

Lobbying on Regulatory Enforcement Actions: Evidence from U.S. Commercial and Savings Banks*

Thomas Lambert[†]

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Abstract

This paper analyzes the relationship between bank lobbying and supervisory decisions of regulators, and documents its moral hazard implications. Exploiting bank-level information on the universe of commercial and savings banks in the United States, I find that regulators are 44.7 percent less likely to initiate enforcement actions against lobbying banks. This result is robust across measures of lobbying, and accounts for endogeneity concerns by employing instrumental variables strategies. In addition, I show that lobbying banks are riskier and reliably underperform their non-lobbying peers. Overall, these results appear rather inconsistent with an information-based explanation of bank lobbying, but consistent with the theory of regulatory capture.

JEL classification codes: D72, G21, G28

Keywords: banking supervision, enforcement actions, lobbying, moral hazard, regulatory capture, risk taking

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[†]Rotterdam School of Management, Erasmus University, PO Box 1738, 3000 DR Rotterdam, The Netherlands, email: t.lambert@rsm.nl, phone: +31 (0)10 408 1450, webpage: www.sites.google.com/site/lambertthom.

“There are multiple causes of the financial crisis. But we cannot ignore the element of “capture” in the systemic failures of oversight, regulation, and disclosure in the financial sector.”

– Daniel Kaufmann, *Forbes* on January 27, 2009¹

1 Introduction

A major task of financial economics and political science is to explain the *raison d’être*, but also the consequences, of the influence of the banking industry on the government. When the banking system falls short to deliver outcomes serving the public interest represented by the government, it is necessary to make use of regulatory actions to correct these failures. However, regulatory agencies are delegated institutions embedded in industry structures that are subject to agency problems and economic incentives that may serve the regulated industry at the expense of the public interest, resulting in regulatory capture (Laffont and Tirole, 1993). The forces promoting capture include career concerns, relationships, social identification, campaign contributions, lobbying, while they are neither lack of integrity nor bribery (Zingales, 2013). Lobbying is assuredly one the most salient force of influence for the banking industry, enabling to realize benefits, such as self-serving regulation, but also to avoid costs, such as enforcement actions.²

The recent financial crisis in turn demonstrated that weaknesses in regulatory oversight and enforcement significantly contributed to the buildup of risk ahead of the crisis (Kane, 2012).³ In particular, regulatory capture, associated with the influence of banks’ lobbyists, magnified the moral hazard problem—that influential banks can take extra risks expecting to avoid enforcement when things get bad. Such preferential treatments, in conjunction with the moral hazard problem, fueled the financial crisis. Despite the continuing debate on this issue, little systematic examination of the evidence has been undertaken on the incidence and drivers of lobbying efforts made by the banking industry.

In this paper I attempt to contribute to this task by pursuing two goals. First, I empirically examine the relationship between bank lobbying and supervisory decisions of

¹“Corruption and the Global Financial Crisis”, *Forbes*, 27 January 2009. Daniel Kaufmann is senior fellow at the Brookings Institution and formerly director of governance at the World Bank.

²Banking regulation and supervision are distinct activities, though complementary. Regulation involves formulating and issuing specific rules, under government law, that mandate or limit certain banking activities for financial stability or other reasons. Supervision instead involves monitoring and examining banks as well as enforcing corrective measures if banks are deemed deficient. The focus of this paper is on supervision, but I refer to agencies involved in either supervision or regulation as regulators.

³See also Johnson and Kwak (2010), Barth, Caprio, and Levine (2012), and Admati and Hellwig (2013) who provide many examples of failures and gaps in banking regulation and supervision and compelling arguments for why it is harmful. See also

regulators. In particular, I concentrate my analysis on the issuance of regulatory enforcement actions, which are crucial micro-prudential supervisory tools to ensure the safety and soundness of the banking system. Two sets of existing theories motivate the examination of this relationship. On the one hand, the decision to lobby regulators may be driven by information-transmission motives. Banks have superior information than regulators and partly reveal their information by endogenously choosing their lobbying effort (Grossman and Helpman, 2001, offer an exhaustive literature review). Under this information-based view, lobbying provides regulators with valuable information about the bank that results in better informed supervisory decisions not impeding the bank's long-term value maximization objective. This view predicts that regulators are less likely to issue a (costly) enforcement action against lobbying banks, which are in turn likely to perform relatively better than their non-lobbying peers. On the other hand, regulators might be laxer in their enforcement decisions because they may be manipulated by banks they supervise, consistently with the theory of regulatory capture put forward by Stigler (1971) and formalized by Peltzman (1976). Under this regulatory capture view, lobbying banks engage in specialized rent seeking for preferential treatment. This view also predicts a negative association between lobbying and the probability of an enforcement action, which accordingly involves moral hazard elements. Second, as the merit of these two views is ultimately an empirical question, my second goal is to provide insights into these theories. To do so, I explore the implications of lobbying by banks on their risk-taking behavior and performance.

I address the first goal by making use of a large, partly hand-collected, dataset of commercial and savings banks spanning the period of intense enforcement activity which characterized the aftermath of the financial crisis. I focus on severe formal enforcement actions issued by federal agencies in charge of the supervision of commercial and savings banks in the United States—namely, the Office of the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC), and the Federal Reserve System (Fed). My analysis reveals clear evidence that banks engaged in lobbying activities are less likely to be subject to a severe enforcement action relative to their non-lobbying peers. According to my estimates, lobbying reduces the probability of getting a severe enforcement action by 44.7 percent. I also find that banks benefit from experience in lobbying to obtain favorable treatment: one more year of lobbying experience reduces the probability of an enforcement action by 2.5 percent.⁴ Although the documented effects hold regardless the regulatory agency considered, they are significantly more pronounced

⁴This is consistent with Kerr, Lincoln, and Mishra (2014), among others, who argue that barriers to entry induce persistence in lobbying. The high fixed costs (such as searching for and hiring the right lobbyists and educating them about the bank's interests and agenda) and returns to experience (such as the costs of learning the process and establishing continuing relationships with regulators) both act as barriers to entry to beginning to lobby. These barriers to entry also explain why relatively few banks lobby despite the huge benefits from lobbying (including the avoidance of costly supervisory decisions).

for national banks lobbying the OCC. Critically, these results are robust to controlling for bank fixed effects, changes in local economic conditions and variables proxying each of the six components of the CAMELS rating (i.e., the U.S. supervisory rating), which serves as decision criteria in the issuance of an enforcement action.⁵ Moreover, my results are weaker at the intensive margin of how much banks spend on lobbying once the decision has been made to participate in the process. However, whether banks hire revolving door lobbyists or directly lobby the OCC, the FDIC, or the Fed further reduce the probability of receiving a severe enforcement action.

I perform a number of tests to establish the robustness of my results. First, I adopt instrumental variables (IV) strategies to mitigate some of the endogeneity concerns. I employ proper instruments that are either predetermined or bank–time-level varying by building on the theoretical and empirical literature on the reasons banks start lobbying. In particular, my first instrument proxies for market size (Bombardini, 2008), while the second for a certain cost of lobbying (Gibson and Padovani, 2012; Kerr, Lincoln, and Mishra, 2014). Second, although I control for CAMELS rating and other financial, demographic, and regional economic factors, it is possible that banks’ lobbying activities are correlated with other factors unaccounted for by my control variables, such as the systemic importance of banks. To accommodate this possibility, I consider different definitions of my control variables and conduct a battery of subsample analyses. Third, as I recognize that the decision to lobby may not be assigned at random, I also use matching methods to account for potential selection on observables. I do not find any evidence that changes my prior conclusions.

With regard to the second goal, I seek to disentangle the explanations of these results by examining the risk-taking behavior of lobbying banks and their performance. I first examine aggregate bank risk and find evidence that lobbying banks are associated with higher risk taking. In economic terms, lobbying banks increase their default risk (measured by the Z-score) by 12 percent. I also consider liquidity and credit risk and find consistent results. Specifically, I find that lobbying banks expand more aggressively (on and off the balance sheet) in the run-up to the financial crisis, but end up with severe problems of bad loans following it. Then, I find that lobbying banks reliably underperform their non-lobbying peers. In economic terms, lobbying banks experience almost a 50 percent reduction in their return on assets (ROA). Underperformance persists when regulators face greater uncertainty (normally favoring informational lobbying) as well as in the longer run. Overall, the collage of evidence appears to be consistent with a view that moral hazard likely contributed to the increase in risk taking at lobbying banks and, thereby, suggests specialized rent seeking for preferential treatment. In other words, it

⁵See Peek, Rosengren, and Tootell (1999) for a comprehensive discussion on the importance of these supervisory ratings.

suggests that the negative link between lobbying and the probability of being subject to an enforcement action fits better with the theory of regulatory capture, even though it is hard to firmly establish that some information-based considerations do not drive as well the lobbying decision made by banks.

This paper is related to several strands of the political economy and banking literature. This study belongs to the literature on regulatory design, spanning from the Chicago theory of Stigler (1971) and Peltzman (1976) to the rent-seeking and corruption theories (Shleifer and Vishny, 1993, 1994). Despite a rich theoretical literature, there is a limited number of papers that document (in developed economies) the various mechanisms through which financial institutions seek to affect regulation or bailout program in their favor. For example, Braun and Raddatz (2010) provide international evidence suggesting that banks use their political influence to achieve beneficial regulations. Kroszner and Strahan (1999) present compelling evidence that pressures from special interest groups account for the pattern of bank branching deregulation of the 1970s and 1980s in the United States. In the context of the recent crisis, Mian, Sufi, and Trebbi (2010) show that the Congress members were more likely to support bank bailout legislation of 2008 when they received higher contributions from the financial sector. Duchin and Sosyura (2012) show that capital allocation to banks under the Troubled Asset Relief Program (TARP) is partly determined by their political connections. Igan and Mishra (2014) examine how spending on lobbying by the financial sector affected deregulation in the run-up to the crisis, while Igan, Mishra, and Tressel (2012) demonstrate that lenders who lobby harder on mortgage issues have higher mortgage credit growth, securitize more aggressively, and end up with higher delinquency rates *ex post*.⁶

This paper is also connected to studies on moral hazard and risk taking in the banking industry. Allen, Carletti, Goldstein, and Leonello (2015) review and discuss the theoretical literature. Empirically, Duchin and Sosyura (2014) study the effect of TARP investments on bank risk taking and credit origination. The authors show that bailed-out banks initiate riskier loans and shifts assets toward riskier securities after receiving government assistance, suggesting that moral hazard likely contributed to the increase in risk taking. Black and Hazelwood (2013) analyze risk taking by bank size and find that risk of loans originated increased for large TARP banks, but decreased at small TARP banks.⁷ Kostovetsky (2015) shows that moral hazard played a role in the last fi-

⁶Outside the banking industry, Faccio, Masulis, and McConnell (2006) relatedly show how politically connected firms are significantly more likely to be bailed out in distress, yet exhibit worse performance afterwards, consistent with rent-seeking theories. Adelino and Dinc (2014) find that, during the 2008 financial crisis, nonfinancial firms that lobbied more were more likely to receive stimulus funds.

⁷Dam and Koetter (2012) look at bank bailouts in Germany during 1995-2006 and show that a higher probability of being bailed out leads to additional risk taking. Exploiting events surrounding the removal of public guarantees, the findings of Gropp, Grundl, and Guettler (2014) also suggest substantial moral hazard effects at savings banks in Germany. In another study of Germany, Berger, Bouwman, Kick, and Schaeck (2016) report that both regulatory interventions and bailouts are associated with reductions in

nancial crisis by affecting the risk-taking behavior of politically connected listed financial institutions.⁸

This paper adds to these literatures in three key aspects. First, this paper helps reconcile these prior findings by illuminating one channel through which lobbying affects risk-taking behavior by banks. In particular, I show that banks engage in lobbying to gain preferential treatment, allowing them to “safely” pursue riskier strategies. Second, I address this question in a broad perspective by analyzing banks that represent the vast majority of depository institutions in the United States and that account for a very large portion of overall bank assets, instead of limiting the analysis to large or listed financial institutions. The results of this paper are in this respect directly applicable to the part of the banking industry that is important in terms of economic size, but also in terms of impact on financial stability. Third, I focus on banking supervision (not regulation) and, to my knowledge, I bring in a micro-prudential dimension not yet systematically explored in other studies—namely, the issuance of regulatory enforcement actions.

I also complement a small number of studies that examine the relationship between special interest politics and supervisory events. These studies demonstrate likewise that political connections bias supervisory decisions of other regulatory agencies, such as the Nuclear Regulatory Commission (Gordon and Hafer, 2005), the Internal Revenue Service (Richter, Samphantharak, and Timmons, 2009), or the Securities Exchange Commission (Yu and Yu, 2012; Correia, 2014). In the banking literature, Agarwal, Lucca, Seru, and Trebbi (2014) find no evidence that corruption or career prospects in the banking industry are linked to the relative leniency of state banking regulators vis-à-vis federal regulators in assigning CAMELS ratings.⁹ Shive and Forster (2016) examine the determinants and effects of ex-regulators hiring by listed financial institutions. The authors find scant evidence of decrease in the number of regulatory events and in the size of fines around the time of hires.¹⁰ Another relevant paper, contemporaneous to mine, is Lim, Hagendorff, and Armitage (2016). From a sample consisting of 448 listed banks, they find that members of bank boards who serve regulatory agencies by undertaking public service positions allow banks to access larger public subsidies by shifting risk to the financial safety net. Connected banks benefiting from preferential treatment in supervision is one potential reason the authors advance for their findings. My paper differs from these studies in its focus, and in its attempt to gauge the two explanations

risk taking, and regulatory interventions are associated with important reductions in liquidity creation.

⁸See relatedly Fahlenbrach, Prilmeier, and Stulz (2012) and Ellul and Yerramilli (2013) who show that differences in risk culture and organizational structure can have significant influence on the level of risk taking by banks and the way they fare during the crisis years.

⁹See also Kisin and Manela (2016) who find that higher fee paying banks get more lenient regulatory treatment, which leads to a buildup of risk.

¹⁰Using a large sample of publicly available curricula vitae, Lucca, Seru, and Trebbi (2014) identify evidence of countercyclical net hiring patterns by federal and state banking regulators, with greater gross employee inflows and outflows at regulators during periods of high enforcement activity.

of the result that banks lobby to circumvent regulatory enforcement actions. Focusing on commercial and savings banks engaged in lobbying and shedding lights on the explanations behind its effect are key for our understanding of the political economy of banking supervision.

Finally, this work speaks to the empirical literature on the real effects of banking regulation and supervision. Such work encompasses studies across the globe (e.g., Barth, Caprio, and Levine, 2004; Beck, Demirgüç-Kunt, and Levine, 2006; Delis and Staikouras, 2011) as well as in a single country (e.g., Berger and Udell, 1994; Jayaratne and Strahan, 1996; Kroszner and Strahan, 1996; Illueca, Norden, and Udell, 2014; Berger, Bouwman, Kick, and Schaeck, 2016; Danisewicz, McGowan, Onali, and Schaeck, 2016). Interestingly, Delis, Staikouras, and Tsoumas (2016) distinguish between different types of enforcement actions and assess their respective impact on bank risk and performance, while Kupiec, Lee, and Rosenfeld (2017) estimate the sensitivity of banks' loan growth to CAMELS rating changes.

The rest of the paper continues as follows. Section 2 presents the U.S. banking micro-prudential supervision, provides a brief description of bank lobbying, and develops the hypotheses. Section 3 describes the data and variables. Section 4 contains empirical results. Section 5 concludes.

2 Institutional Setting and Hypotheses

2.1 The Enforcement Actions in the U.S. Banking Supervisory Process

The United States evolves in a dual federal-state banking system. The OCC, the FDIC, and the Fed share the regulatory and supervisory responsibilities for commercial and savings banks at the federal level, and with the banking departments of the various states. The primary agency in charge with the supervision of a bank is a function of its charter and line of business. Federally chartered banks (usually referred to as national banks) are primarily supervised by the OCC, while state-chartered banks are supervised by the Fed (if members of the Fed) or the FDIC (if not members of the Fed). The Fed has also supervisory authority for all bank holding companies.

The major objective of micro-prudential supervision is to ensure safe and sound banking practices and compliance with banking laws and regulations. To achieve this objective, the supervisory process entails both off-site and on-site examinations (Cole, Cornyn, and Gunther, 1995). Off-site monitoring is a “data-driven” approach. This approach uses early-warning models, combining prior examination data and information that banks

provide in their Quarterly Report on Condition and Income (or Call Report) filings, to monitor banks between on-site examinations. In on-site examinations, a bank's primary agency verifies the content of Call Reports and gathers additional in-depth information by meeting the management, reviewing and evaluating its loan portfolio, and reading additional documents from the bank. The regulatory agencies maintain large staffs to conduct periodical on-site examinations (every 12 months, or 18 months if the bank meets certain criteria).

A variety of enforcement actions can be imposed if the regulator identifies during its examination any financial weaknesses, managerial problems, or violations of banking laws or regulations.¹¹ The enforcement actions require the institution to take corrective measures and, thereby, restore safety and soundness by stabilizing the institution, altering bank practices and behaviors, and averting potential losses to the deposit insurer. Non-compliance with enforcement actions often carries heavy penalties, including the termination of deposit insurance. Regulatory enforcement actions, rather than the mere adoption of banking laws and regulations, constitute the essential component of effective supervision of banks.

Regulators may impose several types of enforcement actions (OCC, 2011, PPM 5310-3; FDIC, 2016, Section 15.1; Fed, 2016, Section 5040.1; see also Curry, O'Keefe, Coburn, and Montgomery, 1999). On the one hand, *informal* actions usually request an institution to adopt a board resolution or agree to the provisions of a memorandum of understanding to address the problem. Informal actions are neither disclosed to the public nor legally enforceable. On the other hand, *formal* actions are used when informal actions are inadequate or ineffective in influencing bank to correct identified problems. Formal actions—hereafter grouped according to their seriousness—include civil money penalties, prohibition and removal orders, formal written agreements, cease and desist orders, prompt corrective action directives, and deposit insurance threats. Civil money penalties and prohibition and removal orders are usually not issued against the institution itself but against individuals associated with the institution because of violation of laws, regulations, and other written agreements.¹²

In the analysis, I consider the following formal actions issued against institutions. First, *formal written agreements* are bilateral agreements between the bank and the regulator which set out details on actions to be taken or proscriptions to be followed in the written

¹¹The management problems leading the initiation of enforcement actions are typically poor loan administration, insufficient corporate planning, inadequate internal control mechanisms, while financial problems leading actions are typically failure to file with regulators, inadequate capital and loan-loss reserves, poor liquidity, inadequate earnings, important volume of poor-quality assets, undue concentration of loans, excessive asset growth, failure to recognize losses, insider payments.

¹²These actions are faintly related to the core of bank safety and soundness. However, when illegal actions of individuals threaten the safety and soundness of the institution, a cease and desist order or a formal written agreement against the institution is issued as well (see Ioannidou, 2005).

agreement. Written agreements are not followed by a federal court case verdict. Second, *cease and desist orders* are issued after hearings. They are injunctive-type orders that may be issued when a bank has engaged or is about to engage in an unsafe or unsound practice, or a violation of law. A bank subject to such an order is required to follow the proscriptions set out in the order and can be directed to take specified remedial actions. Unlike formal written agreements, cease and desist orders can be enforced in court. Third, *prompt corrective actions* are automatically imposed on banks with deficient capital levels. These actions impose banks to take corrective measures to restore capital, and require the submission of a capital restoration plan within a predetermined time period. In addition, prompt corrective action framework includes a list of discretionary action that the regulator may impose given the undercapitalization category of the bank (e.g., ban on executive pay, dismissal of board, restrictions on asset growth, prohibition of acquisitions, establishing new branches, issuing new lines of credit). In the analysis, I thus do not consider mandatory prompt corrective actions but instead the issuance of prompt corrective action directives, for which the regulator has the discretion to impose additional actions on the bank. Fourth, *deposit insurance threats* are the most severe type of enforcement action the regulators can bring before the bank is placed in receivership, which lead to the sale or termination of the bank's charter.

It is also important to note that the examinations culminate in the assignment by a team of examiners of a CAMELS rating, which reflects different degrees of bank health and is scaled between 1 and 5. Banks with a rating of 1 or 2 are considered with no (few) significant regulatory concerns, whereas those with 3, 4, and 5 ratings present moderate to extreme levels of regulatory concerns. The CAMELS rating is a critical input into numerous types of enforcement actions issued. An informal action is generally directed to institutions receiving a 3 rating, while highly rated (4- and 5-rated) banks are in principles subject to a formal action. The CAMELS rating is however not the only factor conditioning the issuance of an action. The regulator may indeed decide to issue an informal action rather than a formal action and vice versa. There are instances where the current condition of the bank reflects significant improvement resulting from earlier actions. In other instances, individual or economic circumstances make CAMELS ratings inappropriate (e.g., when the management has been replaced, or in time of crisis when there is higher probability of failure as the health of borrowers and the value of collateral securing loans deteriorate). Bank size may also be a factor triggering (or not) an action, especially in the presence of asymmetric information (Ioannidou, 2005). Regulators thus have substantial discretion along the supervisory process, from the CAMELS grading to the decision to initiate and to determine the severity of an enforcement action.¹³

¹³The Center for Public Integrity has published many articles on the hands-off approach of many financial regulators during the past decade. In "FDIC Slow to Pursue Failed Bank Directors, Recover Tax Dollars" (Center for Public Integrity, March 15, 2011 and updated on May 19, 2014), Ben Hallman reports about the United Commercial Bank (UCB), which is based in San Francisco and got a \$300

Furthermore, regulatory agencies' deliberations are confidential by regulation and rarely become public.

2.2 Bank Lobbying Activities and the Lobbying Disclosure Act of 1995

Lobbying is a primary avenue through which banks attempt to influence on regulations and supervisory decisions in the United States. Lobbying is the strategic transmission of information in private meetings and venues between interest groups and politicians, regulators, and their staffs. In practice, information may have many forms, such as messages, signals, threats, commitments, facts, arguments, statistics, or some combination thereof.¹⁴ Interest groups have budgets for and spend money on these lobbying activities, which imply either hiring external lobbyists or setting up in-house lobbying teams. Lobbyists, whether external or in-house, spend time with regulators (and politicians) to clarify and advocate the positions of their clients. The influence of interest groups in the political system of the United States is, therefore, under constant scrutiny. Legislative reforms have been undertaken to respond to the perceived need for transparency and understanding of the activity of special interest groups and their lobbyists. In particular, the LDA of 1995 and its Amendments impose strict disclosure rules for every individual and firm lobbying the Congress and federal agencies.¹⁵ According to the LDA, lobbyists have to file registration and periodic reports indicating, among other data, the amounts received by clients as compensation for their services, the issue areas and agencies lobbied.¹⁶

million government bailout from the TARP: “[...] examiners had bestowed on UCB a favorable “2” rating on the FDIC scale used to classify a bank’s overall condition. That rating denotes “satisfactory performance by management and the board and satisfactory risk management practices,” according to FDIC guidelines. The bank received the favorable rating even while examiners identified a number of serious problems, including a large number of exceptions to the bank’s lending policy so it could make more loans, and a “combative culture” where management failed to downgrade non-performing loans, according to an FDIC report. [...] The FDIC hasn’t taken any public action against former bank officers and directors, though it still has time to do so.”

¹⁴The Lobbying Disclosure Act (LDA) of 1995 defines a *lobbying contact* as “any oral or written communication (including an electronic communication) to a covered executive branch official or a covered legislative branch official that is made on behalf of a client with regard to (i) the formulation, modification, or adoption of Federal legislation (including legislative proposals); (ii) the formulation, modification, or adoption of a Federal rule, regulation, Executive order, or any other program, policy, or position of the United States Government; (iii) the administration or execution of a Federal program or policy (including the negotiation, award, or administration of a Federal contract, grant, loan, permit, or license); or (iv) the nomination or confirmation of a person for a position subject to confirmation by the Senate.”

¹⁵The LDA defines a *lobbyist* as “any individual who is employed or retained by a client for financial or other compensation for services that include more than one lobbying contact, other than an individual whose lobbying activities constitute less than 20 percent of the time engaged in the services provided by such individual to that client over a six month period.”

¹⁶Recently, an increasing number of papers have made use of these registration- and transaction-related data on lobbying (see, e.g., Blanes i Vidal, Draca, and Fons-Rosen, 2012; Bertrand, Bombardini, and

For the purpose of influencing the Congress and federal agencies, special interest groups also employ a variety of other methods, including campaign contributions, media campaigns, endorsements, and grassroots campaigns. Lobbying is, however, particularly apt to the study of interest groups’ political influence. Indeed, lobbying represents by far the most important channel of political influence, especially for the banking industry. In 2012, the financial sector spent \$488 million on lobbying, over six times the \$81 million that they spent on Political Action Committees (PACs) contributions during the congressional cycle 2011-2012 (see Table 1). Historically, no other sector has spent as much money on lobbying and campaign contributions as the financial sector. Table 1 depicts that lobbying expenditures made by the financial sector in 2012 represent about 15 percent of overall lobbying expenditures. Figure 1 (top) shows that insurance companies, securities and investment firms, real estate interests, and banks constitute the bulk of that money. Figure 1 (bottom) exhibits that commercial and savings banks have intensified their lobbying expenditures over the 2000s.

[Insert Table 1 and Figure 1 about here]

The vast majority of lobbying expenditures reflect a clear economic motive, with a clear identification of the agency lobbied.¹⁷ However, upfront costs and returns to experience represent barriers to entry to beginning to lobby. For instance, these upfront costs are the costs of searching for and hiring the right lobbyists and of educating them about the details of the bank’s objectives; it also includes the time and resources devoted at developing a lobbying agenda and exploring how best to attempt to affect the political process. As stressed by the political science literature, lobbying experience also acts as a barrier to entry because experience is necessary to establish continuing relationship with regulators and politicians; banks also become more effective at lobbying over time, as they learn more about the (complex) lobbying process and the most effective ways to reach their objectives. These barriers to entry induce persistence in lobbying and also account for the stylized fact that few and relatively big banks engage in lobbying (see Bombardini, 2008; and Kerr, Lincoln, and Mishra, 2014, for a detailed discussion).

Another important aspect of the lobbying industry is the so-called “revolving door”, the career transitions from public services into the lobbying industry. Blanes i Vidal, Draca, and Fons-Rosen (2012) stress the prevalence of former political employees across the lobbying industry. From their sample covering the years 1998-2008, the authors report that in total former political employees represent over 60 percent of all lobbyists—i.e., lobbyists who work for lobbying firms and “self-filing” organizations that conduct in-house

Trebbi, 2014; and de Figueiredo and Richter, 2014, for a review).

¹⁷This contrasts with campaign contributions that are dependent on congressional cycles and may contain ideological and partisan motives, affecting in turn measurements (Ansolabehere, de Figueiredo, and Snyder, 2003).

lobbying activities. These former political employees include congressional staffers as well as former employees of federal agencies, executive bodies, or Presidential administrations. With their prior political experience, revolving door lobbyists have a network of colleagues and friends that they can exploit on behalf of their clients.

2.3 Theoretical Framework and Testable Hypotheses

Banks may engage in lobbying (if they can afford the fixed costs) to benefit from preferential treatment in the enforcement process and, thereby, shield from the costs associated with corrective actions. Formal enforcement actions are indeed costly for banks because they constrain banks' incentives to undertake activities potentially posing safety and soundness concerns. First, formal enforcement actions impose direct costs on the bank's management (e.g., partial loss of managerial control, increased scrutiny by examiners, loss of reputation) that also limit risk-taking behaviors. Second, formal enforcement actions are enforceable in court, and non-compliance is followed by serious penalties. Third, enforcement actions reveal new information about the bank's financial condition that is private to the regulators. The informativeness of enforcement action announcements induces negative valuation effects, as documented by Slovin, Suskha, and Polonchek (1999) and Jordan, Peek, and Rosengren (2000).

The supervisory process grants broad discretion to regulators in assessing the seriousness of a bank's problems, and in determining whether a corrective action should be taken. As a result, lobbying banks may interfere in the process to obtain preferential treatment. The theory of regulatory capture (Stigler, 1971; Peltzman, 1976) views favorable supervisory treatment as a response by regulators to the rent-seeking pressures and political influence of banks. From this perspective, captured regulators provide an implicit guarantee to the risk-taking activities of banks. In other words, the motive for lobbying involves moral hazard elements, whereby banks take up risky strategies (Kostovetsky, 2015). Such risky strategies are in turn likely to engender distortions in the allocation of resources, translating into poor subsequent financial performance (see Duchin and Sosyura, 2012; and Igan, Mishra, and Tressel, 2012, for consistent empirical evidence).

Under this view, supervision is consistently directed away from the public interest and toward the interest of banks by their own lobbying efforts. Figure 2 shows the interplay, adapted to this context, of legislators/government, regulators, and the banking industry (see also Mitnick, 1980; and Laffont and Tirole, 1993). In an ideal world, legislators design rules in such way that individual actions taken by banks enhance economic welfare. Because in reality market failures and externalities are prevalent, regulators have the duty of monitoring and examining banks and, where applicable, enforcing corrective

actions. The interplay of the players involved in Panel A of Figure 2 should support the public interest. However, regulatory capture arises when regulators *collude* with the bank’s managers, rather than pursuing the interests of depositors and taxpayers by recognizing problems and acting on it (i.e., the arrows directly linking the banking industry and regulators in Panel B of Figure 2). Collusion here is not the outcome of corruption or illegal practices but is the response to incentives driving the actions of regulators and banks. As discussed in the previous section, lobbying is one of the most important mechanism that promotes capture, inducing large and direct influence on regulatory agencies (OCC, FDIC, Fed) and, thereby, on the supervisory process.¹⁸ Banks spend time and resources to search for and hire the right lobbyists to get what they want (Blanes i Vidal, Draca, and Fons-Rosen, 2012; Bertrand, Bombardini, and Trebbi, 2014). Hired lobbyists devote in turn their time, skills, and network to reach out regulators and influence them to serve their client’s interests (i.e., getting preferential treatment when things get bad).

Under another view of preferential treatment, which resonates with the informational lobbying literature (Grossman and Helpman, 2001), banks lobby to credibly signal information to regulators on their true financial condition and performance prospects. This is especially important for lobbying banks that are specialized in segments and areas associated with special lending opportunities private to the bank, or when regulators face higher uncertainty about the bank’s local economic environment (Wilson and Veuger, 2016). In this way, regulators gather superior information throughout the course of their relationship with lobbying banks, thereby reducing information asymmetry that could have led to potentially mistaken enforcement decisions. This view serves the public interest as presented in Panel A of Figure 2. Indeed, lobbying banks, by maintaining good and continuing relationships with regulators, may prevent costly formal enforcement actions that would restrict long-term value maximization.¹⁹

Both views imply that *banks active in lobbying are associated with lower probability of receiving a formal enforcement action*. These views have different implications to be tested in terms of risk taking and performance.²⁰ On the one hand, as the theory of

¹⁸Alternatively, banks could affect indirectly enforcement outcomes by lobbying for favorable rules (regulations) regarding enforcement. In the theoretical framework shown in Figure 2, this corresponds to the arrows going from the banking industry to regulators by the legislature/government. The lobbyists’ influence on financial regulations has been the subject of a large media coverage; see, for example, Stephen Labaton, “Ailing, Banks Still Field Strong Lobby at Capitol,” *New York Times*, June 4, 2009; Jed Horowitz, “Banks Urge Congress to Extend Crisis-Era Deposit Insurance,” Reuters, July 30, 2012; Ben Protess, “Behind the Scenes, Some Lawmakers Lobby to Change the Volcker Rule,” *New York Times*, September 20, 2012.

¹⁹A different view of informational lobbying—and equivalent from an empirical standpoint—posits that banks lobby to obtain political intelligence to better adapt to changing regulatory environments. More directly, banks can also hire lobbyists to acquire private information about ongoing or impending regulatory agencies’ actions (see Gao and Huang, 2016).

²⁰Bertrand, Bombardini, and Trebbi (2014) analyze the role of lobbyists in the U.S. political system

regulatory capture posits that lobbying banks engage in specialized rent seeking for preferential treatment, the motive for lobbying involves moral hazard elements. I thus expect to observe *a positive association between bank lobbying and risk taking* and *a negative association between bank lobbying and subsequent performance*. On the other hand, the information-revealing theory posits that banks lobby to inform the regulators about their financial condition and future performance. Hence, I conjecture *a positive association between banks' lobbying activities and their performance*. Under this view, the implication in terms of risk taking is less clear cut. It is likely to observe that lobbying banks take on relatively more risk because they are better at accounting for the risks properly and, thus, should end up with higher performance. At the same time, if these lobbying banks are genuinely better and expect higher performance prospects as compared to other banks, they should be relatively more pro-active at slowing down or adapting their risky strategies when things go wrong. Consequently, I conjecture that *lobbying banks can potentially lead to risk differentials relative to non-lobbying banks*.

3 Data and Descriptive Statistics

3.1 Bank Lobbying

I use lobbying disclosure reports to identify banks that are engaged in lobbying in a given year. The LDA requires lobbyists to register and report information on their activities to the Senate Office of Public Records (SOPR). I use the version of the data compiled by the Center for Responsive Politics (CRP), a non-profit organization based in Washington, DC for the promotion of political transparency.²¹ Specifically, the lobbying variables used in the empirical analysis (see Appendix A for definitions) are constructed with the following information: the name of the registrant (i.e., the lobbying firm) and the name of the client (in case of a “self-filing” organization, the bank appears as registrant and client); the annual amount the client pays, which is calculated by the CRP by summing the information in semi-annual reports (or quarterly reports after 2007); the revolving door profile of lobbyists hired by the client; and the name of agencies lobbied. I construct several variables capturing different dimensions of lobbying. As argued earlier, given the high barriers to entry, the extensive margin of lobbying is likely to be crucial in my context. Accordingly, the main analysis relies on two indicators capturing barriers to entry to beginning to lobby. One is a dummy variable indicating whether the bank has engaged in lobbying activities in a given year and thus captures the bank’s lobbying

and present empirical tests designed at assessing the relative role of these two views. They find that maintaining connections to regulators and legislators to influence/manipulate them is central to what lobbyists do.

²¹Details on how CRP has compiled the SOPR information are displayed on their website: www.opensecrets.org.

status. The second variable is defined as the natural logarithm of the number of years since the bank started lobbying (dating back to 1998) and captures the bank’s returns to lobbying experience.

I merge data obtained from the CRP with the SNL Financial database (i.e., the database from which I retrieved enforcement, financial, and demographic data) manually by name to extract information on banks’ lobbying activities. The name-matching procedure used (i.e., an algorithm that finds common words) allows me to generate a list of potential matches between the names in the CRP lobbying data and those in the SNL Financial data. I then meticulously check one by one whether the pairs of name strings are actual matches via eyeballing, web searches, and additional information provided in disclosure reports.²²

In line with prior studies, I consider all lobbying activities at the parent financial institution level rather than the individual bank (subsidiary) level. Individual banks greatly benefit from the lobbying activity of their parent without necessary lobbying on their own. Parents may also lobby on behalf of their subsidiaries. Therefore, for each bank, I assign lobbying information of the parent financial institution. In cases where subsidiaries lobby (and thus file disclosure reports), I attribute its lobbying information to the parent financial institution. This means that the lobbying information for a specific bank may not reflect its original filing with the SOPR, but rather the combined activities of all entities of its group.²³

I identify 239 banks that are active in lobbying in any of the years from 2008 to 2012; this corresponds to 668 lobbying bank-year observations. Table 2 reports the time distribution of lobbying banks. The lobbying sample exhibits similar regularities than what is presented in section 2.2 for the entire financial sector. The proportion of banks active in lobbying is fairly stable during the sample period. The average amount spent intensified (somewhat) from \$1.281 million in 2008 to \$1.576 million in 2012. The sum of lobbying expenditures made by all lobbying banks in my sample corresponds to 8.2 percent of their aggregate total assets. While the number of lobbying banks is relatively small compared to non-lobbying banks (about 2 percent of bank-year observations), it is consistent with the stylized fact—reported in Kerr, Lincoln, and Mishra (2014), among other studies—that relatively few banks lobby because of the high barriers to entry to

²²This information available on CRP website is not user-friendly (one has to click on each bank to obtain details). Also, I often go over the individual disclosure reports (in pdf format on both SOPR and CRP websites) to cross-check the information.

²³I do not consider expenditures made by industry associations lobbying on behalf of their members. However, if I had to assign a share of the associations’ lobbying expenses to each member bank, this would not make a big difference as the amount would appear relatively small compared to amount spent on their own. Moreover, I am unable to include those lobbying expenditures since associations normally do not disclose membership information. This limitation of the data implies that I underestimate some bank’s actual lobbying activities.

engaging in the process. Banks’ lobbying status is accordingly highly persistent over time. The correlations between my lobbying dummy variable and its respective lagged value is 85.2 percent.²⁴ Moreover, lobbying banks in my sample: have on average about 7 years of experience in lobbying; direct their lobbying efforts towards an agency responsible for supervising commercial and savings banks (i.e., FDIC, OCC, Fed) in 31.2 percent of cases; and employ revolving door lobbyists in the vast majority of cases (84.2 percent).

[Insert Table 2 about here]

3.2 Regulatory Enforcement Actions

I obtain information about the timing and type of regulatory enforcement actions from SNL Financial. I only focus on formal actions, labeled hereafter as “severe”, issued against troubled institutions on the basis of “safety-and-soundness”. Severe actions include formal written agreements, cease and desist orders, prompt corrective action directives, and deposit insurance threats. This grouping reflects supervisory practices in the United States. Therefore, I employ a dummy variable equal to one if a severe enforcement action is issued by a federal agency (OCC, FDIC, or Fed) against a given bank in the year the action become effective, and zero otherwise (see Appendix A for definitions).²⁵ Less severe actions are not used because they are usually issued against individuals affiliated with an institution and thus they are not issued because the financial condition of the institution has been deteriorating. More generally, less severe actions against institution-affiliated individuals do not have a direct impact on bank activities (Delis, Staikouras, and Tsoumas, 2016). I also exclude enforcement actions that are issued separately by state banking regulators, which are not collected by SNL Financial.

Descriptive statistics for my enforcement sample appear in Table 3. In total, I record 1,677 severe enforcement actions and 6,171 less severe actions. The largest number of severe actions consists of cease and desist orders, accounting for 65 percent (1,091) of total severe actions. Formal written agreements account for 486 observations, while 97 prompt corrective action directives are identified. Deposit insurance threats make up the remainder, but are observed very marginally during my sample period (3 observations). Figure 3 shows the magnitude with which the enforcement activity intensified in the crisis period, with a dramatic surge in the number of (severe and less severe) enforcement

²⁴In their sample of listed firms over 1998-2006, Kerr, Lincoln, and Mishra (2014) report a 92 percent probability that a firm will lobby in a given year conditional on lobbying in the prior year.

²⁵In unreported robustness tests, I employ separately dummy variables for each severe action. In addition, I consider only the first enforcement action issued, not the ones that follow, if any. These robustness tests (available upon request) do not change the results presented in the next section.

actions issued after the year 2007.

[Insert Table 3 and Figure 3 about here]

3.3 Risk Taking

I use several on- and off-balance sheet variables measuring various dimensions of bank risk taking—namely, default, volatility, liquidity, and credit risk (see Appendix A for details about variable definitions). My primary measure is the Z-score, which is a frequently used measure of banks’ distance to default aggregating the effects of leverage and asset composition (Laeven and Levine, 2009; Duchin and Sosyura, 2014). The Z-score is computed as the sum of ROA and the equity-to-asset ratio scaled by the standard deviation of asset returns (using a rolling three years window). Under the assumption of normally distributed bank profits, this score approximates the inverse of the probability of default, with lower values meaning higher chance of default (see Roy, 1952, for a first formalization of the relation). In other words, the Z-score indicates the number of standard deviations a bank’s return on assets has to drop below its expected value before equity is depleted and the bank is insolvent. I complement the Z-score with ROA volatility, an estimate of the standard deviation of ROA computed over a three-year rolling time window (Cebenoyan and Strahan, 2004; Delis, Staikouras, and Tsoumas, 2016).

The last financial crisis showed that the interplay of growth and risk in bank lending can go wrong. I accordingly consider banks’ expansion motives during the run-up to the financial crisis and the emergence of default problems in the aftermath of it. First, large unused loan commitments expose banks to sudden liquidity demand from corporations. That risk materialized during the financial crisis, as firms in need of liquidity rushed to draw down funds from their committed credit lines and forced banks to build up liquidity buffers to meet such increased demand. Cornett, McNutt, Strahan, and Tehranian (2011) show that these drawdowns displaced banks’ lending capacity and limited their new credit origination. To measure banks’ (off-balance sheet) liquidity risk, I use the percentage change in the amount of bank i ’s unused loan commitments from the year $t - 1$ to year t . Second, rapid expansion in lending, quite closely associated with an easing of lending standards, may have adverse effects on bank risk (Foos, Norden, and Weber, 2010). I thus employ the percentage change in the amount of bank i ’s total loans from the year $t - 1$ to year t ; the term “total loans” aggregates consumer loans, real estate loans, and business loans. Because the adverse effects of rapid expansion in lending become apparent with the ex post emergence (i.e., during downturns) of default problems, I also use the share of nonperforming loans to total loans (Cebenoyan and Strahan, 2004). Nonperforming loans include loans that are 90-plus days delinquent and

loans in nonaccrual status. Like loan growth, this latter measure is a proxy for credit risk, as it reflects the potential adverse exposure to earnings and asset market values owing to deteriorating loan quality. Since a portion of nonperforming loans will result in losses for the bank, a high value for this ratio is associated with higher credit risk. I further make use of the share of nonaccrual loans to total loans as an alternative credit risk measure.

3.4 Financial, Demographic, and Regional Economic Factors

To control for banks' financial and management conditions, I follow the CAMELS rating system employed by U.S. regulatory agencies in their decision to initiate actions against institutions. The CAMELS rating derives its name from the six components that are evaluated: Capital adequacy, Asset quality, Management quality, Earnings, Liquidity, and Sensitivity to market risk. Each of the six components is rated by regulators. Because an announcement by a regulator that a bank has a high CAMELS rating (meaning a high probability of failure) could be extremely detrimental to the institution, individual banks' CAMELS ratings are highly classified (Peek, Rosengren, and Tootell, 1999). I thus need to introduce proxy variables for each of the six components. Similar to Duchin and Sosyura (2012, 2014), my choice of proxy variables is guided by financial ratios and management information that evaluate banks on similar components and available in Call Reports (obtained from SNL Financial). Appendix A offers detailed descriptions of each CAMELS rating proxy variable, while Table 4 presents descriptive statistics.

In addition to CAMELS rating proxy variables, I control for the following set of financial and demographic factors: deposit-to-asset ratio (reliance on deposits), debt-to-equity ratio (leverage), total core deposits (size of banks' stable source of funds), total assets (bank size), and age. Regional economic conditions are controlled for by the real per capita personal income growth at the county level (sourced from the U.S. Bureau of Economic Analysis).

[Insert Table 4 about here]

3.5 Additional Descriptive Statistics

The full sample consists of 7,698 banks and covers the time period from 2008 through 2012 (34,952 bank-year observations).²⁶ The types of banks included are the ones supervised by the OCC, the FDIC, or the Fed; that is, mainly commercial banks, but savings banks and bank holding companies (not consolidated data) are also included.

²⁶I have removed observations that correspond to outlier banks.

In Table 4 (Panel A), I present descriptive statistics on the main variables for the full sample. These statistics provide sample moments that will be useful for interpreting the magnitude of my regression coefficients.

Table 4 (Panel B) presents a two-by-two matrix (banks subject/not subject to an action and banks that lobby/do not lobby) showing some bank characteristics for each of the four cells. Compared to banks not subject to an action, unsurprisingly those whose regulator issues an action against are significantly riskier (low Z-score) and less healthy in terms of capital adequacy and earnings. There is no difference between banks receiving/not receiving an action in terms of size. These patterns are in line with Delis, Staikouras, and Tsoumas (2016). The distinction according to the lobbying status of banks provides interesting insights: lobbying banks subject to an enforcement action have again lower Tier 1 risk-based capital ratio, earnings, and Z-score and are bigger relative to lobbying banks not subject to an action. Comparing non-lobbying banks subject to an action with lobbying banks also subject to an action reveals that lobbying banks are much bigger and record relatively weaker performance, but are less risky. As a very preliminary evidence suggesting that lobbying activities are associated with lax enforcement outcome, one can observe that very few lobbying banks (22) get imposed an enforcement action in 2008-12. I now turn to examine this relationship in the multivariate settings to follow.

4 Empirical Results

4.1 Probability of a Severe Enforcement Action: Main Results

To study the relationship between bank lobbying and the probability of getting a severe enforcement action, I estimate the following probit model:

$$\text{Prob}(Y_{it}|\mathbf{X}_{it}) = F(\alpha + \mathbf{X}_{it}\boldsymbol{\beta}), \quad (1)$$

where $F(\cdot)$ is assumed to be the standard normal distribution.²⁷ Y_{it} is equal to one if the regulatory agency issues a severe enforcement action on bank i at time t , and is equal to zero otherwise. α is a constant term. \mathbf{X}_{it} contains a variety of factors, including regulator, time and state dummies, time-varying control variables, and one of the two main indicators of lobbying (Lobbying and Lobbying experience). In all specifications, the set of time-varying control variables includes the CAMELS rating proxies (Capital adequacy, Asset quality, Management quality, Earnings, Liquidity, Sensitivity to market risk) as well as Deposit-to-asset ratio, Leverage, Total core deposits, Size, Age, and

²⁷The estimation results are qualitatively similar if a logit model is used.

Personal income growth. It is evident from the descriptive statistics that there are few enforcement action events compared to zeros (“nonevents”); the event of an action occurs in about 5 percent of all bank years (see Table 4). Statistical procedures, such as logit or probit regressions underestimate the probability of rare events. To verify the robustness of my results in respect to this issue, I follow King and Zeng’s (2001) recommendations and correct these downward biases by analyzing the data using rare events logit model. My results are stronger following their recommendations, and are unreported for brevity. In tables, I report probit models to be conservative. All standard errors are clustered by bank.

It is also worth emphasizing that I would ideally control for the unobservable bank specific effect by estimating the probit model (1) including bank fixed effects. However, the estimation of the bank fixed effects coefficients in my nonlinear panel data setting introduces an incidental parameters problem discussed by Neyman and Scott (1948) and reviewed by Lancaster (2000). This problem of finding consistent estimators in nonlinear models occurs because the number of fixed effects grows without bound, but the amount of information available for their estimation is limited, especially in settings with short time span and many fixed effects. Both the fixed effects and coefficients on other variables (i.e., β) become biased in such setting. For nonlinear panel data models, it is not possible to get rid of the fixed effects by taking differences or performing within transformation (see Hsiao, 2003). As shown later, my results are however robust to the use of a linear probability model with bank fixed effects.

[Insert Table 5 about here]

Models (1) and (2) of Table 5 (Panel A) report the base regression results for the sample period of interest: 2008-12. The results of the regression analysis are consistent with my main prediction developed in section 2.3. The two lobbying indicators are negatively associated with the likelihood of getting a severe enforcement action. The economic magnitudes of lobbying are meaningful. To facilitate the estimation of magnitudes, Table 5 reports average marginal effects. Based on Model (1), I find that banks currently active in lobbying are 2.1 percentage points less likely to receive a severe enforcement action. Given the unconditional probability of a severe enforcement action of 4.7 percent, the effect is economically large. Indeed, lobbying reduces the probability of a severe action by 44.7 percent. As for lobbying experience in Model (2), I find that one additional year of experience in lobbying decreases the probability severe enforcement action by 2.5 percent. In Models (3) and (4) of Panel A, I expand the sample period to verify the generalization of my results beyond the 2008-12 period. I add the years 1998 to 2007, though this period is characterized by a much less intensive enforcement activity. Over the 1998-2012 period, the effect is slightly less significant (statistically and economically).

For example, from Model (3), lobbying reduces the probability of a severe action by 35.0 percent (given the unconditional probability of a severe action of 2.0 in 1998-2012).

Next, in Panel B, I investigate whether the results differ across regulatory agencies. Models (1) and (2) restrict the sample to banks for which the primary regulator is the OCC. Lobbying tends to make an action much less likely when lobbying banks are supervised by the OCC. From Model (1), an OCC-supervised bank active in lobbying sees its probability of getting a severe enforcement action reduced by 80.3 percent relative to its non-lobbying peers. A similar conclusion applies from Model (2). From Models (3) and (4), it can be seen that the impact of lobbying is relatively smaller for banks supervised by the FDIC (statistically and economically). For example, Model (3) economically shows that lobbying reduces the probability of a severe enforcement action imposed by the FDIC by 23.8 percent. Regarding banks supervised by the Fed, the impact of lobbying is again slightly weaker. Lobbying decreases the probability of an action by 21.4 percent (based on coefficient of Model (5)). In Model (6), statistical significance disappears when exploring the effect of lobbying experience. The findings in Panel B suggest that the base results hold regardless the regulator considered, while bank lobbying (at the federal level) appears to work more effectively when it concerns national banks, that is, the ones supervised by the OCC.

The evidence from financial and demographic control variables indicates that banks are more likely to receive a severe enforcement action if they are younger and more leveraged. As expected, the likelihood of a severe enforcement action is higher if banks present worst financial and management conditions as reflected in higher rating for most of the CAMELS components. For example, based on Model (1), a one standard deviation drop in the Tier 1 risk-based capital ratio (Capital adequacy) corresponds to a 1.8 percentage points increase in the probability of receiving a severe enforcement action. Again according to Model (1), a one standard deviation drop in ROA (Earnings) is associated with a 0.9 percentage points increase in the likelihood of a severe enforcement action. The regional economic variable does not seem to play a significant role.

Overall, these results strongly characterize the issuance of a severe enforcement action as being partly driven by banks' lobbying force. This suggests that lobbying banks obtain favorable treatment by regulators. I now turn to further address endogeneity concerns about the lobbying indicators.

4.2 Addressing Endogeneity

As banks are heterogeneous along many different dimensions, most of which are difficult to observe and quantify, my results might be impaired if there is an omitted variables problem that causes inference to break down. As an example, the confidential (unob-

served) component of CAMELS ratings may be responsible of the results as it can affect both enforcement and lobbying decisions. Also, it can plausibly be argued that banks lobby because they expect to get a severe action given their financial or managerial problems, raising some doubts that the causality runs in the direction outlined (i.e., from lobbying to enforcement outcome) rather than the other way around. As these endogeneity concerns may weaken the conclusions drawn in the previous section, I rule this out by instrumenting the lobbying variables.

The ideal instruments should help to capture the variation in a bank’s lobbying status/experience that is exogenous to the issuance of regulatory enforcement actions. I employ two instruments defined in Appendix A. As a first instrument, I use the initial (in 1998) bank’s size relative to its peers at the state level, which proxies for initial market size. Bombardini (2008) shows theoretically and empirically that institutions are more likely to lobby if they are relatively large compared with market size.²⁸ This instrument is also unlikely to be correlated with enforcement decisions prevailing in the sample years as the initial market size is predetermined.

As a second instrument, I use the distance (in km) between the headquarter of the bank and Washington, DC. The idea underlying the instrument is that it captures a certain cost of lobbying. Because the “business” of lobbying at the federal level is intricately intertwined with life in Capitol Hill, I argue that the cost of lobbying is an increasing function of the distance to Washington, DC. Since proximity to Washington, DC is less costly for lobbyists in their regular interactions with politicians and regulators, I can arguably assume that this instrument affects a bank’s decision to hire (external or in-house) lobbyists. A number of papers consistently shows that geographical proximity to Washington, DC determines banks’ decision to lobby and the intensity with which they lobby (see Gibson and Padovani, 2012; Igan, Mishra, and Tressel, 2012; Gao and Huang, 2016). Hence, this instrument satisfies the relevance criterion. At the same time, it should also satisfy the exclusion restriction because the distance between the headquarter of a bank and Washington, DC does not affect the cost incurred by regulators in their examination process since they conduct, in any case, periodical on-site examinations (every 12-18 months) and their offices are not necessarily located in Washington, DC. In other words, the distance to Washington, DC is likely to affect enforcement decisions only through its effect on the bank’s lobbying status/experience, which brings in a plausible exogenous variation that helps me to identify the direction of causality. Furthermore, I combine to this bank-specific component of the cost of lobbying a time-varying component. The time-varying component of the cost of lobbying is captured by the rest of the world purchases of U.S. Treasury securities from the Flow of Funds

²⁸Empirical works by Gibson and Padovani (2012), Hill, Kelly, Lockhart, and Van Ness (2013), Kerr, Lincoln, and Mishra (2014) relatedly show that lobbying status is associated with size.

Accounts published by the Fed. The rationale for using this time-varying component is that when capital inflows are high, the cost of capital (and the return on capital) decreases and, thereby, the opportunity cost of lobbying decreases as well. I do not expect that foreign purchases of new issues of U.S. Treasury securities are a priori related to the determinants of the decision to issue an enforcement action. My second instrument is thus the product of both bank-specific and time-varying components.

As my empirical model is characterized by binary outcome and treatment variables, I adopt two common IV strategies to estimating causal effects in such a model (see, e.g., Angrist and Pischke, 2009: 197–205). The first strategy computes maximum-likelihood estimates (MLE) of a bivariate probit model, which assumes that the outcome and treatment variables are each determined by latent linear index models with jointly normal error terms. The second strategy I use disregards the binary structure of the outcome and treatment variables and presents two-stage least squares (2SLS) estimates of a linear model. Table 6 contains the estimation results from these two strategies relying on the instruments introduced above as the source of identification.

I first outline the bivariate probit model, in which the first stage of the latent index is linear in covariates and excluded instruments. Suppose that a bank’s decision to lobby can be written as:

$$L_{it} = 1[\mathbf{X}_{it}\boldsymbol{\beta}_1 + \gamma_1\mathbf{Z}_{it} + v_{it} > 0],$$

where \mathbf{X}_{it} and \mathbf{Z}_{it} respectively contain the covariates and the instrumental variables, and v_{it} is a random error term. The second stage is similar to equation (1); the outcome variable of interest, Y_{it} (Severe action), is determined by the latent index:

$$Y_{it} = 1[\mathbf{X}_{it}\boldsymbol{\beta}_2 + \boldsymbol{\delta}_2\mathbf{Z}_{it} + \epsilon_{it} > 0],$$

where ϵ_{it} is a second random error term. To allow for the possibility that the unmeasured random determinants of lobbying are correlated with unmeasured random determinants of the issuance of a severe action, I assume that ϵ_{it} and v_{it} are distributed as bivariate normal with mean zero, each has unit variance, and $\rho = \text{Corr}(\epsilon_{it}, v_{it})$. The system is identified by assuming (ϵ_{it}, v_{it}) is independent of \mathbf{Z}_{it} . Because both decisions I model are dichotomous, there are four possible states of the world ($Y_{it} = 0$ or 1 and $L_{it} = 0$ or 1). The likelihood function corresponding to these events is therefore a bivariate probit.

In column (1), Panel A, I present the MLE bivariate probit estimate for the dummy variable Lobbying using Initial market size and Distance to DC as instruments and the same right-hand side variables I use for equation (1). The MLE estimate of the marginal effect of my lobbying indicator is clearly in line with estimate from Table 5, though it gives a larger estimate: -0.048 versus -0.021. The MLE estimate of the correlation

coefficient ρ is positive and statistically insignificant.

The bivariate probit model is not only way to go. As advocated by Angrist and Pischke (2009), a viable, less complicated, alternative is 2SLS model one could estimate if all potentially endogenous variables were continuous. If I ignore the fact that the dependent variable is binary and estimate

$$Y_{it} = \alpha + \mathbf{X}_{it}\beta + \delta L_{it} + \epsilon_{it}$$

with IV, the estimate of δ is again negative and statistically significant at conventional levels. The 2SLS estimate, reported in column (2), Panel A, confirms again the one obtained in Table 5.

In the case of the continuous variable, Lobbying experience, I fit an IV probit model using MLE. Column (3) shows that the coefficient on Lobbying experience has a negative sign and is significant at conventional levels. The Wald test at the bottom of the table, testing whether the correlation coefficient ρ is equal to zero, reports an insignificant statistic. In column (4), the 2SLS estimate is in line with the MLE estimate.

Importantly, I report evidence on the validity of instruments in Panel B. If Initial market size and Distance to DC are valid, then (1) they must be determinants of the decision to lobby (relevance condition), but (2) they must not be determinants of the decision to issue a severe enforcement action, that is, they must be uncorrelated with ϵ_{it} (exclusion condition). From Panel B, one can note that both instruments enter significantly with the expect sign in the first-stage regression. The first-stage F -statistics, reported at the bottom of Panel B, are well above the critical value for a 2SLS estimation with two instruments, meaning that my instruments are strong and thus satisfy the relevance condition. Although it is easy to show that the instruments meet the first condition, the second condition is not testable directly. However, I test for overidentifying restrictions and p -values of the Hansen J -statistics are higher than 10 percent in both cases.

[Insert Table 6 about here]

4.3 Additional Robustness Checks

In this section I evaluate the robustness of the main results. In particular, I further address issues related to unspecified or unobservable variables correlated to the lobbying indicators. Tables 7 and 8 summarize these additional tests. First, I check whether my results are robust to the use of a linear probability model with bank fixed effects. Specifications in column (1) of Table 7, Panels A and B, yield similar results with coefficients on both lobbying indicators still negative and significant. In column (2) I

restrict the sample only to banks that lobby at least once during the sample period. Again, the results are consistent, though the variable Lobbying experience just fails to be statistically significant at the 10 percent level.

Second, I would like to check the robustness of my results to different choice of measures proxying the CAMELS components (when data availability allows me to do so). Next to the CAMELS components, I also consider alternative measures for Leverage and Total core deposits, and for Personal income growth. In particular, similarly to Bayazitova and Shivdasani (2012), I proxy for a bank’s exposure to regional economic shocks employing the annual growth rate of the state-coincident macro indicators from the Federal Reserve Bank of Philadelphia. These alternative measures are discussed in Appendix A. Column (3) reports the estimation results with the new set of control variables. The qualitative conclusions for both lobbying indicators remain unchanged, suggesting that my main results are consistent across different measures of financial, managerial, and regional economic conditions.

Third, I check whether my findings are not confined to a subset of particular banks. Specifically, I gauge the sensitivity of my results to the exclusion of banks with the best or worst financial condition. Then, I evaluate whether my results are not driven by banks with close ties with regulators, given their critical localization. In columns (4) and (5), I exclude the top (bottom) 25 percent of banks with the best (worst) financial condition, as proxied by capital adequacy. In column (6), I exclude banks headquartered in two centers of influence: New York City and Washington, DC. These subsample analyses do not affect the economic and statistical significance of my results.

Fourth, I consider the issue of banks’ systemic importance. My results can be driven by a subset of large banks, deemed too big to fail, which would receive unconditionally preferential treatment irrespective of their lobbying efforts (Freixas, 1999; Goodhart and Huang, 1999). To address this possibility, I exclude the largest banks in my sample. Column (7) reports the results of estimating the probit model of the issuance of a severe enforcement action after eliminating the top decile of banks in terms of asset size. In column (8) I also allow for various functional forms of the relation between size and systemic importance. In particular, I introduce in the model higher-order powers of Size—i.e., size squared and size cubed. All qualitative and quantitative conclusions hold.

[Insert Table 7 about here]

Fifth, I perform an additional test to evaluate the robustness of my results to controlling for non-random assignment. To do so, I construct matched subsamples of lobbying (treatment group) and non-lobbying banks (control group) to rule out that the results are driven by the observable composition of these two groups. For each of the treatment

and control groups, I compute a propensity score via probit model. I match banks based on all control variables I include in the base regression of Table 5. This test also allows to distilling the effect of lobbying from that of systemic importance, as asset size alone may not be sufficient to capture systemic importance. Table 8 summarizes the results from the various matching used—namely, nearest neighbor matching and kernel-based matching (see Heckman, Ichimura, and Todd, 1997, 1998, for greater details). One can see that lobbying banks consistently receive less severe enforcement actions. The size of the treatment effect is here greater than in Table 5. The estimates for the variable Lobbying range from -0.027 to -0.049, while statistical significance reaches at least the 5 percent level in all specifications.

[Insert Table 8 about here]

Together these results suggest that there is an economically non-negligible treatment difference in terms of issuance of enforcement actions between lobbying and non-lobbying banks. The next section aims at examining the various other dimensions through which bank lobbying operates.

4.4 Lobbying Expenditures, Revolving Door Lobbyists, and Direct Lobbying on Regulators

The upfront costs and returns to experience both act as barriers to entry to beginning to lobby and are what both lobbying indicators measure, respectively. In this section I explore whether the intensive margins of lobbying also matter for obtaining favorable treatment. First, I consider the total amount spent on lobbying activities since the intensity of these activities varies across lobbying banks. Banks spending more in lobbying may indeed expect to exert more influence. Second, I investigate whether revolving door lobbyists—that is, the ones serving or having served in public offices—are different from other lobbyists. Revolving door lobbyists may get facilitated access to and influence on regulators because they have been “socialized” in a public office environment. Third, I examine whether banks’ lobbying efforts directed towards their primary regulator are more effective at inducing supervisory decisions in their favor. To this end, I use the following variables constructed from the lobbying disclosure filings: Lobbying expenditures, Revolving door lobbyists, and Direct lobbying on regulators (see Appendix A for variable definitions).

I present the results on these variables of interest in Table 9. All the three variables enter significantly with the expected sign in Models (1) to (3), which report average marginal effects of probit models, just as I did in the main analysis. Models (4) to (6) restrict the sample to lobbying banks in order to distinguish between intensive and

extensive margins. Model (1) indicates that the dollar amount spent on lobbying in a given year by banks largely reduces the probability of an enforcement action. However, this is less so at the intensive margin of how much banks spend on lobbying once the decision has been made to participate in the lobbying process. Indeed, Model (4) shows that lobbying expenditures appear statistically insignificant when limiting the sample to lobbying banks. Then, I find that banks employing revolving door lobbyists are much less likely to be subject to an enforcement action (Model (2)). This result is also true at the intensive margin of whether banks intensify their lobbying force with revolving door lobbyists once the decision to lobby has been undertaken (Model (5)). Importantly, targeting the lobbying efforts towards its primary regulator (i.e., OCC, FDIC, or Fed) is much more effective at reducing the likelihood of having an enforcement action (see Models (3) and (6)).

Overall, the findings are consistent with the view that both intensive and extensive margins of lobbying are negatively related to the probability of a severe enforcement action. However, the somewhat weaker effect between the probability of getting an enforcement action and lobbying on the intensive margin relative to that on the extensive margin is in line with the existence of barriers to entry. If no such barriers existed, one might expect a significantly stronger relationship between the probability of an enforcement action and lobbying expenditures on the intensive margin. I now turn to examine the reasons why banks engage in lobbying for preferential treatment by regulators.

[Insert Table 9 about here]

4.5 Disentangling Informational Lobbying from Regulatory Capture

So far, I have shown that bank lobbying reduces the likelihood of a severe enforcement action. In this section I pursue my second goal of gaining a deeper insight into lobbying banks' risk-taking behavior and performance. As argued in section 2.3, one possibility, engendering moral hazard problems, is that the lobbying process acts as a shield against costly enforcement actions encouraging banks to take on more risk (regulatory capture view). Another possibility is that the bank lobbying process is to better inform regulators and to guide them in their supervisory decisions. Under the latter possibility, lobbying banks are more likely to be associated with higher performance (information-based view). Tables 10 and 11 present the results.

The first outcome I consider is the measure of default risk, namely the Z-score.²⁹ I complement my analysis with bank measures of volatility, liquidity, and credit risk. Each column of Table 10 reports the results of fixed-effects regression models of bank risk,

²⁹I take the natural logarithm of this score given its skewed distribution.

where the dependent variables include the Z-score, ROA volatility, Unused commitment growth, Loan growth, Nonperforming loans, and Nonaccrual loans, on the two lobbying indicators. Control variables are Capital adequacy, Asset quality, Management quality, Liquidity, Sensitivity to market risk, Deposit-to-asset ratio, Total core deposits, Size, Age, Personal income growth, year and bank fixed effects. Standard errors are clustered by bank. The evidence across the models indicates a statistically and economically significant increase in risk taking at lobbying banks.

[Insert Table 10 about here]

In column (1) I show that bank lobbying is associated with higher default risk, an effect that is significant for both lobbying indicators. Using the coefficient of column (1) of Panel A, banks that engage in lobbying show a decrease of 12 percent in their Z-score—recalling that a smaller estimated Z-score implies more default risk. The effect on bank lobbying experience is qualitatively similar. In column (2) I consistently find that lobbying banks increase their ROA volatility.

To further investigate the analysis of risk, I examine whether lobbying banks increased their exposure to unused commitments during the years preceding the financial crisis. It has been shown that unused loan commitments (held off the balance sheet) expose banks to liquidity risk, especially when takedown demand increased following the crisis (Cornett, McNutt, Strahan, and Tehranian, 2011). Column (3) reveals strong evidence that off-balance sheet liquidity risk shows up more prevalently at lobbying banks in the run-up to the crisis. Against an average unused commitment growth of 27.5 percent, lobbying banks increase unused commitment growth by 8.9 percentage points (Panel A).

Then, I turn to credit risk. In column (4) I show that banks deciding to lobby expand considerably their loan base during the period prior to the financial crisis. From Panel A, lobbying banks are associated with a 5.4 percentage points rise in loan growth; this is economically large given the average loan growth of 14.8 percent.³⁰ I further show in column (5) that the same lobbying banks experience an increase in nonperforming loans in the aftermath of the financial crisis. The results in column (6) mirror those found in column (5) for the nonaccrual loans ratio, and are very similar. This is consistent with Igan, Mishra, and Tressel (2012) whose empirical evidence supports the view that lobbying banks expanded more aggressively in the run-up to the financial crisis, but ended up with an increased problem of bad loans following it.³¹

³⁰I obtain qualitatively similar results (unreported) if I look at the breakdown of total loans (i.e., consumer loans, real estate loans, and business loans), with more pronounced effects for real estate loan growth.

³¹For robustness purposes, I repeat the analysis on bank risk for alternative model specifications and subsamples as in Table 7. Also, I account for endogeneity concerns using IV strategies. The results

Although these results on risk taking are in line with the theory of regulatory capture, they are not enough to establish it as the main explanation of my results. I examine in Table 11 the role of lobbying on bank performance. The estimates in Models (1) and (2) suggest that lobbying banks significantly underperform their non-lobbying counterparts. The economic magnitudes of lobbying on performance are economically meaningful. Banks show a decline in their ROA of 0.2 percentage points following their lobbying activities, which represents a decline of almost 50 percent of its mean value of 0.43 percent. In turn, banks improving their lobbying experience by one additional year see a decrease in their ROA of 1.9 percent.

In an attempt to further pin down the exogeneity of lobbying, I show graphically the dynamics of the performance of banks around their decision to lobby. Figure 4 plots the ROA in the years before and after lobbying. The figure shows that bank performance is relatively low after lobbying and, most importantly, that there is no discernible pattern before the lobbying date. This results is confirmed in a regression analysis (unreported) including dummy variables indicating four periods around the lobbying date: more than 3 years before, less than 3 years before, 0 to 3 years after, and more than 3 years after. I observe that only the dummy variables indicating years after lobbying have a negative and significant coefficient. Therefore, I observe no pre-lobbying trend, and the ROA decreases only after the lobbying decision takes place. These findings suggest that lobbying is done preemptively (unconditional on past performance).

The results thus far hold after controlling for banks' exposure to local economic conditions. Yet the underperformance of lobbying banks can still be due to bad luck or overoptimism rather than specialized rent seeking.³² In what follows, I further explore the performance of lobbying banks exposed to uncertainty shocks to allow again the identification of informational lobbying, if any. Since uncertainty is a factor that influences banks' economic outlook, then the value of informational lobbying should be greater when uncertainty is prevalent. If informational lobbying is a mechanism at work, I expect that lobbying banks perform relatively well when regulators face high uncertainty. In Models (3) to (6) I interact my lobbying indicators with a proxy for time-varying county-level uncertainty. In the spirit of the literature on time-varying uncertainty (e.g., Bloom, 2009), I proxy for economic uncertainty using the standard deviation of regional income growth, calculated at the county level for a rolling three years window. From

are summarized in Appendix Table B1. This table only reports the coefficients of variables of interest for brevity and presents the results for the six risk measures (columns) matched with the two lobbying indicators (rows). Consequently, 12 different specifications are reported for each panel and confirm the conclusions drawn.

³²For example, some lobbying banks may have been more active in the areas where housing problems turned out to be more severe and faced more losses. This does not mean that their lobbying activities did not reveal information, they may have honestly underestimated the risks and communicated the risks to the best of their knowledge to the regulators.

Model (3), one can see that the dummy variable Lobbying continues to have a direct and negative impact on performance (as measured by the ROA). In Model (4), the variable Lobbying experience has the right sign but turns out to be insignificant. The interaction between lobbying and the second moment shock is significantly negative across the models. Lobbying banks facing adverse uncertainty shocks thus persistently underperform their non-lobbying counterparts, which further mitigates the information-based view of lobbying. The second moment shock is, reassuringly, insignificant. Next, to make sure that these results do not reflect a temporary adverse situation experienced by lobbying banks but rather persist in the longer run, I examine lobbying banks' long-term performance (i.e., using the 3-years lead value of ROA). As shown in Models (5) and (6), lobbying has again a direct negative impact on long-term performance, which is amplified when further exposed to uncertainty (the interaction term is negative and significant in both models). Such persistence in underperformance at lobbying banks corroborates the regulatory capture view.

In summary, lobbying banks, which are less likely to be subject to severe enforcement action, tend to engage in additional risk taking. At the same time, lobbying banks underperform their non-lobbying peers. The collage of evidence appears rather consistent with the theory of regulatory capture à la Stigler (1971) and Peltzman (1976). Of course, I cannot completely rule out an explanation echoing the informational lobbying literature (Grossman and Helpman, 2001). However, the results on bank performance give little support to this possibility in the aggregate.

[Insert Table 11 and Figure 4 about here]

5 Conclusions

In the aftermath of the financial crisis, the political influence of the banking industry and, in particular, their lobbying efforts have been blamed by many observers and commentators for being responsible of failures and gaps in banking supervision. Because of the difficulty of measuring political influence, anecdotes mainly drive this general perception. This paper presents systematic bank-level evidence on the link between bank lobbying and the issuance of enforcement actions, a crucial aspect of banking micro-prudential supervision. Using a large sample of commercial and savings banks, I find that banks engaged in lobbying activities have lower probabilities of receiving an enforcement action—being either a formal written agreement, cease and desist order, prompt corrective action directive, or deposit insurance threat. All dimensions of lobbying studied point in the direction of a significant negative impact of lobbying on the issuance of a severe action. I also document that the effect identified is stronger for national

banks lobbying the OCC. The evidence on performance and the propensity of taking risk at lobbying banks sheds light on the reasons why banks lobby to gain preferential treatment. Broadly consistent with the Stigler-Peltzman view of regulation, my findings suggest (1) that the supervisory process is not immune to the political influence of banks and (2) that supervisory distortions induced by lobbying outweigh the welfare-enhancing role of the lobbying process in terms of information transmission. Understanding and quantifying further these distortions induced by bank lobbying remains a fruitful area of future research.

This paper makes inferences based on a sample composed of commercial and savings banks in the United States. It is natural to ask to what extent inferences would modify if one considers other segments of the banking industry. In particular, this paper excludes investment banking from its scope, while the problem studied here might be even more pressing for investment banks supervised by the Securities and Exchange Commission (e.g., insider trading, shadow banking). Tackling such issues assuredly constitutes a major part of the task of the political economy of banking literature.

From a policy perspective, my findings have implications for the redesign of banking regulation and supervision in the United States and in other part of the world, especially within the European Union. While my findings should not be interpreted as evidence for banning lobbying, they decisively point in the direction of a need for tighter rules governing lobbying activities. This implies that policymakers should advocate for greater transparency but also address the pervasive dominance of the banking industry and their lobbyists as a special interest group.

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A Definition of Variables

A.1 Bank Lobbying

Lobbying: dummy variable equal to one if bank i is active in lobbying during the year t , and zero otherwise. “Active” means that the bank has at least hired once a lobbying firm or filed a lobbying report.

Lobbying experience: the number of years since bank i is active in lobbying (dating back to 1998 maximum). For brevity, I use the label “Lobbying experience” in referring to the natural logarithm of Lobbying experience in the paper.

Lobbying expenditures: dollar amount spent by bank i on lobbying during the year t . For brevity, I use the label “Lobbying expenditures” in referring to the natural logarithm of Lobbying expenditures in the paper.

Revolving door lobbyists: dummy variable equal to one if bank i employs at least one revolving door lobbyist during the year t . A revolving door lobbyist is an individual who serves or has served in public offices and moves to being employed as lobbyist.

Direct lobbying on regulators: dummy variable equal to one if bank i employs at least

one lobbyist to directly lobby the OCC, the FDIC, or the Fed during the year t , and zero otherwise.

A.2 Regulatory Enforcement Actions

Severe action: dummy variable equal to one if formal written agreements, cease and desist orders, prompt corrective action directive, and/or deposit insurance threats are observed during the year t , and zero otherwise.

Less severe action: dummy variable equal to one if enforcement actions against personnel and individuals, formal memoranda of understanding, hearing notices, sanctions due to HMDA violation and/or other actions and fines are observed during the year t , and zero otherwise.

A.3 Risk Taking

Z-score: the sum of return on assets and the equity-to-asset ratio divided by the standard deviation of the return on assets, calculated over a three-year rolling time window. Formally, the Z-score is equal to $(ROA + \frac{E}{A})/\sigma(ROA)$, where ROA is the bank's return on assets (i.e., $\frac{\pi}{A}$), $\frac{E}{A}$ denotes its equity-to-asset ratio, and $\sigma(\pi/A)$ is the standard deviation of ROA . I use a three-year rolling time window for the $\sigma(ROA)$ to allow for sufficient variation in the denominator of the Z-score. This approach avoids that Z-scores are exclusively driven by variation in the levels of capital (E) and profitability (π). In unreported sensitivity analyses, I use different time windows and the results are unchanged. The Z-score is an accounting-based measure of banks' distance to default. Default is defined as a state in which losses surmount equity ($E < -\pi$). The probability of default can therefore be expressed as $\text{Prob}(-ROA < \frac{E}{A})$. If profits are normally distributed, then the inverse of the probability of default equals $(ROA + \frac{E}{A})/\sigma(ROA)$. I follow the literature by defining the inverse of the probability of default as the Z-score; thus, a higher Z-score implies a lower probability of default. In other words, the Z-score measures the number of standard deviations below the mean by which returns have to fall to wipe out bank equity. Because the Z-score is highly skewed, I use the natural logarithm of $(1+Z\text{-score})$, which is normally distributed. For brevity, I use the label "Z-score" in referring to the natural logarithm of Z-score in the paper.

ROA volatility: the standard deviation of return on assets (ROA). For brevity, I use the label "ROA volatility" in referring to the natural logarithm of ROA in the paper.

Unused commitment growth: the percentage change in the amount of bank i 's unused loan commitments (held off the balance sheet) from the year $t - 1$ to year t .

Loan growth: the percentage change in the amount of bank i 's total loans from the year $t - 1$ to year t . The term "total loans" encompasses consumer loans, real estate loans, and C&I loans.

Nonperforming loans: loans 90 days or more past due but still accruing interest plus nonaccrual loans divided by total loans. For brevity, I use the label "Nonperforming loans" in referring to the natural logarithm of nonperforming loans to total loans in the paper.

Nonaccrual loans: nonaccrual loans divided by total loans. For brevity, I use the label "Nonaccrual loans" in referring to the natural logarithm of nonaccrual loans to total loans in the paper.

A.4 Financials and Demographics

Capital adequacy: Tier 1 capital divided by risk-weighted assets. Tier 1 risk-based capital ratio is the amount of bank i 's capital relative to the risk profile of its assets. Broadly speaking, this criterion evaluates the extent to which a bank can absorb potential losses. Tier 1 capital comprises the more liquid subset of bank i 's capital, whose largest components include common stock, paid-in-surplus, retained earnings, and noncumulative perpetual preferred stock. The denominator of the ratio is computed as follows: all assets are divided into risk classes (defined by regulators), where more risky assets are assigned higher weights than less risky assets, thus contributing more to the denominator of the ratio. The idea behind is that banks, whose asset composition is riskier, need a greater amount of capital to remain sufficiently capitalized.

Asset quality: the negative of loan and lease allowance scaled by total loans. This ratio measures the adequacy of the allowance created by the bank to absorb losses on nonperforming loans. For ease of interpretation, this ratio is included with a negative sign so that greater values reflect higher asset quality. In the robustness section, I also test an alternative measure: the negative of net losses divided by total loans and leases. This alternative measure evaluates the overall condition of a bank i 's portfolio. A higher proportion of net losses indicates lower asset quality.

Management quality: the negative of the uniformly weighted moving average of the number of enforcement actions against personnel and individuals using three lagged years and the current year. In the robustness section, I also use the negative of the number of enforcement actions against personnel and individuals during the year.

Earnings: return on assets (ROA), measured as the ratio of the annualized net income in the trailing quarter to average total assets. In the robustness section, I also use the ratio of net interest income to earning assets.

Liquidity: the ratio of cash to deposits.

Sensitivity to market risk: the ratio of the absolute difference (gap) between short-term assets and short-term liabilities to earnings assets. This ratio measures the sensitivity to interest rate risk. The primary focus of risk analysis by regulators is on interest rate risk. The gap between both short-term assets and liabilities approximates the net amount of assets or liabilities that need to be repriced within one year, affecting in turn earnings. A higher gap reflects a higher interest rate risk.

Deposit-to-asset ratio: the ratio of total deposits to total book assets.

Leverage: the debt to equity ratio. For robustness, I also use an alternative measure: the ratio of total equity to total book assets.

Total core deposits: the deposits made in bank i 's natural demographic market. This is a measure of the size of bank i 's stable source of funds for their lending base. For brevity, I use the label "Total core deposits" in referring to the natural logarithm of total core deposits in the paper.

Size: the natural logarithm of total assets. For brevity, I use the label "Size" in referring to the natural logarithm of total assets in the paper.

Age: age (in years) of the bank.

A.5 Regional Economics

Personal income growth: real per capita personal income growth computed at the county level. This is a measure a bank's exposure to regional economic shocks. For robustness, I also use a state macro index growth, which is computed as the annual growth rate in the state-coincident macro indicators from the Federal Reserve Bank of Philadelphia across the states where a bank is present. The coincident indicators capture the economic conditions in a state by aggregating four state-level variables into one statistic: (1) nonfarm employment; (2) average hours worked in manufacturing; (3) unemployment; and (4) wage and salary disbursements deflated by the consumer price index.

A.6 Instruments

Initial market size: the initial (in 1998) bank i 's total assets relative to its within-state peers j 's total assets.

Distance to DC: the interaction between the distance (in km) between the headquarter of the bank i and Washington, DC (bank-specific component) and the foreign purchases of U.S. Treasury securities (time-varying component).

B Additional Robustness Table

Table B1: Bank Lobbying and Risk Taking: Robustness

This table presents estimates from fixed-effects regression models explaining several indicators of risk taking. The dependent variable is the Z-score in column (1), ROA volatility in column (2), Loan growth in column (3), Unused commitment growth in column (4), Nonperforming loans in column (5), and Nonaccrual loans in column (6). Panel A excludes the top quartile of banks based on the variable Capital adequacy. Panel B excludes the bottom quartile of banks based on the variable Capital adequacy. Panel C excludes all banks headquartered in New York City and Washington, DC. Panel D excludes the top decile of banks based on the variable Size. Panel E includes higher-order powers of the variable Size (i.e., Size squared and Size cubed). Panel F presents estimates from 2SLS regressions, where the instruments are Initial market size and Distance to DC as in Table 6. All models are estimated for the sample period 2007-2012 and use the same set of control variables as in Table 10. This table only reports the coefficients of variables of interest for brevity and presents the results for the six risk-taking measures (columns) matched with the two lobbying indicators (rows). Consequently, 12 different specifications are reported per panel. All variables are defined in Appendix A. Robust standard errors clustered by bank are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable	Z-score	ROA volatility	Loan growth	Unused commit- ment growth	Nonperforming loans	Nonaccrual loans
Panel A: Exclude Top 25% Capital Adequacy						
Lobbying	-0.458*** (0.059)	0.386*** (0.058)	0.087*** (0.022)	0.123*** (0.039)	0.009*** (0.003)	0.003* (0.002)
Lobbying experience	-0.116* (0.065)	0.100*** (0.034)	0.046** (0.020)	0.031** (0.014)	0.014*** (0.005)	0.007** (0.003)
Panel B: Exclude Bottom 25% Capital Adequacy						
Lobbying	-0.158** (0.074)	0.172** (0.078)	0.042* (0.022)	0.042* (0.025)	0.009** (0.004)	0.007** (0.004)
Lobbying experience	-0.049* (0.026)	0.084* (0.044)	0.021* (0.012)	0.058** (0.028)	0.006* (0.003)	0.001 (0.001)
Panel C: Exclude New York City and Washington, DC						
Lobbying	-0.310*** (0.061)	0.290*** (0.063)	0.055** (0.023)	0.084* (0.044)	0.011*** (0.003)	0.006** (0.003)
Lobbying experience	-0.136*** (0.041)	0.163*** (0.041)	0.025* (0.014)	0.059*** (0.017)	0.011*** (0.004)	0.005* (0.003)
Panel D: Exclude Top 10% Size						
Lobbying	-0.217*** (0.080)	0.187** (0.082)	0.089*** (0.029)	0.134*** (0.049)	0.015*** (0.004)	0.008** (0.003)
Lobbying experience	-0.085** (0.035)	0.066** (0.034)	0.018* (0.011)	0.042* (0.028)	0.026*** (0.008)	0.018*** (0.005)
Panel E: Higher-Order Powers of Size						
Lobbying	-0.130** (0.062)	0.098* (0.050)	0.047* (0.025)	0.080* (0.045)	0.011*** (0.003)	0.007** (0.003)
Lobbying experience	-0.055* (0.030)	0.020 (0.021)	0.019* (0.011)	0.039* (0.023)	0.010** (0.004)	0.006* (0.003)
Panel F: 2SLS Regression						
Lobbying	-5.131*** (0.299)	5.0545*** (0.292)	1.871*** (0.138)	2.058*** (0.167)	1.123* (0.665)	1.132** (0.565)
Lobbying experience	-3.009*** (0.185)	2.991*** (0.811)	1.214*** (0.089)	1.331*** (0.108)	0.912* (0.504)	0.755* (0.397)

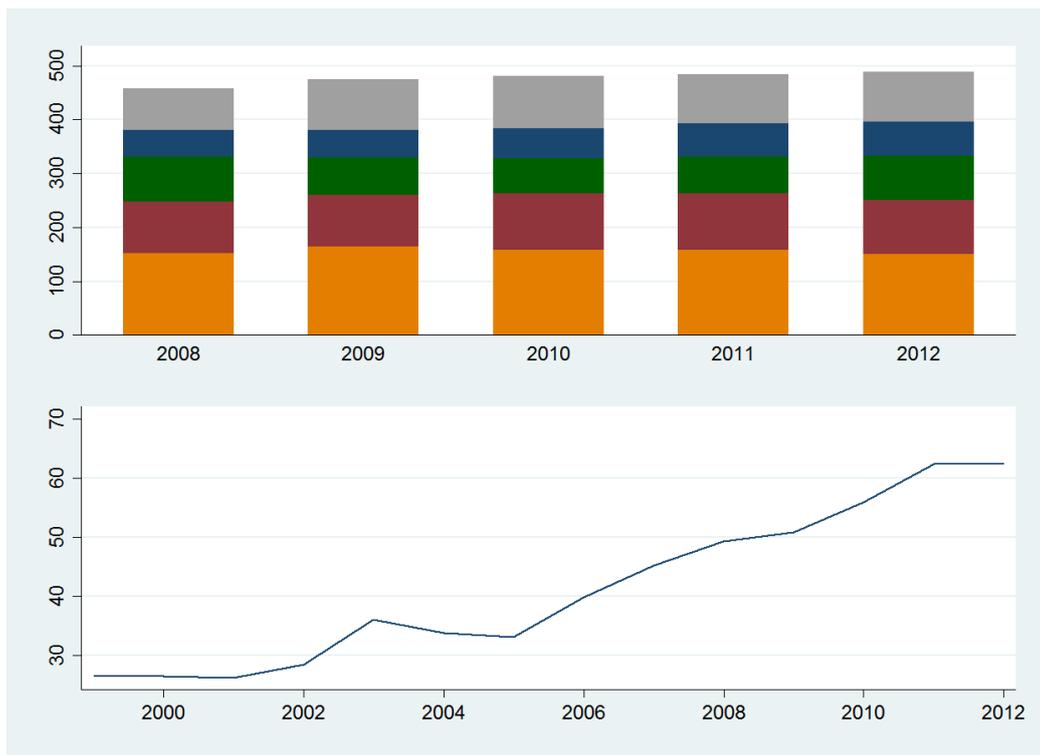


Figure 1: Financial Sector Distribution of Lobbying Expenditures

This figure presents the evolution of lobbying expenditures. The figure at the top shows the total lobbying expenditures (in \$100 million) by financial institutions in 2008-12. The financial sector is classified into: (1) Insurance companies (in orange); (2) securities and investment companies (in red); (3) real estate companies (in green); (4) commercial and savings banks (in blue); and (5) other types of financial firms (in gray). The figure at the bottom shows the total lobbying expenditures (in \$100 million) for commercial and savings banks over time. Source: CRP.

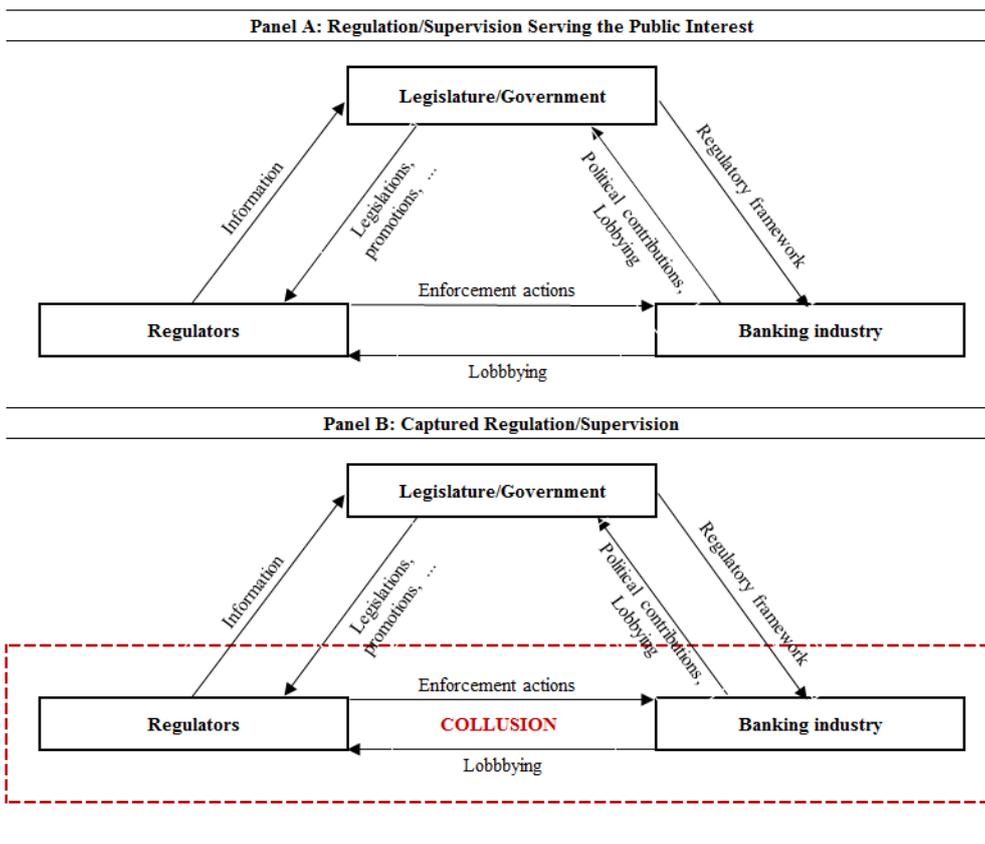


Figure 2: Theoretical Framework

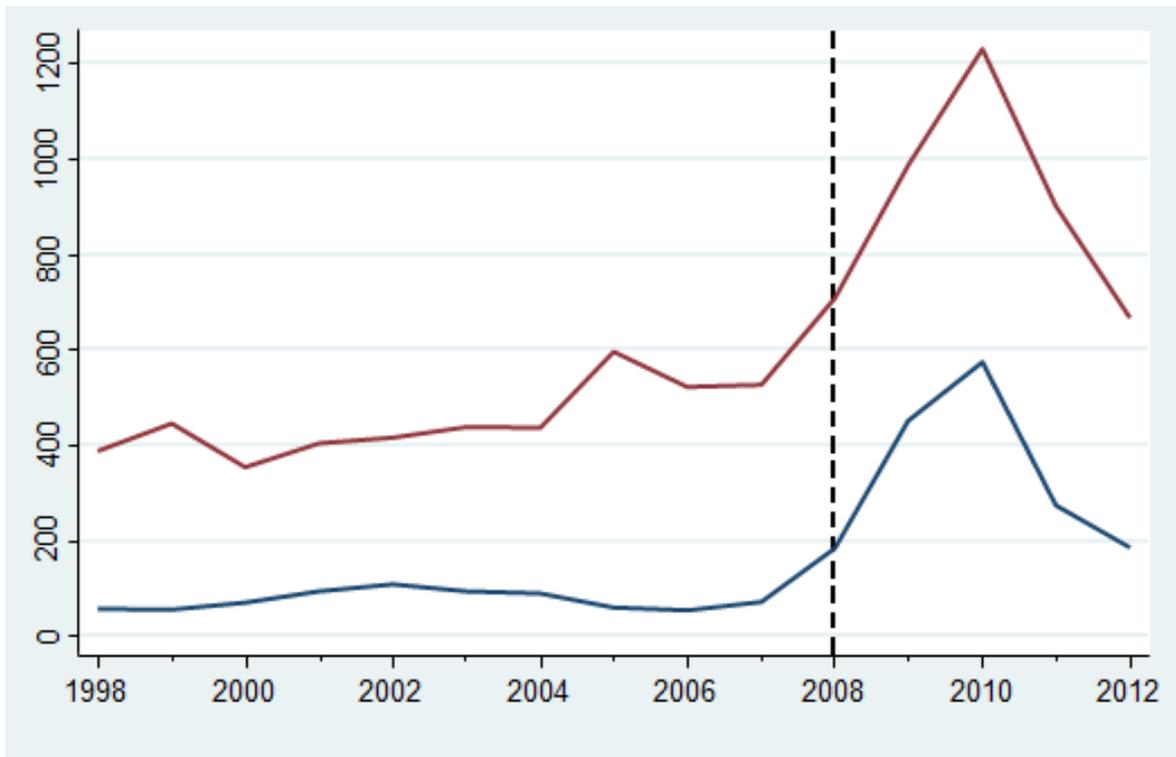


Figure 3: Enforcement Activity over Time

This figure presents the evolution of the number of severe formal actions (in blue) and less severe formal actions (in red) as defined in Appendix A.

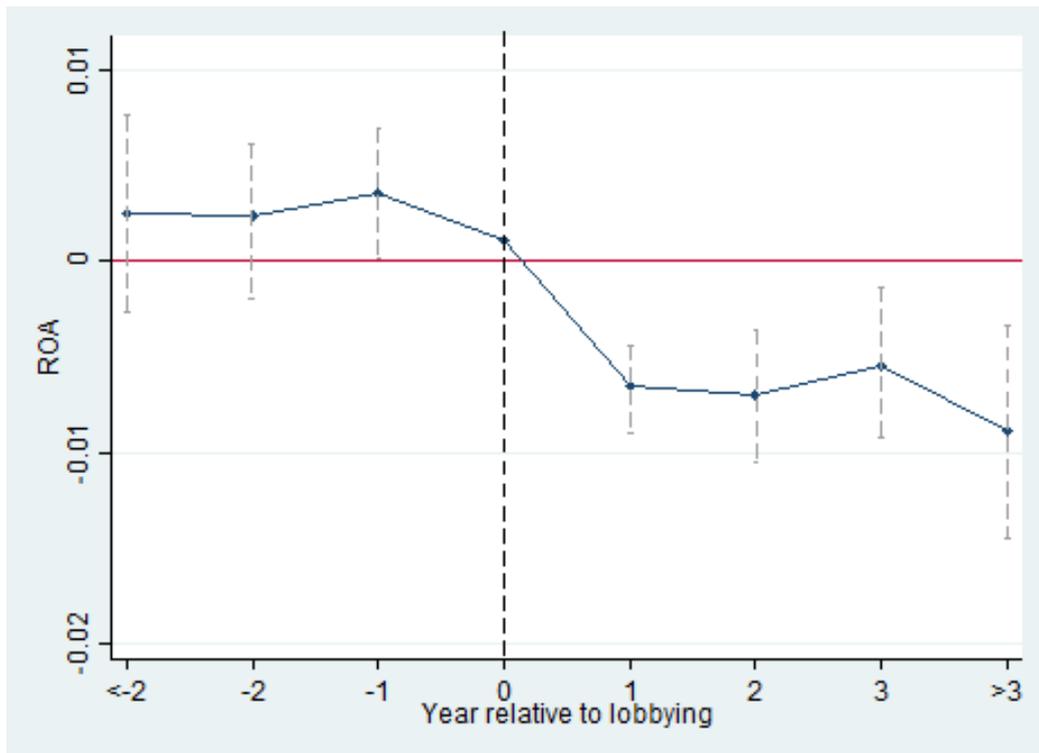


Figure 4: Effect of Lobbying on ROA: Dynamics

This figure presents the relative change in estimates of ROA around lobbying dates among banks, where lobbying is defined as a dummy variable equal to one the year at which a bank starts lobbying. The specification is the same as Model (1) of Table 11 except that the lobbying indicator is replaced by dummy variables $I(t)$ equal to one exactly t years after (or before if t is negative) the first year of lobbying for bank i . The point estimates of the dummy variables $I(t)$ and the 95% confidence intervals are plotted. Standard errors are clustered by bank.

Table 1: Political Activity: Overview

This table presents the dollar amount spent by all sectors and the financial sector only on: (i) PACs contributions by congressional cycle from 1999-00 to 2011-12, and (ii) lobbying expenditures by year from 1999 to 2012. Source: CRP.

Congressional Cycle	PACs Contributions			Year	Lobbying Expenditures		
	All Sectors	Financial Sector	% of Financial Sector		All Sectors	Financial Sector	% of Financial Sector
1999-00	268,298,209	41,810,780	15.58%	1999	1,450,000,000	214,340,103	14.78%
2001-02	349,807,481	47,280,397	13.52%	2000	1,570,000,000	231,317,978	14.73%
2003-04	450,273,887	57,784,743	12.83%	2001	1,640,000,000	236,783,830	14.44%
2005-06	516,234,890	68,480,524	13.27%	2002	1,830,000,000	273,028,017	14.92%
2007-08	578,799,823	73,302,779	12.66%	2003	2,060,000,000	323,433,257	15.70%
2009-10	597,175,036	73,287,832	12.27%	2004	2,200,000,000	339,096,721	15.41%
2010-12	612,142,230	80,741,923	13.19%	2005	2,440,000,000	364,840,264	14.95%
All years	3,372,731,556	442,688,978	13.13%	2006	2,630,000,000	379,807,885	14.44%
				2007	2,880,000,000	425,975,716	14.79%
				2008	3,300,000,000	457,747,114	13.87%
				2009	3,500,000,000	473,952,163	13.54%
				2010	3,550,000,000	480,017,686	13.52%
				2011	3,330,000,000	483,221,175	14.51%
				2012	3,310,000,000	488,436,400	14.76%
				All years	35,690,000,000	5,171,998,309	14.49%

Table 2: Descriptive Statistics for the Lobbying Sample

This table presents the lobbying expenses of banks by year from 2008 to 2012. The last row reports the number of banks, the number of lobbying banks, the proportion of lobbying banks, and the mean, median, and sum of lobbying expenses during the 2008-12 period. All variables are defined in Appendix A.

Year	Total Number of Banks	Number of Lobbying Banks	% of Lobbying Banks	Lobbying Expenditures		
				Mean	Median	Sum
2008	7,505	146	1.95%	1,281,340.000	189,000.000	187,075,640.000
2009	7,257	153	2.11%	1,194,271.000	130,000.000	182,723,463.000
2010	6,938	126	1.82%	1,826,455.000	310,000.000	230,133,330.000
2011	6,698	126	1.88%	1,614,438.000	710,000.000	203,419,188.000
2012	6,554	117	1.79%	1,575,818.000	680,000.000	184,370,706.000
All years	34,952	668	1.91%	1,498,464.400	403,800.000	1,000,974,219.200

Table 3: Descriptive Statistics for the Enforcement Sample

This table presents descriptive statistics for a sample restricted to banks that are subject to a regulatory enforcement action. Panel A reports the annual frequency of regulatory enforcement actions issued by banking regulators in United States in the 2008-12 interval; it reports the total number of regulatory enforcement actions (severe and less severe actions), the number of severe actions (i.e., formal written agreements, cease and desist orders, prompt corrective action directives, and deposit insurance threats), and the number of less severe actions. This latter category consists of actions against personnel and individuals, and other civil money fines. Panel B reports pairwise correlation coefficients between different types of enforcement variables. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Year	Any action	Severe actions	Less severe actions	Breakdown of Severe Actions			
				Formal written agreements	Cease and desist orders	Prompt corrective action directives	Deposit insurance threats
2008	895	186	709	85	99	2	0
2009	1,440	453	987	142	293	18	0
2010	1,804	575	1,229	170	370	34	1
2011	1,177	276	901	54	195	25	2
2012	855	187	668	35	134	18	0
All years	6,171	1,677	4,494	486	1,091	97	3

Panel B: Correlations Between Regulatory Enforcement Actions						
	(1)	(2)	(3)	(4)	(5)	(6)
(1) Severe actions	1.000					
(2) Less severe actions	0.742***	1.000				
(3) Formal written agreements	0.091***	0.075***	1.000			
(4) Cease and desist orders	0.101***	0.087***	0.852***	1.000		
(5) Prompt corrective action directives	0.078***	0.073***	0.394***	0.797***	1.000	
(6) Deposit insurance threats	0.025***	0.032***	-0.070***	0.267***	0.619***	1.000

Table 4: Descriptive Statistics for the Full Sample

This table presents descriptive statistics. Panel A presents descriptive statistics for the full sample, consisting of 7,698 commercial and savings banks over the period 2008-12. Panel B reports the number of banks subject (not subject) to a severe enforcement action according to their lobbying status. Panel B also reports according to the same breakdown the mean value of key variables: Capital adequacy, ROA, Z-score, Size. All variables are defined in Appendix A and, to ease interpretation, are reported in % or \$-value when appropriate.

Panel A: Descriptive Statistics						
Variable	Mean	25th Percentile	Median	75th Percentile	Standard Deviation	Number of Observations
Bank Lobbying						
Lobbying	0.019	0.000	0.000	0.000	0.137	34,952
Lobbying experience	0.046	0.000	0.000	0.000	0.303	34,952
Lobbying expenditures (\$)	28,259.390	0.000	0.000	0.000	451,950.100	34,952
Revolving door lobbyists	0.016	0.000	0.000	0.000	0.127	34,952
Direct lobbying on regulators	0.006	0.000	0.000	0.000	0.078	34,952
Regulatory Enforcement Actions						
Severe action	0.047	0.000	0.000	0.000	0.211	34,952
Less severe action	0.081	0.000	0.000	0.000	0.274	34,952
Risk Taking						
Z-score	3.683	2.904	3.800	4.583	1.369	34,084
ROA volatility	-5.866	-6.707	-5.954	-5.053	1.246	34,536
Unused commitment growth (%)	27.500	-0.064	12.400	37.800	73.900	78,932
Loan growth (%)	14.800	0.015	8.200	17.200	30.900	80,954
Nonperforming loans (%)	3.090	0.480	1.700	3.940	3.090	34,448
Nonaccrual loans (%)	2.355	0.330	1.250	2.940	3.611	34,448
Financials and Demographics						
Capital adequacy (%)	17.704	11.440	13.980	18.190	15.688	34,951
Asset quality (%)	-1.755	-2.060	-1.500	-1.140	1.102	34,559
Management quality	-0.021	0.000	0.000	0.000	0.099	34,952
Earnings (%)	0.430	0.154	0.658	1.099	2.987	34,952
Liquidity (%)	10.587	3.698	6.995	13.346	11.393	34,600
Sensitivity to market risk (%)	21.648	9.664	19.105	30.026	16.289	34,909
Deposit-to-asset ratio (%)	82.112	79.937	84.752	88.290	12.277	34,952
Leverage (%)	8.929	7.206	8.913	10.497	2.978	34,951
Total core deposits (\$)	472,533,200	50,043,000	102,730,000	226,816,500	3,368,711,000	34,952
Size (\$)	832,369,700	72,335,500	149,255,500	332,966,000	6,288,971,000	34,952
Age	70.646	24.000	82.000	106.000	45.168	34,949
Regional Economics						
Personal income growth (%)	3.122	0.300	3.100	5.600	5.955	34,952
Panel B: Descriptive Statistics according to Lobbying/Enforcement Status						
Variable	No Actions			Severe Actions		
Non Lobbying Banks						
Capital adequacy (%)	32,679			1,605		
ROA (%)	17.398			12.137		
Z-score	0.548			-2.196		
Size (\$)	3,759			1,967		
	493,462,600			464,411,200		
Lobbying Banks						
Capital adequacy (%)	646			22		
ROA (%)	46.670			28.355		
Z-score	1.156			-3.573		
Size (\$)	3,393			2,956		
	18,000,000,000			28,300,000,000		

Table 5: Bank Lobbying and Severe Enforcement Actions: Base Models

This table presents estimates from probit regressions explaining the likelihood of a severe enforcement action. The dependent variable is Severe action. All the regressions control for the six components derived from the CAMELS rating system (Capital adequacy, Asset quality, Management quality, Earnings, Liquidity, and Sensitivity to market risk), Deposit-to-asset ratio, Leverage, Total core deposits, Size, Age, Personal income growth, regulator fixed effects, year fixed effects, and state fixed effects. In Panel A, Models (1) and (2) are estimated for the 2008-12 sample period, while Models (3) and (4) are estimated for the 1998-2012 sample period. In Panel B, the same models are estimated but using the subsample of banks supervised by either the OCC (i.e., Models (1) and (2)), the FDIC (i.e., Models (3) and (4)), or the Fed (i.e., Models (5) and (6)). Panel B only reports the coefficients of variables of interest for brevity. All variables are defined in Appendix A. Average marginal effects are reported and robust standard errors clustered by bank are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Panel A: All Banks				
	(1)	(2)	(3)	(4)
	2008-12 Sample		1998-2012 Sample	
Bank Lobbying				
Lobbying	-0.021*** (0.007)		-0.007*** (0.003)	
Lobbying experience		-0.008** (0.003)		-0.003* (0.002)
Financials and Demographics				
Capital adequacy	-0.116*** (0.034)	-0.116*** (0.034)	-0.060*** (0.007)	-0.060*** (0.007)
Asset quality	-1.738*** (0.102)	-1.737*** (0.102)	0.073*** (0.023)	0.072*** (0.023)
Management quality	-0.003 (0.010)	-0.003 (0.010)	-0.019*** (0.003)	-0.019*** (0.003)
Earnings	-0.838*** (0.080)	-0.838*** (0.080)	-0.717*** (0.019)	-0.717*** (0.019)
Liquidity	0.035*** (0.011)	0.035*** (0.011)	0.019*** (0.005)	0.019*** (0.005)
Sensitivity to market risk	-0.008 (0.008)	-0.008 (0.008)	-0.017*** (0.003)	-0.017*** (0.003)
Deposit-to-asset ratio	0.001 (0.017)	0.001 (0.017)	0.030*** (0.006)	0.031*** (0.006)
Leverage	0.005*** (0.001)	0.005*** (0.001)	0.002*** (0.000)	0.002*** (0.000)
Total core deposits	-0.000 (0.002)	-0.000 (0.002)	-0.003*** (0.001)	-0.003*** (0.001)
Size	0.002 (0.002)	0.001 (0.002)	0.003*** (0.001)	0.003*** (0.001)
Age	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Regional Economics				
Personal income growth	0.001 (0.000)	0.000 (0.000)	0.000 (0.001)	0.000 (0.000)
Fixed Effects				
Regulator	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
State	Yes	Yes	Yes	Yes
Pseudo R^2	0.273	0.273	0.252	0.252
Number of Banks	7,698	7,698	11,067	11,067
Number of Observations	34,303	34,303	118,296	118,296

Table 5—Continued

Panel B: Subsamples Analysis according to Banks' Primary Regulator						
	(1)	(2)	(3)	(4)	(5)	(6)
	OCC-Supervised Banks		FDIC-Supervised Banks		Fed-Supervised Banks	
<i>Mean of dependent variable</i>	0.066		0.042		0.042	
Bank Lobbying						
Lobbying	-0.053*** (0.011)		-0.010** (0.005)		-0.009* (0.005)	
Lobbying experience		-0.028** (0.013)		-0.001* (0.000)		-0.003 (0.003)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2	0.227	0.225	0.296	0.296	0.3368	0.3365
Number of Banks	1,382	1,382	5,169	5,169	1,060	1,060
Number of Observations	6,090	6,090	23,340	23,340	4,873	4,873

Table 6: Bank Lobbying and Severe Enforcement Actions: IV Methods

This table presents estimates from IV regressions explaining the likelihood of a severe enforcement action. The dependent variable is Severe action. Columns (1) reports results from seemingly unrelated bivariate probit regression, columns (2) and (4) report results from 2SLS regressions, and column (3) reports results from IV probit regression. In each model, the instruments are Initial market size and Distance to DC. Panel A reports results from the second-stage regressions, while Panel B reports results from the first-stage. All models are estimated for the 2008-12 sample period and use the same set of control variables as in Table 5. This table only reports the coefficients of variables of interest for brevity. All variables are defined in Appendix A. Average marginal effects are reported (in columns (1) and (3)) and robust standard errors clustered by bank are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)
Panel A: Second-Stage Results				
Bank Lobbying				
Lobbying	-0.048*** (0.016)	-0.219** (0.101)		
Lobbying experience			-0.581* (0.337)	-0.083** (0.038)
Controls	Yes	Yes	Yes	Yes
Regulator FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes
Method of Estimation	biprobit	2SLS	ivprobit	2SLS
R^2	-	0.189	-	0.1906
Number of Banks	7,698	7,698	7,698	7,698
Number of Observations	34,303	34,303	34,303	34,303
Panel B: First-Stage Results				
Instruments				
Distance to DC	-0.002** (0.001)	-0.001* (0.000)	-0.003** (0.002)	-0.001* (0.000)
Initial market size	3.007*** (0.712)	0.675*** (0.084)	1.820*** (0.064)	1.811*** (0.208)
Controls	Yes	Yes	Yes	Yes
Regulator FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes
F test of excluded instruments	-	32.608	-	37.956
Hansen J -statistic (p -value)	-	0.289	-	0.322
Wald test of $\rho=0$ (p -value)	0.126	-	0.165	-

Table 7: Bank Lobbying and Severe Enforcement Actions: Robustness

This table presents estimates from probit (unless otherwise specified) regressions explaining the likelihood of a severe enforcement action. The dependent variable is Severe action. Column (1) presents estimates from linear probability models including bank fixed effects. Column (2) restricts the sample to lobbying banks only. Column (3) considers alternative control variables. In particular, Asset quality is the negative of the ratio of net losses to total loans and leases; Management quality is the negative of the number of enforcement actions against personnel and individuals at time t ; Earnings is the ratio of net interest income to earning assets; Leverage is the ratio of total equity to total book assets; Total core deposits is replaced by total deposits; Personal income growth is replaced by the state macro index growth. Capital adequacy, Liquidity, Sensitivity to market risk, Deposit-to-asset ratio, Size, and Age are defined as in Table 5. Columns (4) and (5) exclude the top and bottom quartiles of banks based on the variable Capital adequacy. Column (6) excludes all banks headquartered in New York City and Washington, DC. Column (7) excludes the top decile of banks based on the variable Size. Column (8) includes higher-order powers of Size (i.e., Size squared and Size cubed). In Panel A, the independent variable of interest is Lobbying, while, in Panel B, the independent variable of interest is Lobbying experience. All models are estimated for the 2008-2012 sample period and use (unless otherwise specified) the same set of control variables as in Table 5. This table only reports the coefficients of variables of interest for brevity. All variables are defined in Appendix A. Average marginal effects are reported and robust standard errors clustered by bank are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Description	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Linear Probability Model	Lobbying Bank Sample	Different Controls	Exclude Top 25% Capital Adequacy	Exclude Bottom 25% Capital Adequacy	Exclude New York City and Washington, DC	Exclude Top 10% Size	Higher-Order Powers of Size
Panel A: Lobbying								
Lobbying	-0.031** (0.014)	-0.036* (0.021)	-0.019*** (0.007)	-0.023** (0.009)	-0.013** (0.006)	-0.021*** (0.007)	-0.018** (0.009)	-0.015** (0.008)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Regulator FE	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FE	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	Yes	No	No	No	No	No	No	No
Within R^2	0.058	-	-	-	-	-	-	-
Pseudo R^2	-	0.290	0.237	0.265	0.182	0.274	0.277	0.274
Number of Banks	7,698	221	7,698	6,414	6,414	7,550	6,911	7,698
Number of Observations	34,303	798	34,303	25,727	25,727	34,026	30,872	34,303
Panel B: Lobbying Experience								
Lobbying experience	-0.012** (0.006)	-0.023 (0.014)	-0.006** (0.003)	-0.008** (0.004)	-0.007* (0.004)	-0.009* (0.005)	-0.006* (0.004)	-0.006** (0.003)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Regulator FE	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State FE	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	Yes	No	No	No	No	No	No	No
Within R^2	0.156	-	-	-	-	-	-	-
Pseudo R^2	-	0.305	0.239	0.272	0.181	0.274	0.268	0.274
Number of Banks	7,698	221	7,698	6,414	6,414	7,550	6,911	7,698
Number of Observations	34,303	798	34,303	25,727	25,727	34,026	30,872	34,303

Table 8: Bank Lobbying and Severe Enforcement Actions: Matching Methods

This table provides estimates of the mean difference between the likelihood of a severe enforcement action for lobbying banks and non-lobbying banks; i.e. the average treatment effect on the treated (ATT). Column (1) report the ATT estimates, while column (2) reports the number of matched treated. For the estimation of the propensity score, I estimate unreported probit regressions where the dependent variable is Lobbying and I match on the logarithm of the odds ratio of the propensity score. The independent variables are the same as in Table 5. The estimators, which are described in detail in Heckman, Ichimura, and Todd (1997, 1998), are defined as follows: Near neighbor chooses for each lobbying bank, the n non-lobbying banks with closest propensity scores, and uses the arithmetic average of the n non-lobbying banks. I use $n=1, 10, 50,$ and 100 with caliper = 0.01. I allow replacement, i.e. each matching observation may be used more than once. Gaussian and Epanechnikov employ a weighted average of non-lobbying banks, with more weight given to non-lobbying banks with propensity scores that are closer to the lobbying bank propensity score. For Gaussian and Epanechnikov, I specify a propensity score bandwidth (h) that limits the sample of non-lobbying banks. I specify that $h = 0.01$. The number of observations of the matched sample may be lower than the number of banks to be matched because the probit model may not find a suitable match, such as when the propensity score of a lobbying bank falls outside of the support of non-lobbying bank propensity scores. All variables are defined in Appendix A. Standard errors are in parentheses under the parameter estimates. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Estimator	(1)	(2)
	ATT	Number of matches
	Lobbying	
Near neighbor ($n = 1$; caliper=0.01)	-0.049*** (0.019)	386
Near neighbor ($n = 10$; caliper=0.01)	-0.036** (0.015)	386
Near neighbor ($n = 50$; caliper=0.01)	-0.036** (0.014)	386
Near neighbor ($n = 100$; caliper=0.01)	-0.036** (0.014)	386
Gaussian	-0.028** (0.014)	495
Epanechnikov	-0.027** (0.014)	484

Table 9: Lobbying Expenditures, Revolving Door Lobbyists, and Direct Lobbying on Regulators

This table presents estimates from probit regressions explaining the likelihood of a severe enforcement action. The dependent variable is Severe action. Models (1)-(3) report results from the full sample of banks, while Models (4)-(6) report results from the subsample of lobbying banks. This table considers other measures of lobbying: Lobbying expenditures, Revolving door lobbyists, Direct lobbying on regulators. All models are estimated for the 2008-12 sample period and use the same set of control variables as in Table 5. This table only reports the coefficients of variables of interest for brevity. All variables are defined in Appendix A. Average marginal effects are reported and robust standard errors clustered by bank are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	All Banks			Lobbying Banks		
Bank Lobbying						
Lobbying expenditures	-0.002** (0.001)			-0.002 (0.005)		
Revolving door lobbyists		-0.026*** (0.006)			-0.072* (0.040)	
Direct lobbying on regulators			-0.007* (0.004)			-0.013** (0.006)
Controls						
Regulator FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2	0.273	0.273	0.272	0.161	0.190	0.342
Number of Banks	7,698	7,698	7,698	239	239	239
Number of Observations	34,303	34,303	34,303	668	668	668

Table 10: Bank Lobbying and Risk Taking: Base Fixed-Effects Models

This table presents estimates from fixed-effects regression models explaining several indicators of risk taking. The dependent variable is the Z-score in columns (1) and (2) for the 2008-12 and 1998-2012 periods, respectively; ROA volatility in columns (3) and (4) for the 2008-12 and 1998-2012 periods, respectively; Unused commitment growth in the pre-crisis period in column (5); Loan growth in the pre-crisis period in column (6); Nonperforming loans in the post-crisis period in column (7); and Nonaccrual loans in the post-crisis period in column (8). All the regressions control for Capital adequacy, Asset quality, Management quality, Liquidity, Sensitivity to market risk, Deposit-to-asset ratio, Total core deposits, Size, Age, Personal income growth, year fixed effects, and bank fixed effects. This table only reports the coefficients of variables of interest for brevity. All variables are defined in Appendix A. Robust standard errors clustered by bank are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable	Z-score	ROA volatility	Unused commitment growth	Loan growth	Nonperforming loans	Nonaccrual loans
Panel A: Lobbying						
Lobbying	-0.120** (0.061)	0.172** (0.084)	0.089** (0.043)	0.054** (0.022)	0.011*** (0.003)	0.007** (0.003)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	Yes	Yes	Yes	Yes	Yes	Yes
Within R^2	0.155	0.107	0.021	0.052	0.294	0.231
Number of Banks	7,447	7,447	10,423	10,423	7,698	7,698
Number of Observations	33,604	33,604	80,555	80,555	34,303	34,303
Panel B: Lobbying Experience						
Lobbying experience	-0.083* (0.049)	0.108* (0.059)	0.060*** (0.017)	0.027** (0.013)	0.012*** (0.004)	0.006** (0.003)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	Yes	Yes	Yes	Yes	Yes	Yes
Within R^2	0.156	0.129	0.018	0.042	0.294	0.230
Number of Banks	7,447	7,447	10,423	10,423	7,698	7,698
Number of Observations	33,604	33,604	80,555	80,555	34,053	34,053

Table 11: Bank Lobbying and Performance

This table presents estimates from fixed-effects regression models explaining performance. The dependent variable is ROA in Models (1)-(4) and + 3-years ROA in Models (5) and (6). Models (1) and (2) report the base results for which the lobbying indicators (i.e., Lobbying or Lobbying experience) are the independent variables of interest. Models (3)-(6) report results from interacting lobbying indicators (i.e., Lobbying or Lobbying experience) with the variable Uncertainty exposure shock. Uncertainty exposure shock is defined as the standard deviation (calculated for a rolling 3 years window) of the real per capita personal income growth (county level). All the regressions control for Capital adequacy, Asset quality, Management quality, Liquidity, Sensitivity to market risk, Deposit-to-asset ratio, Total core deposits, Size, Age, Personal income growth, year fixed effects, and bank fixed effects. All models are estimated for the 2008-12 sample period. This table only reports the coefficients of variables of interest for brevity. All variables are defined in Appendix A. Robust standard errors clustered by bank are in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	Base Models		Uncertainty exposure (ROA _t)	Uncertainty exposure (ROA _t)	Uncertainty exposure (ROA _{t+3})	Uncertainty exposure (ROA _{t+3})
Lobbying	-0.002* (0.001)		-0.002* (0.001)		-0.001* (0.001)	
Lobbying experience		-0.006*** (0.003)		-0.002 (0.004)		-0.001 (0.001)
Lobbying × Uncertainty exposure shock			-0.001** (0.000)		-0.001* (0.001)	
Lobbying experience × Uncertainty exposure shock				-0.001* (0.000)		-0.001* (0.001)
Shock					0.000 (0.000)	-0.000 (0.000)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	Yes	Yes	Yes	Yes	Yes	Yes
Within R ²	0.157	0.147	0.173	0.173	0.058	0.079
Number of Banks	7,698	7,698	7,698	7,698	6,579	6,579
Number of Observations	34,053	34,053	34,053	34,053	12,856	12,856