 2007–2017. The vast majority of bank debt is medium/long-term credit allocated to local governments to finance capital expenditures—for example, on roads and sidewalks, public transportation, tunnels, public housing, schools, forests, and libraries.<sup>10</sup>

|                                     | Short-term        | credit | Medium/long-term cre |       |  |
|-------------------------------------|-------------------|--------|----------------------|-------|--|
| Type                                | Vol. ( $\in mn$ ) | Share  | Vol. ( $\in mn$ )    | Share |  |
| Central government                  | 187               | 2.7%   | 1,794                | 1.1%  |  |
| Local service of central government | 292               | 4.2%   | 9                    | 0.0%  |  |
| Local government                    | 4,248             | 61.4%  | 131,000              | 81.0% |  |
| Management of state-owned land      | 13                | 0.2%   | 117                  | 0.1%  |  |
| Education-related entities          | 2                 | 0.0%   | 31                   | 0.0%  |  |
| Hospital & other healthcare         | 971               | 14.0%  | 23,000               | 14.2% |  |
| Public housing                      | 13                | 0.2%   | 3,562                | 1.4%  |  |
| Other public entities               | $1,\!196$         | 17.3%  | 3,561                | 2.2%  |  |
| Total                               | 6,922             |        | 162,000              |       |  |

Table 1: Bank Debt of Public Entities

This table reports the average breakdown of bank debt in the credit registry over the period 2007–2017. Local government includes communes, départements, régions, and EPCI.

**Controlled by politicians.** It is crucial for our purposes that politicians have complete control over their debt-related decisions. In particular, the loans taken by local public entities are not subject to the French Public Procurement Code (Code des Marchés Publics). The reason is that a 2005 decree specifically excluded this market from the competitive procedure imposed by EU procurement rules, allowing politicians to choose—without any regulatory supervision—which banks to deal with.<sup>11</sup>

The only legal constraint is on the amount that politicians can borrow. A local

<sup>9.</sup> In 2016, bank debt accounted for 82% of the total debt of local governments (municipalities, departments, and regions) and for 88% of total hospital debt.

<sup>10.</sup> In France, four levels of local governments are allowed to sign loan contracts: communes, départements, régions, and EPCI (Etablissement public de coopération intercommunale).

<sup>11.</sup> The rationale given by the EU lawmaker is that when dealing with financial markets, public entities need to have the capacity to react quickly to potentially benefit from advantageous conditions, which is not compatible with heavy and time-consuming public procurement procedures. While this rationale does make sense for securities issuance, it is less clear that it does in the case of bank loans.

government is required by law to balance its budget. Thus local governments may borrow funds only to finance their investments, not their current spending, and must use their own resources to repay the capital and the interest on their debt. This is the so-called "golden rule."

**Profitable.** This market is profitable for banks, since the interest rates paid by local public entities on these loans are significantly higher than justified by their risk. French law (the law of 25 January 1985, now the Commercial Code) prevents local public entities from going bankrupt or undergoing liquidation proceedings. If a local public entity has difficulty repaying, it is placed under the central government's supervision. So as long as the French government does not default, the creditors of a public entity can be sure that their claims will be repaid.<sup>12</sup>

Given the existence of this explicit government guarantee, interest rates should reflect the likelihood of the French government defaulting; hence they should converge toward the interest rate on French government bonds (plus some "processing costs" and liquidity premium). Yet that is not the case. We use the data on rates to public sector entity loans available at the French Central Bank to estimate the spread paid by local public entities over the rates of Treasury bills with similar maturities.<sup>13</sup> As shown on Figure 1, we find that, during the sample period considered, a large fraction of loans to local public entities pay a spread of 150–200 basis points.

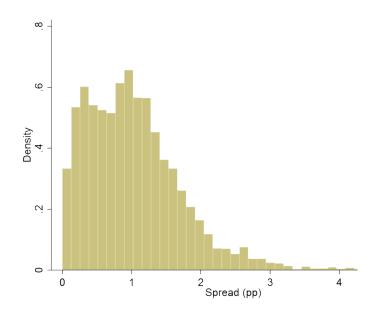
It is possible that this spread is an upper bound. First, central government debt has a risk weight of zero since Bale II, while the risk weight for public entity loans is between 0 and 20%, depending on the type of entity. We do a conservative estimation of additional cost of capital attributable do this difference in capital requirements.<sup>14</sup>

14. The cost to finance one additional euro of asset is: risk weight×minimum equity ratio×cost of

<sup>12.</sup> It is interesting that this feature has been recognized by the Court of Justice of the European Union as a breach of EU competition law, since French local public entities operating in competitive markets can—thanks to the French government's implicit guarantee—obtain financing at a cost lower than their rivals. In this case, the European Commission noted that "[t]he procedures described above imply that the State performs the role of guarantor of last resort. It may therefore be legitimately concluded that La Poste benefits from an unlimited guarantee on the part of the French State because of its legal form as a publicly owned establishment." (Decision 2010/605/EU of 26 January 2010)

<sup>13.</sup> We obtain rates on public sector entity loans from two representative surveys on rates on new loans conducted by the French Central Bank (NCE survey for 2006-10 and MCONTRAN survey from 2010 onward). These surveys mostly contain loans to private corporations, but we could find around 20 loans to public sector entities per year for 2006-10, and around 500 per year for 2010-18. We restrict the analysis to loans with fixed rates. To compute the spread relative to Treasury bills, we use monthly data to derive a linear interpolation for maturities that are not traded.





This figure shows the distribution of the spread of local public entity loans relative to Treasury bonds of similar maturities.

This conservative estimation implies that the different regulatory treatment can account for a 0.16% spread between the rates of public entity loans and government bonds, much lower than the gap we found of 1.5% to 2%. As such, differences in capital requirement and risk-weighting cannot explain the spread we document and still implies that loans to local public entities are highly profitable. Second, part of the spread may be due to the lower liquidity of local government loans compared to government bonds. While a formal quantification of this liquidity premium is outside of the scope of this paper, the cross-sectional result detailed below suggests that the lower liquidity of loans is unlikely to fully explain this spread.

Why doesn't competition among lenders drive interest rates down to the rate on government bonds? Although answering that question would require expanding the

equity +  $[1\text{-risk weight} \times \text{minimum equity ratio}] \times \text{cost of debt}$ . The average cost equity for French banks in 2013 was 8%, and that of debt was 3.2%. We take the capital ratios imposed by Basel III, including when they went into effect after our sample period. Basel III imposes a minimum regulatory capital ratio at 8%, a capital conservation buffer of 2.5%, and a countercyclical capital buffer of 2.5%, i.e. a minimum overall ratio of 13%. We obtain that financing one euro of public entity loan induces a cost of 3.36%, compared to 3.2% for a euro of government bond that can be entirely financed with debt.

scope of this paper, we offer three potential explanations. First, the French banking sector has experienced a continuous trend of concentration that accelerated during the mid-2000s, reducing competition among the major lenders (Fraisse, Hombert, and Lé, 2018). Second, local public entities are not set up to maximize profits and so are likely less motivated (than are private firms) to reduce prices via competition. Third, if these high interest rates are part of a two-way gift exchange mechanism then politicians have no reason to reduce them, since those rates are simply the price of being able to induce banks to extend credit to the local economy in election periods.<sup>15</sup>

In line with this third explanation, we find that the spread is higher for local public entities that are under tighter control by local politicians. We compute the spread for both "Etablissements Publics Administratifs" (EPA, our sample of public sector entities) and "Etablissements Publics Industriels et Commerciaux" (EPIC, state-owned firms performing a public service mission but operating in competitive industries, such as the state-owned postal service or some local transportation services among others). EPIC are less tightly linked to local politicians.<sup>16</sup> Loans to EPA and *EPIC* both benefit from the central government guarantee, have the same regulatory treatment, and share similar characteristics (in terms of size, maturity and frequency of repayments, neither can be collateralized). However, we find that the spread is lower by 40 basis points for *EPIC* on average. While we have too few data to conduct a fully-fledged formal analysis, this result suggests that discretionary control by local politicians may partly explain the observed spread for the public sector entities in our sample. In addition, the fact that we find a lower spread for *EPIC* is also evidence that the spread we document for the public sector entities in our sample is not only due to a different liquidity premium on loans relative to government bonds, as loans to *EPIC* should be subject to the same liquidity premium.

<sup>15.</sup> Local public debt can be used by French politicians as a way to increase their reelection chances because, in part, voters do not fully understand the consequences of public indebtedness. This phenomenon is explored by Pérignon and Vallée (2017).

<sup>16.</sup> EPA may be directly controlled by local politicians (in the case of local governments). When not directly controlled by local politicians, they are subject to strong political influence because their funding depends on political decisions, politicians often sit on their boards, and their workers are civil servants whose career prospects may be affected by local politicians. On the other hand, EPIC obtain most of their funding from the goods and services they sell, their workers are not civil servants, they are subject to standard private sector accounting rules, and politicians may sit on their boards but EPIC boards have less control relative to managers than EPA boards.

# **3** Reciprocal favors: A conceptual framework

Before turning to our empirical analysis, it is useful to review the logic of reciprocal favors and the conditions under which such an equilibrium can exist. This conceptual framework will then guide our empirical analysis.

Politicians and banks can engage in a game of exchanging favors. During the pre-election period, banks can bestow economic favors on the politician to aid her reelection. At the end of this period, an election takes place. If the incumbent is reelected, then she can reciprocate the favor; if she is not reelected, the relationship ends. In this repeated game, the favors are informal and contractual agreements are not possible.

Politicians face partially myopic voters, who are willing to punish incumbents for poor recent macroeconomic performance (e.g., Weatherford, 1978). As a result, the prospects of an incumbent seeking reelection depend on the state of the local economy, in part determined by the supply of credit to local firms.

A politician can request an election favor from the bank during election years in the form of supplying more credit to the private sector than the bank would otherwise have supplied. This favor then increases the incumbent politician's chances of being reelected, and its value depends on two factors: the incumbent's likelihood of losing the election and the election's proximity, when the effect of local economic conditions on voter choices is the greatest.

What, then, prevents all politicians from working continuously to expand credit within the local economy? For the bank to participate in the reciprocal favors game, politicians must return the bank's favor by directing at least some public entity loans to the bank. This requirement amounts to a private cost for the politician that is equal to the distortion of the optimal allocation of public entity debt across lenders.<sup>17</sup> So in order to minimize her costs, the incumbent should seek help from the bank only for the minimum number of years and only if the election is contested.

From the bank's perspective, the favor is an input meant to influence the politician

<sup>17.</sup> More precisely, this cost is most strongly associated with the following three factors. (i) *Political capital depletion:* for a public entity to take up a loan, the MP must spend political capital to convince those who directly control that public entity as well as the government agents in charge of controlling the debt of local public entities. (ii) *Budget profligacy:* too large of an increase in the indebtedness of local public entities in the MP's constituency may increase the critical attention of civil society. (iii) *Reputation cost:* playing this game on a larger scale increases the probability of being discovered, which would result in large reputations costs.

and ultimately gain access to the market for public entity debt. This input has a cost that depends on the magnitude of the distortion relative to the optimal credit allocation (i.e., absent the reciprocal favors mechanism). We can therefore expect that profit-maximizing banks will have only limited leeway to engage in such activities and thereby to minimize this cost.

Considering that this input is costly for the bank, we should also expect these "political favors" to be granted selectively when the input is most productive, or in situations where it can provide large gains—namely, when the politician has considerable influence over the allocation of public entity debt. In this framework, granting a favor is costly for all agents, and it occurs only if they believe that the favor will be reciprocated. These considerations yield three empirical predictions.

First, an incumbent politician will ask for favors only when she is highly vulnerable, as when she faces a rapidly approaching contested election. Second, a bank will grant politicians favors only when its expected gains are large, which occurs when (a) the incumbent is powerful enough to affect the allocation of public entity loans and (b) the bank is willing to access the public entity loan market.<sup>18</sup>

Third, the banks that contributed to a reelection campaign should receive additional public entity loans if the local politician is actually reelected. When such a relationship ends because the incumbent is not reelected, we can expect the newly elected politician to refrain from immediately restarting the reciprocal favors equilibrium with her predecessor's partners—especially if she is inclined to punish those banks.

# 4 Data

## 4.1 Credit data and descriptive statistics

Our main data set derives from the French Credit Registry, which is administered by the Bank of France, collecting data on corporate borrowers that have total exposure (debt and guarantees) of more than  $\notin 25,000$  with financial intermediaries operating

<sup>18.</sup> There may be variation in the willingness or ability of banks to participate in this market. Such variation may result either from the banks' characteristics or from their past participation in a reciprocal favors game—that is, since the condition to continue with a reciprocal favors strategy is less stringent than that to be the *first* player who grants a favor. It is intuitive that agents develop a reputation for "agreeing to play the reciprocal favors game", which renders them more likely to grant each other favors if they have played in the past.

in France. For each bank-firm pair, we recover the end-of-month total outstanding credit granted (whether drawn or undrawn) for each month from January 2007 to March 2017; thus we obtain a monthly average of 3 million bank-firm observations. The French Credit Registry covers loans granted to private firms as well as loans to such local public entities as local governments, state-owned enterprises, and public hospitals. The data provide information on all different types of credit, which we aggregate into two groups: short-term credit and medium/long-term credit. Since our analysis focuses on private banks, it excludes all government-owned banks.<sup>19</sup> All our analyses also exclude interbank lending.<sup>20</sup> Finally, we exclude loans to real estate investment trusts, which often are corporations owned by households to benefit from preferential tax treatment when investing in real estate. We are left with about 2.2 million bank-firm observations per month on average. The Credit Registry provides information on outstanding credit amounts, but does not provide the price of new loans or other contractual features.

Recall from Section 3 that our approach relies on distinguishing among banks in terms of their willingness to participate in the market for loans to local public entities. We start investigating this dimension by examining banks' actual participation in that market. For each bank, we compute the average share of loans to local public entities in their total portfolio over the sample period. The distribution is skewed rightward: 75% of our sample's banks have balance sheets that include *no* loans to local public entities.

We continue our exploration by sorting banks according to the share of loans to local governments in their portfolio and then looking at bank characteristics. In view of the right-skewed distribution just described, we split banks into four groups: the first group includes only those banks that do not lend to local governments, and the three remaining groups are defined by taking the terciles of the distribution's positive support.

Table 2 reports summary statistics for the characteristics of these different types of banks. Two facts are worth noticing. First, most *foreign* banks are in the group that do not lend to local public entities, which conforms with the idea that being active

<sup>19.</sup> There are 21 government-owned banks in France, of which 19 are "municipal savings" banks (local establishments that specialize in pawnbroking).

<sup>20.</sup> Interbank lending accounts for a large share of credit volumes (about a third of short-term credit). It consists primarily of loans between banks from the same banking group and so does not adequately reflect economic activity in the private sector.

on the local public entity loan market requires a certain degree of local connection. Second, the share of *cooperative* banks is increasing in the share of loans to local public entities in the banks' portfolio.<sup>21</sup> Because cooperative banks feature a high degree of autonomy compared to traditional banks thanks to diffuse share ownership and tend to traditionally accumulate substantial reserves, their managers have more autonomy than those at traditional banks. In addition, the local nature of cooperative banks makes them likely to maintain long-standing relationships with local politicians.

| Bank type   | #banks | Mean sh.<br>lending to<br>local public entities | #cities   | Share of entities<br>owned by foreign groups | Share of<br>cooperative<br>banks |
|-------------|--------|---|-----------|--|----------------------------------|
| No lending  | 459    | 0.0%  | 338       | 41% (17%)                                    | 3%                               |
| 1st tercile | 73     | 0.3%  | 2,121     | 26% (5%)                                     | 11%                              |
| 2nd tercile | 72     | 9.3%  | 1,897     | 14% (1%)                                     | 58%                              |
| 3rd tercile | 72     | 45.8%   | $1,\!698$ | 6% (3%)                                      | 76%                              |

Table 2: Characteristics of Bank Type

This table reports the main characteristics of the banks in our sample as a function of their respective balance sheet's levels of lending to public entities. The 1st, 2nd, and 3rd terciles are defined on the support of positive distribution. The sample period is from 2007 to 2017 inclusive. Our study includes 555 distinct constituencies between 2007 and 2012 and 539 distinct constituencies afterwards. All variables are Winsorized at the 1% level in each tail.

We discussed previously how the reciprocal favors game is more easily sustained when the same participants have already played before. In the same vein, we find that—among all banks involved in the market for public entity loans in a constituency at time t—97.7% of them were already involved in this market (and in that same constituency) at time t - 1.

We are thus led to identify a bank's willingness or ability to participate in the market for public entity loans by the presence of public entity debt on its balance sheet. For that purpose we create an indicator variable *Involved bank*<sub>b</sub> that is set equal to 1 if bank b has previously lent to local public entities (and is set to 0 otherwise).

<sup>21.</sup> The defining characteristics of a cooperative bank are that its capital is owned (in the form of shares) by the cooperative's members and that those members are also the bank's customers. These shares confer fewer rights than does corporate stock; moreover, they cannot be traded on the open market and can be repurchased by the bank only at their nominal value and subject to certain conditions. In addition, French cooperative banks have traditionally been set up as networks that comprise a hierarchy of legally independent entities—for instance, local banks owned by members, regional banks owned by the local banks, and a federal or national body owned by the regional banks. The decision-making process then reflects this "inverted pyramid" structure.

We construct our main data set by transforming monthly data into quarterly data and then summing credit at the constituency  $\times$  quarter or at the constituency  $\times$ quarter  $\times$  bank-type level.<sup>22</sup> Table 3 presents summary statistics of our credit-related variables by constituency.

Table 3: Summary Statistics of Economic Variables by Constituency

| Variable                             | Mean        | Std. Dev    | p25        | p50         | p75         |
|--------------------------------------|-------------|-------------|------------|-------------|-------------|
| Short-term credit ( $\in$ thousands) | $238,\!661$ | 414,427     | $85,\!679$ | $134,\!455$ | 240,466     |
| Total credit ( $\notin$ thousands)   | $474,\!681$ | $592,\!651$ | 151,798    | $242,\!073$ | $528,\!096$ |
| Number of banks                      | 145         | 44          | 116        | 136         | 164         |
| Number of involved banks             | 82          | 23          | 67         | 79          | 93          |
| Employment                           | 56.5        | 30.4        | 39.6       | 49.5        | 61.4        |

This table reports summary statistics for the main variables used in our study. For each variable we present its mean, standard deviation (S.D.), 25th percentile (p25), median (p50), and 75th percentile (p75). The sample period is from 2007 to 2017. Our study includes 555 distinct constituencies between 2007 and 2012 and 539 thereafter. All variables are Winsorized at the 1% level in each tail.

### 4.2 Political variables

We need two types of information about politicians. First: Is the incumbent facing a contested election? Second: Can the incumbent affect the allocation of credit to local public entities?

Answering these questions requires that we assemble a unique data set on French local political life. Our first source of information is data on parliamentary elections for the elections held in 1993, 1997, 2002, 2007, and 2017. These data were obtained from the French Home Affairs Office (Ministère de l'Intérieur) and Sciences Po (Centre de Donnés Socio-Politiques ). We collect information on all candidates' names, political parties, and votes received. Although we focus on the parliamentary election cycle, we account for the incentives of MPs who also hold the position of mayor. We therefore collect data (from the same sources) on municipal elections.<sup>23</sup>

<sup>22.</sup> In most of our analyses, "bank-type" simply indicates whether (or not) the focal bank's portfolio includes local public entity loans, which we call "involved banks".

<sup>23.</sup> Thus we collect data for the 1995, 2001, 2007, and 2014 municipal elections. For elections held after 2001, we obtain the names of all the candidates on the ticket (called "lists" in France), the names of all members on each list, the list's party affiliation, and the score of the list. For the years preceding 2001, we have only the score of the lists and their political affiliation. The mayor is elected indirectly (by the municipal council) and so need not head up the winning list. We therefore use

The resulting data set allows us to construct three political variables at the constituency-quarter level. Details on the construction of these variables are given in the Appendix. See Table 4 for the summary statistics.

| Variable                    | 2007 | 2012 | 2017 | Total |
|-----------------------------|------|------|------|-------|
| Powerful MP                 | 0.34 | 0.34 | 0.30 | 0.33  |
| Political longevity         | 0.24 | 0.25 | 0.26 | 0.25  |
| Former minister             | 0.17 | 0.19 | 0.13 | 0.16  |
| Central government support  | 0.62 | 0.55 | 0.48 | 0.55  |
| Regional government support | 0.33 | 0.39 | 0.57 | 0.43  |
| Mayors' support             | 0.03 | 0.37 | 0.31 | 0.24  |
| Contested election          | 0.58 | 0.50 | 0.79 | 0.62  |
| Not party stronghold        | 0.48 | 0.20 | 0.34 | 0.34  |
| Upcoming contested election | 0.26 | 0.38 | 0.71 | 0.44  |

 Table 4: Summary Statistics of Political Variables

This table reports summary statistics for our political variables. Because they are all indicator variables, we present only their means. The construction of variables is described in the Appendix. The sample period is from 2007 to 2017; we have 555 distinct constituencies between 2007 and 2012 and 539 thereafter.

First we create a binary variable,  $Election_{c,t}$  set to 1 only if a parliamentary election is held in constituency c (a) during year t or (b) in the year of a municipal election in which the incumbent MP is also running (about 25% of MPs).

Second, we indicate whether the incumbent faces a contested election via the dummy variable  $Contested_{c,t}$ ; this dummy is set to 1 only if the incumbent is (a) running in a constituency that is not a stronghold for her party or (b) competing in a close election. We flag a constituency as *not* being a "stronghold" if, prior to the incumbent's election, the constituency was held by another party.<sup>24</sup> We consider the upcoming election to be close if based on subsequent actual election results, the number of votes for an incumbent MP differs by less than 6% from the number for her closest rival.<sup>25</sup>

Third, we use two criteria to assess an MP's influence over the allocation of public entity loans: her influence in the party and her direct connections with other elected local politicians of the same party. Being a prominent political figure matters because,

different data from the Home Affairs Office—namely, the Registre National des Elus, which provides the names of mayors.

<sup>24.</sup> For similar proxies of contested elections, see Bertrand, Kramarz, Schoar, and Thesmar (2018) in the case of France and Fishback, Haines, and Kantor (2007) for the United States.

<sup>25.</sup> Results are robust to winning margins that range from 2% to 14%.



Figure 2: Contested Constituencies of Powerful Politicians

This figure shows the location of contested constituencies of powerful politicians (MPs) for the three elections in our sample. A constituency is *contested* if it was held by another party in the previous election or if, in the next election, the number of votes received by the political incumbent and her closest rival differs by less than 6%. Politicians are *powerful* if they are prominent figures in their party and have direct connections with other elected local politicians.

in order to reciprocate a favor, the MP must convince *other* politicians to allocate the debt of the local public entities they oversee to specific banks; that task is easier if the incumbent is powerful in her own party, since her endorsement is sought by local politicians. Being politically connected matters because it increases the number of other politicians whom a powerful MP could convince. We consider an MP to be "influential" if she (a) has been elected to the House of Representatives at least three times since 1993 or (b) has ever been a minister of the Fifth Republic. Our proxy for the number of local connections is based on whether the incumbent is from the same party as the national government or the regional council and on whether more than 50% of the mayors in an MP's constituency belong to the same party.<sup>26</sup> We create the indicator variable *Powerful MP*<sub>c,t</sub>, which is set to 1 only if the incumbent is both influential and locally connected.<sup>27</sup>

Figure 2 illustrates—for the three parliamentary elections in our sample—the geographic distribution of powerful MPs facing a contested election. It is reassuring from our research perspective that no clear geographic patterns emerge and that contested constituencies are widespread across France.

<sup>26.</sup> We obtain similar results when using either a 40% or a 60% cutoff.

<sup>27.</sup> We experiment with alternative ways of identifying powerful MPs and obtain consistent results across definitions.

# 5 Do private banks aid the reelection of politicians?

### 5.1 Empirical identification

We begin the empirical analysis by testing whether we can identify a political credit cycle for private banks. Following the theoretical predictions of Section 3, we conjecture that politically motivated distortions in lending decisions are (a) greater in areas that are politically more contested in the year of the election, (b) concentrated in constituencies where the incumbent has influence over the allocation of local public entity debt, and (c) driven by banks for which the value of currying a favor by increasing their credit supply (the quid) is high because their profits depend more on lending to public entities in the future (the pro quo). We identify this type of banks as banks that have public entity debt in their balance sheet.

We estimate the following equation:

$$Credit_{c,b,t} = \beta_1 \ Election_t \times Contested_{c,t} \times Powerful \ MP_{c,t} \\ + \beta_2 \ Election_t \times Contested_{c,t} \times Powerful \ MP_{c,t} \times Involved \ bank_b \\ + \ Constituency\_characteristics_{c,t} \otimes Involved \ bank_b \\ + \ \theta_{c,b} + \delta_{r,t} + \alpha_{b,t} + \varepsilon_{c,b,t}$$

$$(1)$$

where  $Credit_{c,b,t}$  is the (logged) volume of credit extended by bank type b to private firms in constituency c at time t. Powerful  $MP_{c,t}$ , Contested<sub>c,t</sub>, and Election<sub>c,t</sub> are dummies set equal to 1 only if (respectively) the incumbent is powerful, the election is contested, and the election is held this year (while including municipal elections). Involved bank<sub>b</sub> is a dummy that equals 1 if bank b has ever extended loans to local public entities and is therefore time invariant. We use  $\otimes$  to denote the cross interaction among the different variables; hence the term  $Constituency\_characteristics\_c,t \otimes$ Involved bank<sub>b</sub> allows for each combination of constituency characteristics—namely,  $Contested_{c,t}$ , Powerful  $MP_{c,t}$  and Election<sub>t</sub> with each other and with the variable Involved bank<sub>b</sub> as well as all combinations of the single terms  $Contested_{c,t}$ , Powerful  $MP_{c,t}$ , Election<sub>t</sub> and Involved bank<sub>b</sub>.

Because we are interesting in how the existence of quid pro quo can distort credit for "aggregate" local economies, we collapse the data at the constituency, bank type (i.e., with or without public entity debt) and time level.<sup>28</sup> Since the data are aggregated at the bank type-constituency, the term  $\theta_{c,b}$  captures Bank type×constituency fixed effects and  $\alpha_{b,t}$  denotes Bank type×time fixed effects.  $\delta_{r,t}$  denotes region× time fixed effects and control for time-varying unobserved heterogeneity across French regions—for example, differences in regional business cycles and divergence in political voting patterns that may be correlated with credit supply.<sup>29</sup> Standard errors are clustered at the constituency level to account for possible autocorrelation in the error term.

Equation 1 contains two coefficients of interest. When estimated without the term Involved bank<sub>b</sub>,  $\beta_1$  compares the difference in credit volumes between constituencies where the MP is able to affect the allocation of local public entity debt vs. not, when both types of MPs face a contested election. In this case,  $\beta_1$  is identified by comparing credit within contested constituencies, across MPs with various degree of influence, and we can control for the average effect of being a contested constituency with the variable  $Election_t \times Contested_{c,t}$ ). This implies in particular that differences in credit cannot be driven by contested constituencies being on different economic trends than those with non-contested elections, which would be the case for instance if local economic conditions are a first order determinants of the election of MPs.

The second coefficient of interest is  $\beta_2$ . It is estimated by exploiting variations within constituency-time, across banks involved or not in the market of local public entity debt. This specification allows us to control for many sources of time-varying unobserved heterogeneity, as we can include Constituencies × time and Bank-type × time.

Constituencies  $\times$  time fixed effects absorb all unobserved time-varying shocks at the constituency level that could drive differences in firms' credit demand stemming from differences in local public policies, local business cycles, or heightened political uncertainty due to powerful incumbents being challenged.<sup>30</sup> In this case, the coeffi-

<sup>28.</sup> In Appendix Table A.1, we show our results are quantitatively similar when we work at the disaggregated bank-constituency level instead of the more aggregate bank type-constituency level.

<sup>29.</sup> A reform effective 1 January 2016 reduced the number of metropolitan regions from 22 to 13. We use the current (post-reform) definition of the regions throughout our sample.

<sup>30.</sup> See for instance: Julio and Yook (2012); Gulen and Ion (2015); Baker, Bloom, and Davis (2016); Jens (2017) Kara and Yook (2019). Note that it is a priori unclear whether credit demand should bias upward or downward the result as demand-driven public policies and uncertainty have opposite effects on credit demand. Whereas demand-side policies should boost economic activity and hence lead to higher credit demand, heightened uncertainty leads to lower investment and thus to reduced credit demand. If the second effect dominates, then our baseline specification underestimates the

cient of interest  $\beta_2$  is identified by comparing banks with vs. without public entity debt in their balance sheets, lending to firms located in the same constituency and exposed to the same local shocks.<sup>31</sup>

The inclusion of Bank-type × time fixed effects remove unobserved time-varying shocks at the bank-type level, and therefore absorb differences in credit supply between banks that could be driven by the fact that banks with public entity debt in their balance sheets could have varying shocks (e.g., different cost of funding) that are correlated with the election cycle. Finally, Bank-type × constituency fixed effects account for possible assortative matching between banks and constituencies by forcing  $\beta_2$  to be identified using only banks that are in a given constituency before and after the election, and therefore do not exploit changes in credit driven by the entry or exit of types of banks.

**Discussion of identifying assumption.** By comparing credit volumes within bank-type–time cells—and across constituencies in which we are likely versus unlikely to observe election favors—our specification rules out that our results are driven by banks in different constituencies being exposed to different shocks or by banks selecting themselves into specific constituencies. Hence, we do *not* require that *banks are allocated randomly* across constituencies or that (positive) *bank-specific shocks are correlated* with constituencies where elections are contested and the incumbent is powerful.

Our identifying assumption only requires that the variations in credit that stem from changes in local credit demand (e.g., due to demand-side policies implemented by powerful political incumbents) affect both types of banks similarly. This assumption would be violated *only* if there were shocks correlated with credit volumes that are: (a) specific to election years, (b) occurred only in constituencies featuring an influential incumbent who faces a contested election, and (c) affected only those banks that participated in the market for loans to local public entities. This could be the case for instance if banks with public entity debt in their balance sheet are banks that "naturally" comove more with *local* business cycles. We provide direct evidence showing this is not the case in Table 6.

effect of reciprocal favors on the credit supply.

<sup>31.</sup> This approach is similar to Khwaja and Mian (2008).

## 5.2 Results

The results of estimating Equation (1) are reported in Table 5. In order to ease the exposition, we report results only for the relevant interaction variable. However, each regression incorporates all single and interacted terms.

We start in columns [1] and [2] by looking at the data at the constituency-year level, and focus solely on the comparison across constituencies around election years. Column [1] reports the result of the interaction  $Contested \times Election$  and shows there is no material difference, neither economically or statistically, in the volume of credit between contested and non-contested elections in the run-up to an election.

While this result suggests limited politically-induced credit cycle in France, a different story emerges when we look at contested constituencies where the incumbent MP is influential in column [2]. The interaction *Contested*  $\times$  *Election* with *Powerful MP* shows that private firms in contested constituencies where the MP is influential have credit that is 9.3% higher during election year than in similarly contested constituencies in which the MP is not powerful.

Our results so far do not allow us to know whether this higher credit is demand or supply driven. For instance, *powerful* incumbents might be the only ones able to implement demand-side policies (e.g., a fiscal stimulus) to boost the local economy and improve their prospects in an upcoming contested election. In this case, the volume of credit would increase not because banks are granting a favor to politicians by increasing credit supply but because the corporate sector's demand for credit increases as a result of those stimulus policies.

To distinguish between these two explanations, we work at the constituency, bank type, time level and exploit variation within constituencies, across bank type and estimate Equation 1. Columns [3] to [6] report the results. In columns [3] and [4], we separately estimate the regression for banks that are and are not involved in the public entity loan market. In column [3], we show that banks involved in the public entity loan market extend their credit to firms by 13.9%. By contrast, banks not involved in this market do not change their credit supply, with a point estimate equal almost equal to zero (-0.009), despite serving firms that are in the same constituency where a powerful MP face a contested election. Therefore even during an election year, banks that have no public entity debt on their balance sheet have the same lending policies in constituencies where a powerful alleviate concern that our results are explained by

changes in credit demand and not credit supply.

In column [5], we estimate the sample all together to formally estimate the difference in credit supply between the two types of banks. We include constituency  $\times$  time fixed effects which ensures that we are comparing credit to firms located in the same constituency and the same time, and therefore exposed to similar local uncertainty and local stimulus policies. Overall, banks that are involved in the public entity loan market increase their volume of credit by 14.1% during election years in constituencies where a powerful incumbent is contested.<sup>32</sup>

The fact that *only* banks with public entity debt on their balance sheet expand their supply of credit to firms show that the increase in credit observed in election year for constituencies where a powerful incumbent faces a contested election (column [2]) is unlikely driven by powerful incumbents implementing stimulus policies and as a result boosting credit demand in the constituency. The results also directly speaks to the mechanism driving this higher credit and the type of benefit banks hope to receive by increasing their credit supply, namely a better access to the public entity loan market after the election, which we provide direct for in Section 6.

Identification discussion and robustness. In our preferred specification, we control for time varying unobserved heterogeneity across constituencies and across bank types. This implies that our results cannot be driven by bank level shocks that coincide with election cycles, nor by constituency level shocks. The threat to our identification is that banks involved in the public entity loan market are differentially more exposed to local shocks for reasons uncorrelated with our mechanism of quid pro quo. An example would be that involved banks comove more with the local economy, for instance because they rely more on local deposits.

We test for this possibility in three ways: (i) we show that involved banks do not comove more with the local economy, (ii) we show that involved banks only expand certain types of credit around contested elections and (iii) we show that our results are robust to controling for a battery of time varying bank characteristics.

In Table 6, we test if involved banks comove with the local business cycle in

<sup>32.</sup> The coefficient for *Contested* × *Election* × *Powerful MP* is not identified here because this interaction term varies only at the constituency-time level and thus is absorbed by the constituency × time fixed effects. Similarly, we no longer include region × time fixed effects because each constituency belongs to one region and therefore, region × time fixed effects are collinear with constituency × time fixed effects.

| Dependent variable:   | Short-term credit |                        |                        |                        |                  |  |  |  |
|---|-------------------|------------------------|------------------------|------------------------|------------------|--|--|--|
| Unit of analysis  | Const             | ituency                | Constituency-bank      |                        |                  |  |  |  |
| Sample  | All<br>[1]        | All<br>[2]             | Involved<br>[3]        | Not<br>involved<br>[4] | All<br>[5]       |  |  |  |
| $Contested \times Election$   | .018 $(.014)$     | .01<br>(.01)           | 008 $(.016)$           | .025<br>(.027)         |                  |  |  |  |
| $Contested \times Election \times Powerful \ MP$  |                   | $.093^{***}$<br>(.043) | $.139^{***}$<br>(.048) | 009 $(.065)$           |                  |  |  |  |
| $\begin{array}{l} Contested \times Election \times Powerful \ MP \\ \times \ Involved \ bank \end{array}$ |                   |                        |                        |                        | .142**<br>(.067) |  |  |  |
| Interacted terms  | $\checkmark$      | $\checkmark$           | $\checkmark$           | $\checkmark$           | $\checkmark$     |  |  |  |
| Constituencies FE   | $\checkmark$      | $\checkmark$           | $\checkmark$           | $\checkmark$           | $\checkmark$     |  |  |  |
| Region $\times$ Time FE   | $\checkmark$      | $\checkmark$           | $\checkmark$           | $\checkmark$           |                  |  |  |  |
| Bank type $\times$ Time FE  |                   |                        | $\checkmark$           | $\checkmark$           | $\checkmark$     |  |  |  |
| Constituencies $\times$ Time FE   |                   |                        |                        |                        | $\checkmark$     |  |  |  |
| Bank type $\times$ Constituencies FE  |                   |                        |                        |                        | $\checkmark$     |  |  |  |
| Observations  | $24,\!671$        | $24,\!671$             | $24,\!671$             | $24,\!671$             | $49,\!336$       |  |  |  |

Table 5: Political Credit Cycle and the Role of Involved Banks

The dependent variable is the (log of) short-term credit to private companies (quarterly frequency). Election is a dummy equal to 1 in the four quarters leading up to a legislative election. When the incumbent MP is also a mayor, we account for the municipal election cycle. A constituency is *contested* if it was held by another party in the previous election or if that actual election result (between the incumbent MP and her closest rival) was decided by less than 6%. Members of parliament are *powerful* if they are prominent figures in their party and have direct connections with other elected local politicians. The *Involved\_bank* variable is an indicator set equal to 1 if the bank has positive local public entity debt on its balance sheet (and set to 0 otherwise). FE = fixed effects. Standard errors (in parentheses) are clustered by constituency. \*, \*\*, and \*\*\* indicate significance at (respectively) the 10%, 5%, and 1% levels.

columns [1] to [8]. In columns [1], [3], [5], [7], we show that involved banks do not comove more with the average local business cycle by interacting the dummy *Involved bank* with four different proxies of the local business cycle: total valueadded, total wages, employment and total capital.<sup>33</sup> These variables are computed using the firm tax files and cover almost the universe of production in France. None of the coefficients are statistically significant and point estimates are close to zero,

<sup>33. &</sup>quot;Credit" in the credit registry is not a flow but is instead always measured as the stock of current outstanding debt, as explained in Section 4.1. Therefore, we regress the stock of debt outstanding on the stock of capital or employment and differentiate the mean with the bank-type  $\times$  constituency fixed effects. This is almost equivalent to looking at correlation between the flow of credit and investment (flow of capital) or employment growth.

which shows that banks involved in the market for public entity loans do not have a higher beta with local economic shocks in the average constituency.

It is a priori possible that involved banks behave differently only in constituencies where the local MP is powerful.<sup>34</sup> We test directly for this possibility in columns [2], [4], [6] and [8], where we allow the coefficient *Involved bank* × *Local business cycle* to vary with whether the constituency is ran by a powerful MP or not. The interaction *Involved bank* × *Local business cycle* × *Powerful MP* specifically test if banks involved in the public entity loan markets comove more with the local business cycle, specifically in constituencies where the political incumbent is powerful. Again, all the point estimates are economically and statistically indistinguishable from zero.

Second, we run a "placebo" test by estimating Equation 1 for long-term credit. Our argument is that involved banks are only trying to help the powerful political incumbent to be re-elected by increasing their supply of credit but doing so is costly. Therefore, we should see that involved banks only increase their short-term credit (around the election), but not their long term credit, since credit granted for a period longer than one year would not increase more the political incumbent chances to be reelected. Column [9] of Table 6 reports the result and shows that indeed, involved banks do not significantly expand their long-term credit.

Third, we reestimate Equation 1 at the bank-constituency level to control directly for a host of time varying bank characteristics that might affect the supply of credit and report the results in Appendix Table A.1. The bank controls are bank size (log assets), deposit ratio, equity ratio, percentage of non-performing loans, and net interbank debt/assets. We also directly include a bank×time fixed effect, implying in this case that we are comparing the *same* bank across different constituencies. In all cases, we find a point estimate that is quantitatively similar to our baseline result. All together, these results lay support to our hypothesis that banks involved in the public entity loan market increase their supply of credit to the local economy during the year of the election, when the political incumbent faces a contested election and is able to influence the allocation of public debt.

<sup>34.</sup> This would be the case for instance if the business model of involved banks' local branches is different in these constituencies.

| Dependent variable:   | Short-term credit |               |               |               |              |                |              | Long-term<br>credit |                |
|---|-------------------|---------------|---------------|---------------|--------------|----------------|--------------|---------------------|----------------|
| Proxy for business cycle:   | Value             | -added        | Wages         |               | Employment   |                | Capital      |                     |                |
|   | [1]               | [2]           | [3]           | [4]           | [5]          | [6]            | [7]          | [8]                 | [9]            |
| Involved bank $\times$ Local business cycle   | 025<br>(.043)     |               | 032<br>(.051) |               | 056 $(.054)$ |                | 007 $(.034)$ |                     |                |
| Involved bank $\times$ Local business cycle $\times$ Powerful MP  |                   | .003 $(.036)$ |               | .006 $(.037)$ |              | .017<br>(.041) |              | .001<br>(.028)      |                |
| $\begin{array}{l} Contested \times Election \times Powerful \ MP \\ \times \ Involved \ bank \end{array}$ |                   |               |               |               |              |                |              |                     | .051<br>(.064) |
| Interacted terms  | ~                 | ~             | ~             | ~             | ~            | ~              | ~            | ~                   |                |
| Bank type $\times$ Constituencies FE  | $\checkmark$      | $\checkmark$  | $\checkmark$  | $\checkmark$  | $\checkmark$ | $\checkmark$   | $\checkmark$ | $\checkmark$        | $\checkmark$   |
| Bank type $\times$ Time FE  | $\checkmark$      | $\checkmark$  | $\checkmark$  | $\checkmark$  | $\checkmark$ | $\checkmark$   | $\checkmark$ | $\checkmark$        | $\checkmark$   |
| Constituencies $\times$ Time FE   | $\checkmark$      | $\checkmark$  | $\checkmark$  | $\checkmark$  | $\checkmark$ | $\checkmark$   | $\checkmark$ | $\checkmark$        | $\checkmark$   |
| Observations  | 49,336            | 49,336        | 49,336        | 49,336        | 49,336       | 49,336         | 49,336       | 49,336              | 49,336         |

#### Table 6: Comovement of Involved Banks with the Business Cycle

Dependent variables are the (log of) short-term and long-term loans to private companies (quarterly frequency). Local business cycle is a constituency-level proxy for economic activity (in log). Election is a dummy equal to 1 in the four quarters leading up to a legislative election. When the incumbent is also a mayor, we account for the municipal election cycle. A constituency is *contested* if it was held by another party in the previous election or if that actual election result (between the incumbent MP and her closest rival) was decided by less than 6%. Members of parliament are *powerful* if they are prominent figures in their party and have direct connections with other elected local politicians. The *Involved\_bank* variable is an indicator set equal to 1 if the bank has positive local public entity debt on its balance sheet (and set to 0 otherwise). FE = fixed effects. Standard errors (in parentheses) are clustered by constituency. \*, \*\*, and \*\*\* indicate significance at (respectively) the 10%, 5%, and 1% levels.

## 5.3 Tracing out politically driven credit

Which types of firms most benefit from the increased credit supply? To answer this question, we use information in the firms' balance sheet data from administrative tax-files to compute various time-invariant proxies at the 2-digit industry level.<sup>35</sup>

We focus on two industry characteristics —its need for short-term liquidity and its economic dynamism—and devise two proxies for each characteristic. For shortterm liquidity needs, we calculate the ratio of working capital needs (working capital over revenues) and interest coverage (required interest payments over value added). For economic dynamism, we use the firm's productivity (ratio of value-added to total assets) and the likelihood of bankruptcy, defined as the industry's number of bankruptcy-filing firms divided by its total number of firms. We next split the sample along the sample median to identify "high" and "low" industries for our various proxies.

To study differences across industries within constituencies, we expand the sample

<sup>35.</sup> There are 62 distinct industries at the 2-digit level in France.

at the industry-constituency-bank-type level and estimate Equation (1) separately for our low and high subsamples of industries in Table 7 and report the difference between low and high and and the statistical significance of that value at the bottom of the table.

Columns [1] to [4] show that banks involved in the public entity loan market extend their credit supply around contested election only to boost short-term outcomes. Involved banks increase their credit supply to firms with high liquidity needs to finance their working capital (column [2]) or their current interest repayment (column [4]). By contrast, the same involved banks do not behave differently for industries with low short-term credit needs. In both cases, the difference between industries that are versus are not highly dependent on short-term financing is statistically significant (5% level for working capital and 1% level for interest repayments).

| $Industry\ characteristics:$   | ST liquidity needs    |                   |                         |                   | Declining industries |               |                     |                   |  |
|--|-----------------------|-------------------|-------------------------|-------------------|----------------------|---------------|---------------------|-------------------|--|
| Proxy  | Working cap/<br>Sales |                   | Interest payment/<br>VA |                   | VA/<br>Assets        |               | Prob.<br>bankruptcy |                   |  |
| Sample   | Low<br>[1]            | High<br>[2]       | Low [3]                 | High<br>[4]       | Low<br>[5]           | High<br>[6]   | Low<br>[7]          | High<br>[8]       |  |
| $\begin{array}{l} Contested \times Election \\ \times Powerful \ MP \times Involvedbank \end{array}$ | .035<br>(.069)        | .329***<br>(.118) | 076<br>(.080)           | .221***<br>(.082) | .194***<br>(.082)    | 109<br>(.090) | 121<br>(.160)       | .182***<br>(.068) |  |
| Interacted terms<br>Constituencies $\times$ Bank FE  | √<br>√                | √<br>√            | $\checkmark$            | √<br>√            | √<br>√               | $\checkmark$  | √<br>√              | √<br>√            |  |
| Region $\times$ Time FE  | •<br>√                | <b>↓</b>          | ~                       | <b>↓</b>          | •<br>√               | ~             | ~                   | ✓<br>✓            |  |
| $Bank \times Time FE$  | $\checkmark$          | $\checkmark$      | $\checkmark$            | $\checkmark$      | $\checkmark$         | $\checkmark$  | $\checkmark$        | $\checkmark$      |  |
| Constituencies $\times$ Time FE  | $\checkmark$          | $\checkmark$      | $\checkmark$            | $\checkmark$      | $\checkmark$         | $\checkmark$  | $\checkmark$        | $\checkmark$      |  |
| Observations   | $48,\!186$            | 48,186            | $48,\!186$              | $48,\!186$        | 48,186               | $48,\!186$    | $48,\!186$          | 48,186            |  |
| High <i>minus</i> Low  | .293**                |                   | .297***                 |                   | $304^{***}$          | ¢             | .304*               |                   |  |

Table 7: Firms Benefiting from Politically Driven Credit

All regressions are run at the 2-digit-industry, constituency-bank-type-quarter level. Proxies are computed as the average of firms in a given industry. Industries are then split between "low" and "high" types based on the sample median. Dependent variables are the (log of) short-term credit to private companies (quarterly frequency). Election is a dummy equal to 1 in the four quarters leading up to a legislative election. When the incumbent is also a mayor, we account for the municipal election cycle. A constituency is *contested* if it was held by another party in the previous election or if that actual election result (between the incumbent MP and his closest rival) was decided by less than 6%. An MP is *powerful* if she is a prominent figure in his party and has direct connections with other elected local politicians. The *Involved bank* dummy is set to 1 only if the bank has positive local public entity debt on its balance sheet. FE = fixed effects; VA = value-added. Standard errors (in parentheses) are clustered by constituency. \*, \*\*, and \*\*\* indicate significance at (respectively) the 10%, 5%, and 1% levels.

Turning now to the economic dynamism of these industries (columns [5]-[8] of the table), we find that most of the additional credit benefited declining sectors; for instance, firms in sectors with low productivity (column [5]) or at greater risk of filing

for bankruptcy (column [8]). In both cases, the difference is statistically significant: at no less than the 10% level for bankruptcy and at the 1% level for productivity. In terms of economic magnitude, the effect is sizable: declining sectors as well as sectors in need of short-term liquidity benefit from a credit boost of some 20% during an election year—provided those sectors' firms are within constituencies that feature a contested election involving a powerful politician.

#### 5.4 Ruling out alternative explanations

Our results show that only banks involved in the public entity loan market increase their credit supply when powerful MP face a contested election, and do so only in the short-term. These results are consistent with the reciprocal favors mechanism detailed in Section 3. The main alternative explanation is that the boards of private banks with public entity loans on their balance sheets are also more likely to include politicians who could, in the run-up to an election, directly influence the lending policy of banks that they oversee.

To rule out this hypothesis, we collect data on board members of all French cooperative banks, which account for the bulk of the lending to public entities and check to see whether or not they are also politicians (i.e., mayors or MPs). We obtain the board composition on the three following banking groups: BPCE, Crédit Agricole, and Crédit Mutuel from banks' annual prospectuses.<sup>36</sup>. Because any local bank that belongs to a mutual or cooperative bank is legally independent, we can obtain the board information for each separate entity. We find only one MP and six mayors among the 1,500 board members, which implies that the increase in credit supply we document cannot be explained simply by politicians directly overseeing banks.

Another alternative hypothesis is banks are specialized on government-related business and are active in the markets for public entity loans *and* for loans to firms which depend on government contracts. In this case, if powerful incumbents in contested constituencies implement during election years demand-side policies that result in more government contracts, then banks lending to local public entities might also be the only ones lending to the private firms who are awarded those government contracts. This would be the case for instance if a local hospital plans to expand and the construction contractor is a client of the same bank as the hospital. In this case,

<sup>36.</sup> These prospectuses are publicly available for the most recent years on the French regulator's website: http://archivesbdif.amf-france.org/

our results could partially be driven by credit demand instead of credit supply.

We believe that this hypothesis is unlikely to hold because there is no reason for the firms gaining public contracts to borrow from the same banks as the local public entities themselves. In particular, since the French public procurement procedure follows EU standards and is extremely strict, politicians have limited discretion regarding which firms can be awarded a contract—unlike their extensive discretion in choosing the bank that grants loans to local public entities. A salient consequence in our case is that such contractors are seldom in the same constituency as the focal politician. This hypothesis also cannot explain the stark difference across industries with high vs. low short-term funding needs that we find in Table 7.

Nonetheless, we formally rule out this channel by testing for whether the effect just described is driven by firms that gain public procurement contracts. We obtain data—from the public procurement "watchdog" commitee (*Observatoire économique de la commande publique*)—on which sectors benefit the most from public procurement contracts. These data form the basis of our list of 15 sectors that are responsible for nearly 70% of the value of public procurement contracts. We then re-run our baseline regression while excluding the private credit extended to firms operating in those sectors and find no quantitative differences in our estimated coefficients, implying that bank specialization is unlikely to drive our results.

# 6 How do private banks benefit? The reciprocal favors mechanism

Why would a bank active in the market for loans to local public entities increase its supply of credit to the private sector during election years? A possible explanation is that these banks alter credit allocation to curry favor with political clients who could deliver future benefits in return.

Testing this possibility requires that we identify the most "supportive" banks in an incumbent's reelection effort, which we unfortunately cannot observe directly. We circumvent this issue by ranking banks—after removing baseline heterogeneity across constituencies and banks— based on how much credit they supply to private firms before an election.

To construct the measure, we regress the volume of credit to private firms granted

by each bank on constituency-by-bank fixed effects. The residuals of this regression give us the deviation from the mean lending made by bank b in constituency c. In election years, these residuals can be interpreted as the "abnormal supply" of credit provided by bank b in constituency c during such years, which we interpret as the bank's support to the powerful incumbent's reelection effort. We create the variable  $Favor_{b,c,t}$ , defined as:  $Favor_{b,c,t} = (ResCredit_{b,c,t} - \overline{ResCredit_{c,t}})/\overline{ResCredit_{c,t}}$ . This variable measures exactly the abnormal credit supply of a bank relative to others in the constituency.

We estimate the following regression:

$$\Delta^{\tau} L_{c,b,t}^{\text{public}} = \beta(Reelected_{c,t}) \times Contested_{c,t} \times Powerful \ MP_{c,t} \times Favor_{b,c,t} + Constituency\_characteristics_{c,t} \otimes Favor_{b,c,t} + \theta_{c,t} + \delta_{b,t} + \varepsilon_{b,c,t}.$$
(2)

In this expression,  $\Delta^{\tau} L_{c,b,t}^{\text{public}}$  is the arc percentage change in the volume of lending to local public entities between the election year and  $\tau$  years later,  $\tau \in \{2, 4\}$ ;<sup>37</sup> *Favor*<sub>b,c,t</sub> is the deviation in bank b's supply of credit in constituency c before election t relative to the constituency-election mean.<sup>38</sup> The indicator variable *Reelected*<sub>c,t</sub> is set to 1 only if the incumbent from the year-t election is reelected in year t + 1. We denote by  $\otimes$  the outer product, so that the term *Constituency characteristics*<sub>c,t</sub> $\otimes$ *Favor*<sub>b,c,t</sub> allows for each combination of constituency characteristics (*Contested*<sub>c,t</sub>, *Powerful*  $MP_{c,t}$ , and *Reelected*<sub>c,t</sub>) with each other and with the bank variable *Favor*<sub>b,c,t</sub>.  $\theta_{c,t}$  are constituency × election fixed effects and  $\delta_{b,t}$  are bank × election fixed effects. Standard errors are clustered at the constituency level.

The inclusion of constituency × election fixed effects implies that the coefficient of interest  $\beta$  measures the difference in growth of loans to local public entities within the same constituency and for the same election, across banks that helped the politician by increasing relatively more their credit supply during the election vs. not. This

<sup>37.</sup> The arc percentage change is computed as  $g_t = (X_t - X_{t-1})/[(X_t + X_{t-1}) \times 0.5]$ . This type of growth rate has become standard in the analysis of establishment and firm dynamics because it shares some useful properties with log differences and can also accommodate a large number of zeros (Törnqvist, Vartia, and Vartia, 1985; Davis, Haltiwanger, and Schuh, 1998).

<sup>38.</sup> More precisely: in the "abnormal supply" regression just described, we compute the mean of the residuals in each constituency-election cell and then rank the banks according to the size of their abnormal supply relative to this mean by taking the mean deviation (in percentage). This is our variable  $Favor_{b,c,t}$ .

comparison reveals whether the most supportive banks in the incumbent's reelection effort gain market share post-election at the expense of other (non-supportive) banks in the same constituency.

Table 8 presents the regression results. We find that in constituencies with a contested powerful incumbent, banks that increase their credit supply to the *private* sector during the pre-election are granted more loans from local *public* entities in the two years (columns [1] and [2]) and four years (columns [3] and [4]) after the election. Consistent with the interpretation of a powerful MP returning the favor, this positive effect is observed only if the incumbent is reelected. If the incumbent loses, then the most supportive banks see a reduction in their market shares. Results are similar when we include bank × election fixed effects to account for time-varying shocks at the bank level, which could be driving not only the private sector's supply of credit but also the propensity of banks to lend to local public entities.

| Dependent variable   | $\Delta^2 L_c^{\mathrm{I}}$ | public<br>e,b,n       | $\Delta^4 L_{c,b,n}^{\rm public}$ |                        |  |
|--|-----------------------------|-----------------------|-----------------------------------|------------------------|--|
|  | [1]                         | [2]                   | [3]                               | [4]                    |  |
| $\begin{array}{l} Contested \times Powerful \ MP \times Favor \\ \times Reelected \end{array}$ | $.749^{***}$<br>(.295)      | $.623^{**}$<br>(.274) | $.870^{***}$<br>(.354)            | $.806^{***}$<br>(.333) |  |
| $Contested \times Powerful \ MP \times Favor$  | $661^{***}$<br>(.248)       | $535^{**}$<br>(.230)  | $699^{***}$<br>(.289)             | $617^{**}$<br>(.273)   |  |
| Interacted terms   | $\checkmark$                | $\checkmark$          | $\checkmark$                      | $\checkmark$           |  |
| Constituencies $\times$ Election FE  | $\checkmark$                | $\checkmark$          | $\checkmark$                      | $\checkmark$           |  |
| $\begin{array}{l} \text{Bank} \times \text{Election FE} \\ \text{Observations} \end{array}$    | 94,220                      | ✓<br>94,220           | 87,811                            | √<br>87,811            |  |

Table 8: Evidence for Reciprocal Favors—Banks' Rewards

The dependent variable is the arc percentage change in volume of lending to local public entities between election year t and t + 2 (columns [1] and [2]) or t + 4 (columns [3] and [4]). That change is computed as  $g_t = (X_t - X_{t-1})/[(X_t + X_{t-1}) \times 0.5]$ . The Favor variable is the percentage difference between the private credit granted by a given bank within its constituency and the constituency mean in election year t; Reelected is a dummy set equal to 1 if the incumbent running in year t is reelected (and is otherwise set to 0). FE = fixed effects. Standard errors (in parentheses) are clustered by constituency. \*, \*\*, and \*\*\* indicate significance at (respectively) the 10%, 5%, and 1% levels.

The total debt of local public entities that we observe on banks' balance sheets is actually the sum of two distinct components that can be identified in the data: (i) local debt controlled by local politicians;<sup>39</sup> and (ii) local debt controlled by the central

<sup>39.</sup> Local politicians have control over how to allocate the debt because it is either issued directly by

government.<sup>40</sup> In Table 9 we reproduce our analysis separately for debt controlled by local politicians (columns [1] and [3]) and debt controlled by the central government (columns [2] and [4]). Consistently with our reciprocal favors hypothesis, we find that the increase in public debt following an incumbent's reelection is is observed only for the public debt that local politicians can influence. Thus banks that lent more to the private sector during election years did not, at the same time, experience a change in their share of local public debt controlled by the central government.

Table 9: Evidence for Reciprocal Favors—Banks' Rewards Decomposed

| Dependent variable   | $\Delta^2 L_c^{\rm p}$ | bublic<br>b,n  | $\Delta^4 L_{c,b,n}^{\rm public}$ |               |  |
|--|------------------------|----------------|-----------------------------------|---------------|--|
| Politicians controlling public debt  | Local<br>[1]           | Central [2]    | Local<br>[3]                      | Central [4]   |  |
| $\begin{array}{l} Contested \times Powerful \ MP \times Favor \\ \times Reelected \end{array}$ | $.624^{**}$<br>(.279)  | .109<br>(.097) | $.685^{**}$ $(.326)$              | .022 $(.102)$ |  |
| $Contested \times Powerful \ MP \times Favor$  | $469^{***}$<br>(.198)  | 110<br>(.073)  | $333^{**}$<br>(.125)              | 045 $(.0701)$ |  |
| Interacted terms   | $\checkmark$           | $\checkmark$   | $\checkmark$                      | $\checkmark$  |  |
| Constituencies $\times$ Election FE  | $\checkmark$           | $\checkmark$   | $\checkmark$                      | $\checkmark$  |  |
| Bank $\times$ Election FE  | $\checkmark$           | $\checkmark$   | $\checkmark$                      | $\checkmark$  |  |
| Observations   | $94,\!220$             | $94,\!220$     | 87,811                            | 87,811        |  |

The dependent variable is the arc percentage change in volume of lending to local public entities between election year t and t + 2 (columns [1] and [2]) or t + 4 (columns [3] and [4]); it is computed as  $g_t = (X_t - X_{t-1})/[(X_t + X_{t-1}) \times 0.5]$ . Total debt of local public entities is decomposed into debt controlled (a) by local politicians (local government and entities controlled by local politicians) in columns [1] and [3] and (b) by the central government in columns [2] and [4]. As before, *Favor* is the percentage difference between the private credit granted by a given bank within its constituency and the constituency mean during election year t, and *Reelected* is an indicator set to 1 only if the incumbent running in year t is reelected. FE = fixed effects. Standard errors (in parentheses) are clustered by constituency. \*, \*\*, and \*\*\* indicate significance at (respectively) the 10%, 5%, and 1% levels.

Finally, Tables 8 and 9 allow us to investigate the "historical dependency" of the reciprocal favors mechanism. When the incumbent is not reelected, we find that an increase in the supply of credit to the private sector during an election year actually leads to a reduction in the amount of loans to local public entities on banks' balance sheets: the coefficient for *Contested* × *Powerful*  $MP \times Favor$  is negative and significant

the local government (municipalities or regional council) or issued by local public entities controlled by local politicians, e.g. public housing.

<sup>40.</sup> There is central government control of local debt that is issued by local services and agencies of the central government.

at the 5% level. This is a key finding because it enables us to rule out a bankconstituency specific shock that simultaneously affects the volumes of credit extended to local private firms and to local public entities. If that was the case, we should also observe a positive link between the bank supply of credit to private firms and the growth of loans to local public entities during the years following an election in which the incumbent is *not* reelected. However, our results are more consistent with the newly elected politician "punishing" banks that favored the former incumbent.

# 7 Conclusion

This paper provides evidence that—even with low levels of corruption, a limited need for (or possibility of) government bailouts, and full formal separation between politicians and bank-governing institutions—private banks may be motivated, by the possibility of future benefits, to distort their supply of credit to the local economy so as to curry favor with powerful politicians during election years.

Such incentives arise because private banks can thereby gain access to a profitable segment of the debt market: loans to local public entities. In France, influential politicians can reciprocate the favor of higher credit to the local economy during a contested election by ensuring the bank's access to the public entity loan market—because that market is not regulated and so nearly all allocation of loans to banks is discretionary.

This quid pro quo is possible because loan contracts to local public entities are not subject to the Public Procurement Code, a loophole that is not unique to France. In several countries, loan contracts are governed by private law and are therefore exempt from tendering and procurement legislation. Hence some aspects of stricter regulation (e.g., requiring that firms call for tenders) may not be enforceable. In the absence of an applicable code, politicians' ethical behavior could still be encouraged by the central government's promoting transparency and accountability with respect to the credit contracted by local governments. For example, the public reporting of credit contract characteristics—especially the interest rate and maturity—would reduce the asymmetry of information between an incumbent and her electorate and thus, one would hope, reduce the spread on credit to public loans. One benefit of such a policy would be the subsequent positive fiscal impact. Overall, our findings highlight the need for research to transcend easily observed channels so that we may gain a broader appreciation of the full role of bank influence in politics, better understand the possible distortions due to influence-seeking behaviors, and more completely picture the optimal form of regulation.

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# A Appendix: Construction of political variables

## A.1 Incentives of the incumbent

We use the extent of political competition to proxy for valuation of election favors by the incumbent MP. That extent is determined by the following inputs.

- 1. Upcoming contested elections. We define "close" elections as those decided by a small margin. More precisely, we use actual election results to compute the difference between: (a) the votes received by the incumbent MP and those received by his closest rival in the round during which that incumbent wins the election; or (b) the votes received by the newly elected MP and those by the incumbent MP in the round during which the incumbent loses. We then create the dummy variable *Contested\_election*, which is set to 1 only if this winning margin is less than 6% (though our results are robust to winning margins that range from 2% to 14%).<sup>41</sup>
- 2. Not a party stronghold. For an incumbent, we say that a constituency is not a stronghold of her party if, before the preceding election, that constituency was held by another party.

## A.2 Political power of the incumbent

We assess an incumbent's power in terms of his influence within the party and his likelihood of being supported by other politicians in the same party.

Our proxies for influence within the incumbents' party are based on two factors.

- 1. The incumbent has significant political longevity. We create the Powerful MP indicator, which is set to 1 only if the incumbent held an MP office at least three times before the focal election. We consider political longevity across constituencies by counting the total number of an MP's mandates (even if they were completed in different constituencies). We also account for alternate MP elections and for by-elections.
- 2. The incumbent has had a political career at the national level. Following Bertrand, Kramarz, Schoar, and Thesmar (2018), we identify the set of incumbents that

<sup>41.</sup> Given the small error margins, we use actual election results instead of poll data.

previously served as a minister (or secretary of state) in one of the 22 governments of the Fifth Republic.<sup>42</sup>

Finally, we use the following inputs to devise our proxy for the incumbent's ability to influence other politicians.

- 1. The incumbent is supported by the central government. We identify the set of incumbents who are members of the political party in office in the central government.
- 2. The incumbent is supported by the regional government. We identify the set of incumbents who are members of the political party in office in the regional council, which is in charge of regional economic development.<sup>43</sup>
- 3. The incumbent is supported by the mayors in her constituency. We identify the set of incumbents who are supported—in terms of party affiliation—by more than 50% of the mayors in her constituency. (Similar results are obtained when we use cutoff values of 40% and 60%.)

# A.3 Additional Tables

<sup>42.</sup> The list of ministers and secretaries of state is from the French Home Affairs. The Fifth Republic was introduced by a change in the Constitution Law effective 4 October 1958, and that regime has extended to this day.

<sup>43.</sup> We collect data for the Regional Council election from 2008 to 2016. Here our indicator is set to 1 only if the incumbent is from the same party as the regional council at least one year before a parliamentary election; note that the elections for parliament and regional council are not synchronized.

| Dependent variable:   | Short-term credit                                     |                        |                        |                         |                         |                         |  |
|---|---|------------------------|------------------------|-------------------------|-------------------------|-------------------------|--|
| Sample  | Involved<br>[1]                                       | Not<br>involved<br>[2] | All<br>[3]             | All<br>[4]              | All<br>[5]              | All<br>[6]              |  |
| $Contested \times Election \times Powerful \ MP$  | $\begin{array}{c} 0.110^{***} \\ (0.037) \end{array}$ | -0.005<br>(0.052)      | -0.004<br>(0.053)      | -0.039<br>(0.033)       |                         |                         |  |
| $\begin{array}{l} \textit{Contested} \times \textit{Election} \times \textit{Powerful MP} \\ \times \textit{Involved bank} \end{array}$ |   |                        | $0.114^{*}$<br>(0.065) | $0.090^{**}$<br>(0.041) | $0.081^{**}$<br>(0.038) | $0.091^{**}$<br>(0.039) |  |
| Bank level controls   | $\checkmark$  | $\checkmark$           | $\checkmark$           | $\checkmark$            | $\checkmark$            | $\checkmark$            |  |
| Interacted terms  | $\checkmark$  | $\checkmark$           | $\checkmark$           | $\checkmark$            | $\checkmark$            | $\checkmark$            |  |
| Bank FE   | $\checkmark$  | $\checkmark$           | $\checkmark$           |                         |                         |                         |  |
| Constituencies FE   | $\checkmark$  | $\checkmark$           |                        |                         |                         |                         |  |
| Region $\times$ Time FE   | $\checkmark$  | $\checkmark$           |                        |                         |                         |                         |  |
| Region $\times$ Bank type $\times$ Time FE  |   |                        | $\checkmark$           | $\checkmark$            |                         |                         |  |
| Bank type $\times$ Time FE  |   |                        |                        |                         | $\checkmark$            |                         |  |
| Bank type $\times$ Constituencies FE  |   |                        | $\checkmark$           |                         |                         | —                       |  |
| Bank $\times$ Constituencies FE   |   |                        |                        | $\checkmark$            | $\checkmark$            | $\checkmark$            |  |
| Constituencies $\times$ Time FE   | _   |                        | _                      | _                       | $\checkmark$            | $\checkmark$            |  |
| Bank $\times$ Time FE   | _   |                        | _                      | —                       | _                       | $\checkmark$            |  |
| Observations  | $544,\!023$   | $1,\!138,\!216$        | $1,\!682,\!239$        | $1,\!675,\!446$         | $1,\!675,\!446$         | $1,\!674,\!387$         |  |

#### Table A.1: Role of Involved Banks - Adding Bank-Level Controls

The dependent variables is the (log of) short-term credit to private companies (quarterly frequency). The included controls are bank size (log assets), deposit ratio, equity ratio, perentage of non-performing loans, and net interbank debt/assets. Regressions are weighted by the share of bank credit in the constituency. FE = fixed effects. Standard errors (in parentheses) are clustered by constituency. \*, \*\*, and \*\*\* indicate significance at (respectively) the 10%, 5%, and 1% levels.