Lobbying on Regulatory Enforcement Actions: Evidence from Banking

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This version: May 11, 2015

Abstract

There is growing concern, but still little systematic evidence, about the incidence and drivers of lobbying efforts made by the U.S. banking industry. This paper analyzes the relationship between bank lobbying and supervisory decisions of regulators, and documents its moral hazard implications. From a large sample of commercial and savings banks, I find that lobbying banks are less likely to be subject to a severe enforcement action, suggesting that banks engage in lobbying to gain preferential treatment. These findings are robust to controlling for supervisory ratings and account for endogeneity concerns by employing instrumental variables strategies. I also show a decrease in performance and an increase in default and credit risk at lobbying banks. 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, risk taking

*I am grateful to my advisors, Paul Belleflamme and Armin Schwienbacher, for invaluable guidance. I am also indebted to the members of my dissertation committee, Marco Becht, Enrico Perotti, and Paolo Volpin, for advice and encouragement. I also thank Dion Bongaerts, Gilles Chemla, Paolo Colla, Jean-Gabriel Cousin, Piotr Danisewicz, Hans Degryse, Marc Deloof (discussant), Mathijs van Dijk, Pierre Giot (discussant), Jiekun Huang (discussant), Abe de Jong, Markku Kaustia, Prasad Krishnamurthy (discussant), Lars Norden, Peter Roosenboom, Sophie Shive, Elvira Sojli, Sascha Steffen (discussant), Marno Verbeek, Wako Watanabe (discussant), and participants at seminars at Aalto University, Erasmus University Rotterdam, ESC Rennes, ESSEC Business School, Ghent University, Laval University, Radboud University Nijmegen, SKEMA Business School, Trinity College Dublin, UCLouvain, University Paris-Dauphine, University of Guelph, University of Namur, UQAM Montreal, and at the 2015 ALEA Meetings at Columbia, 2015 SFS Finance Cavalcade at Georgia Tech, 2015 FIRS Conference in Reykjavik, 2015 MoFiR Workshop on Banking in Kobe, and 2015 IWH-FIN-FIRE Workshop on Financial Stability in Halle for useful comments. All remaining errors are my own.

1 Introduction

The recent financial crisis demonstrated that weaknesses in banking regulatory oversight significantly contributed to the buildup of risk ahead of the crisis (Kane, 2012).[1] As an important source of rising political influence for the banking industry, lobbying is often blamed to hamper the ability of regulators to design proper rules and to enforce the rules in place.[2] Indeed, banks engaged in lobbying activities can allegedly incentivize the regulator to provide favorable treatment, especially when it comes to *enforce* regulations.[3] The preferential treatment, associated with political influence, may in turn magnify the moral hazard problem—that politically active banks can take risks expecting to have favorable treatment when things get bad. This laxity in the supervisory process, in conjunction with the moral hazard problem, created an environment which encouraged excessive risk taking and, ultimately, contributed to the financial meltdown. Despite the continuing debate on this issue and numerous policy prescriptions, 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 fill this gap by pursuing two goals. First, I empirically examine the relationship between bank lobbying and regulatory enforcement action, a crucial micro-prudential supervisory tool 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 or politicians may be driven by information-transmission motives. Banks have better 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 banks' financial condition and future performance, resulting in more informed supervisory decisions. This view predicts that regulators are less likely to issue an enforcement action against lobbying

[1] See 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.

[2] Banking 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.

[3] An internal investigation commissioned by the Federal Reserve Bank of New York on itself uncovers that regulatory agencies and their staffs feared from voicing worries about the banks under their charge. This investigation was commissioned by the New York Fed President William Dudley and conducted by the Columbia University Professor David Beim, who were granted unlimited access to investigate. Beim's report identified a number of weaknesses in the supervisory process; in particular, a risk-averse culture and undue deference to banks they supervised. See, for example, Pedro Nicolaci da Costa, "N.Y. Fed Staff Afraid to Speak Up, Secret Review Found", *Wall Street Journal*, 26 September 2014; Jake Bernstein, "Inside the New York Fed: Secret Recordings and a Culture Clash", *ProPublica*, 26 September 2014.

banks, which are in turn likely to outperform their non-lobbying peers. On the other hand, regulatory agencies might be laxer in their examinations because they may be captured by banks they supervised, consistently with the theory of regulatory capture put forward by Stigler (1971) and formalized by Peltzman (1976). Under this regulatory capture view, banks lobby to incentivize regulators and politicians to provide favorable treatment by offering, e.g., outright bribes, money payments with political use, job opportunities in the industry.[4] 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 from 1999 to 2012. I focus on severe enforcement actions (against institutions) 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. In economic terms, lobbying reduces the probability of getting a severe action by 52.1 percent. I also find that the effect is strongest during the financial crisis, suggesting that in period of intense enforcement activity regulatory agencies are less likely to impose an action against specific banks. Critically, these results are robust to controlling for 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 (see Peek, Rosengren, and Tootell, 1999, for a comprehensive discussion on the importance of the CAMELS ratings). These findings also hold regardless whether lobbying variables capture lobbying expenditures, lobbyists' revolving door profile, or the proportion of banking regulators directly lobbied. As I can only measure the lobbying dimensions regulated under the Lobbying Disclosure Act of 1995 (henceforth LDA), and not the many lobbying practices taking place without being publicly disclosed, my estimates on lobbying can be considered a lower bound of the true effect.

I perform a number of tests to establish the robustness of the results. First, I adopt instrumental variables (IV) strategies to mitigate some of the endogeneity concerns. The two instruments used are the distance of the bank's headquarters to Washington,

[4] An important body of research shows how politicians can exert influence over regulatory agencies by using, among other mechanisms, budgetary control, oversight hearings, and appointment of agents to reward or punish the agencies for decisions that affect their constituencies (see, e.g., McCubbins, Noll, and Weingast, 1999).

D.C. and the initial number of offices held by the lobbying bank. These instruments are valid under both theoretical and statistical grounds. The first instrument proxies for a certain cost of lobbying, while the second for the initial market size, which is predetermined and not correlated with a bank's enforcement probability prevailing in the following years. Second, although I control for bank size, CAMELS rating, and other financial and demographic 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 conduct a set of tests: I use various specifications including different control variables and also look at subsamples excluding large banks, banks with the best or worst financial condition, and banks headquartered in New York City and Washington, D.C. Third, as I recognize that lobbying decision may not be assigned at random, I also repeat my analysis using matching methods to account for potential selection on observables.

With regard to the second goal, I seek to understand the transmission mechanism by examining the risk-taking behavior of lobbying banks and their performance. In this respect, I do find evidence that lobbying banks are associated with higher risk taking and poorer performance. I first examine the aggregate effect of changes in banks' leverage and asset composition on overall bank risk. Following the literature, I rely on the Z-score, a measure of banks' distance to default. In economic terms, I find that lobbying banks increase their default risk (measured by the Z-score) by 13.7 percent of its mean. I also find that lobbying banks tend to follow strategies designed to increase their volatility and credit risk. Then, I find that lobbying banks reliably underperform their non-lobbying peers according to accounting-based performance measure. Overall, this 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 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 (e.g., 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 financial and regulatory outcomes in their favor. For example, Braun and Raddatz (2010) provide international evidence suggesting that banks use their political influence to achieve beneficial regulatory treatment

in exchange for rewards in the form of future employment in the banking industry.[5] 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. Mian, Sufi, and Trebbi (2013) find that, during credit-expansion years, mortgage-industry campaign contributions increasingly predict congressional voting behavior on legislation related to housing. Igan and Mishra (2012) 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 bank risk taking. Theoretical papers include, among others, Acharya and Yorulmazer (2007) and Allen, Carletti, Goldstein, and Leonello (2015). Empirically, Duchin and Sosyura (2014) study the effect of TARP investments on bank risk taking and credit origination (see also Black and Hazelwood, 2013). 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.[7]

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 and, to

[5]Related studies show that private interest can pursue weak financial regulation to enjoy favorable access to credit (see, e.g., Perotti and Volpin, 2007).

[6]Outside 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, consistently 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.

[7]Outside the U.S. context, see also the empirical analyses of Dam and Koetter (2012) and Gropp, Grundl, and Guettler (2014).

my knowledge, I bring in a micro-prudential dimension not yet systematically explored in other studies—namely, the probability of an enforcement action.

I also complement a small number of studies that examine the relationship between special interest politics and regulatory enforcement 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. Shive and Forster (2014) examine the determinants of revolving door hiring (from one of the six U.S. financial regulators) and its effects on listed financial institutions. They find, among other effects, that new hires are positively associated with the probability of regulatory action from their ex-employer against the institution.[8] Compared to Shive and Forster (2014) my study takes a somewhat different approach. Rather than focusing on listed financial institutions, I analyze all other individual institutions. Moreover, I concentrate on several other dimensions of lobbying and, importantly, revolving door takes here a somehow different meaning—i.e., the use of lobbyists with past employment in any public offices rather than firms' new hires from regulatory agencies. I capture in this respect another channel of influence through lobbyists' past political network.

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). Interestingly, Danisewicz, McGowan, Onali, and Schaeck (2014) find that regulatory enforcement actions, as shocks on bank business activities, adversely affect the local economic activity, while Delis, Staikouras, and Tsoumas (2013) distinguish between different types of regulatory enforcement actions and assess their respective impact on bank risk and performance.

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.

[8] Using 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.

2 Institutional Setting and Hypotheses

In this section I provide some background for the empirical analysis. First, I briefly review the legal and regulatory framework for the application of enforcement actions. Then, I present the bank lobbying activities in the political system of the United States. I close this section by laying out the hypotheses to be tested.

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.[9]

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 monitoring and on-site examinations. 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.[10] 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] Agencies may impose informal or formal actions (see below). The

[9] The Office of Thrift Supervision, a bureau of the Department of the Treasury, charters and supervises thrifts, which are however not covered by this analysis.

[10] Call Reports provide a snapshot of the reporting institution at the end of each calendar quarter, including a comprehensive set of financial statements and other information relevant to prudential supervision, such as derivatives and off-balance-sheet items, past due and nonaccrual loans, and charge-offs and recoveries.

[11] The management problems leading the initiation of enforcement actions are typically poor loan

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.

Several types of enforcement actions are available to the regulatory agencies (see 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. On the other hand, *formal* enforcement 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 only consider the following formal actions that are publicly disclosed and 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 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

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. Regulatory enforcement actions, rather than the mere adoption of banking laws and regulations, constitutes the most vital component of effective supervision of banks.

[12]These 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).

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: 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). As noted by Ioannidou (2005), bank size may also be a factor triggering (or not) an action, especially in the presence of asymmetric information. Regulatory agencies and their staffs have thus substantial discretion along the enforcement process—i.e., from the CAMELS grading to the enforcement action decision-making.[13] Furthermore, agencies' deliberations are confidential by regulation and rarely become public.

2.2 Bank Lobbying Activities and the Lobbying Disclosure Act of 1995

Lobbying is the strategic transmission of information in private meetings and venues between interest groups and politicians, regulators, and their staffs. In practice, infor-

[13]The 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 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." See also footnote 3.

mation 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. The influence of interest groups in the political system of the United States is, however, 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]

For the purpose of influencing the Congress and 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. First, lobbying represents by far the most important channel of political influence, especially for the banking industry (see Kerr, Lincoln, and Mishra, 2014). 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 (A) shows that insurance companies, securities and investment firms, real estate interests, and commercial banks constitute the bulk of that money. Moreover, the financial sector, including banks, has intensified its lobbying expenditures over the 1999-2012 period (see Figure 1 (B)).

[Insert Table 1 and Figure 1 about here]

[14] The 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."

[15] The 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."

[16] Recently, 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 Trebbi, 2014; see de Figueiredo and Richter, 2014, for a review).

Second, contrasting with campaign contributions, the vast majority of lobbying expenditures reflect a clear economic motive. Campaign contributions are dependent on congressional cycles and may contain ideological and partisan motives, affecting in turn measurements (Ansolabehere, de Figueiredo, and Snyder, 2003).

Third, one of the most important aspects of 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 lobbying activities. These former political employees include congressional staffers as well as former employees of government agencies, executive bodies, or Presidential administrations. Relatedly, half of former congressmen became lobbyists after leaving office. With their political experience, ex-politicians and ex-political employees have developed a network of colleagues and friends that they can later exploit on behalf of their clients. Career concerns in the lobbying industry may in turn have significant effects on the actions taken by serving as politicians, political employees, or regulators.

2.3 Hypotheses Development

Because lobbying represents a pervasive channel through which banks seek political influence and confers a multitude of advantages, banks whose operations and performance are impacted to a greater extent by banking regulation and supervision are more likely to engage in lobbying. As a result, politically active banks may benefit from preferential treatment in the enforcement process for several reasons. First, banks may want to take up risky strategies because they engage in specialized rent-seeking and, thereby, expect preferential treatment associated with lobbying. Accordingly, banks end up manipulating regulatory agencies that are supposed to control them (Stigler, 1971; Peltzman, 1976). The information asymmetries surrounding supervisory decisions grant considerable discretion to regulators, leaving rooms for lobbyists to manipulate them (if those regulators are inclined to pursue their private interest).[17] Banks get much of what they want from the amounts of time and money spent to lobby regulators and politicians (Mian, Sufi, and Trebbi, 2010; Igan, Mishra, and Tressel, 2012). In particular, they may affect enforcement recommendations and priorities by directly lobbying regulatory agencies (OCC, FDIC, Fed), or even the Department of Justice, or elected politicians who

[17] See the three-tier principal-agent model in the spirit of Laffont and Tirole (1993) in which influence and regulatory/supervisory discretion are linked to asymmetric information and exchange of favors.

have oversight over regulatory agencies.[18] Banks may also induce enforcement decisions in their favor by hiring lobbyists with past employment in public offices; such lobbyists can use their network of colleagues and friends to reach out regulators and politicians. Alternatively, banks may affect indirectly enforcement outcomes by lobbying for favorable regulations or business conditions.[19]

Second, under another view, which resonates with the informational lobbying literature, banks lobby to credibly signal information to regulators on their financial condition and future performance. Lobbying mitigates the information asymmetries between both parties and results in better informed enforcement action decisions. By lobbying banks may prevent tighter supervision that would have restricted their profitable opportunities.[20]

These reasons, in line with either theory of regulatory capture or information-revealing theory, imply that one would observe banks active in lobbying associated with lower probability of receiving a severe enforcement action. Moreover, once the financial crisis hit and regulatory agencies were forced to file increasing number of enforcement actions, several factors—including lobbying—determine who would be subject to an action and who would not be. According to both views, regulators may avoid pursuing lobbying banks in bad times as such banks can be perceived as being costlier to file an enforcement action against them. This motivates the special attention devoted to enforcement outcomes during the crisis.

Both theories have different implications to be tested. On the one hand, as the regulatory capture view posits that lobbying banks engage in specialized rent seeking for preferential treatment, the motive for lobbying involves moral hazard elements. Indeed, banks spend a fair amount of money to lobby for favorable conditions, allowing them to start or continue to take excessive risks. For example, Glenn Simpson[21] describes well

[18] The political economy literature generally assumes that politicians are concerned about their reelection prospects and hence about their level of political support. Politicians, seeking reelection, may use a variety of mechanisms to control regulatory agencies, whose activities may affect the political support from their constituencies (McCubbins, Noll, and Weingast, 1999). For example, the legislator can cut the regulatory agency budget to restrain the potential zeal exerted by an agency in trying to control a bank. See, for example, Nathan Kopel, "Consumer Protection Bureau Mired in Politics," *Wall Street Journal*, June 15, 2011. Elected politicians have also at their disposal other mechanisms to punish or reward regulatory agencies' decisions such as oversight hearings, appointment of agents and threat of turnover.

[19] 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.

[20] A 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 agencies' actions (see Gao and Huang, 2014).

[21] In "Lender Lobbying Blitz Abetted Mortgage Mess," *Wall Street Journal*, December 31, 2007.

that the sought outcome of bank lobbying was the defeat of tighter regulation of the mortgage market that could have reduced reckless lending practices. As discussed, there is a higher ex ante probability that a given lobbying bank will benefit from lax scrutiny by the regulatory agency in case of problem. When financial or management problems occur, the regulatory agency decides to be laxer in its decision to issue a severe action against banks engaged in lobbying. If there is some consistency in the regulatory agencies' treatment of lobbying banks over time, a lobbying bank has (or signals) an increase in the probability that it will not be subject to a severe action again in case of problem. In turn, this can reduce for example proper corporate governance mechanisms (e.g., less monitoring by outside investors), creating a moral hazard problem. Consequently, banks engaged in lobbying activities are in situation allowing them to take additional risk (hidden action). This moral hazard channel suggests that it is likely to observe an empirical association between banks' lobbying activities and their propensity to take risks, consistently with the theory of regulatory capture. Alternatively, the information-based view implies that lobbying banks are likely to outperform their non-lobbying peers with or without affecting their level of risk: lobbying banks can have incentives to take more risk and, because they are better at accounting for the risks properly, they end up with higher performance; or, the lobbying process by facilitating the transmission of prescriptions from regulators in terms of bank risk implies better performance with less risk taking. As the information-based view posits that banks lobby to inform the regulator about their financial condition and future growth prospects, it is likely to observe a positive association between banks' lobbying activities and their performance.

3 Data and Descriptive Statistics

In this section I discuss the variables used in my analysis and provide details about their construction. The choice of variables is driven by theoretical considerations and data availability. Appendix A summarizes variable definitions.

3.1 Regulatory Enforcement Actions

I obtain information about the timing and type of regulatory enforcement actions from SNL Financial. I only focus on actions, labelled 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. 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 affect bank activities, as documented by Delis, Staikouras, and Tsoumas (2013). It is also worth noting that state banking regulators also issue enforcement actions, which are not collected by SNL Financial as they are not provided by all state regulators for the entire sample period. Therefore, I mainly 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. In unreported robustness tests, I also employ separately dummy variables for each severe action; the results (available upon request) are qualitatively similar to the ones presented in the next section.

Descriptive statistics for my enforcement sample appear in Table 2. In total, I record 2,422 severe enforcement actions and 7,915 less severe actions. The largest number of severe actions consists of cease and desist orders, accounting for 60 percent (1,462) of total severe actions. Formal written agreements accounts for 848 observations, while 104 prompt corrective action directives are identified. Deposit insurance threats make up the remainder, but are observed very marginally during my sample period (8 observations). As expected, more than 60 percent of any actions have been issued after 2007, suggesting that the enforcement activity intensifies in crisis period.

[Insert Table 2 about here]

3.2 Risk Taking and Performance

I use four balance sheet variables measuring various dimensions of bank risk taking. My primary measure, the Z-score, focuses on overall bank risk. Defined in Appendix A, the Z-score is a frequently used measure of banks' distance to default, which aggregates the effects of leverage and asset composition (see, e.g., Laeven and Levine, 2009; Delis, Staikouras, and Tsoumas, 2013; Duchin and Sosyura, 2014). The Z-score is computed as the sum of return on assets (ROA) and the equity-to-asset ratio scaled by the standard deviation of asset returns. 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 three measures of bank risk that are respectively based on profit and loan loss ratios (see, e.g., Cebenoyan and Strahan, 2004). The risk variable based on profit ratio is the ROA volatility, which is an estimate of the standard devi-

ation of ROA computed over a three-year rolling time window. The variable based on loan loss ratio is the share of nonperforming loans to total loans. Nonperforming loans include loans that are 90-plus days delinquent and loans in nonaccrual status. 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. As a further robustness test, I also use the share of nonaccrual loans to total loans as an alternative credit risk measure.

As a variable of bank performance, I use the simplest measure of performance of bank profitability, which is usually measured by the ratio of total profits before tax to total assets (ROA).

3.3 Lobbying

I use lobbying disclosure reports to identify banks that are engaged in lobbying in a given year. The LDA indeed 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, D.C. for the promotion of political transparency.[22] Specifically, the lobbying variables used in the empirical analysis (see Appendix A for definitions) are constructed with the following information from the CRP lobbying data: 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); and the revolving door profile of lobbyists hired by the client. I construct several variables capturing different dimensions of lobbying. The main analysis, however, relies on two dummy variables: One indicates whether banks have engaged in lobbying activities in the past three years and captures accordingly long-term lobbying efforts, while the second indicates their current lobbying activities.

I merge data obtained from the CRP with the SNL Financial database 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.[23]

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

[23] This information available on CRP website is not user-friendly (one has to click on each bank to

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.

It is worth noting that I 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.

I identify 387 banks that are active in lobbying in any of the years from 1999 to 2012; this corresponds to 1,421 lobbying bank-year observations. Table 3 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. Banks are increasingly active in lobbying during the sample period. The average amount spent intensified from about $660 thousand in 1999 to $1.35 million in 2012. While the number of lobbying banks is relatively small compared to non-lobbying banks (1.31 percent of bank-year observations), it represents a significant fraction of total amount spent on lobbying by the financial sector.

[Insert Table 3 about here]

Moreover, I manually collect from CRP the issue areas and the name of agencies lobbied. Untabulated statistics from the lobbying sample show that banks lobbied an average of 24 agencies per year, while they only lobbied an average of one agency responsible for supervising commercial and savings banks (i.e., FDIC, OCC, or Fed). Although this is relatively low, in the vast majority of cases banks appear to lobby the Congress, that oversees these agencies. In more than fifty percent of cases, bank lobbying activities are related to finance-specific issues (i.e., accounting, banking, bankruptcy, and financial institutions issues). Lastly, banks' lobbying status is highly persistent over time. The correlations between the lobbying variables and their respective lagged value range from

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.

81.8 to 94.4 percent. This is consistent with Kerr, Lincoln, and Mishra (2014), among other studies, who report a 92 percentage probability that a firm will lobby in a given year conditional on lobbying in the prior year.

3.4 Financials and Demographics

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 (see 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. I obtain Call Reports data for the universe of commercial and savings banks in the United States between 1999 and 2012 from SNL Financial. These reports are also used for the other financial data used in my analysis. 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 also 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.

[Insert Table 4 about here]

3.5 Additional Descriptive Statistics

The full sample consists of 11,114 banks and covers the time period from 1999 through 2012 (108,835 bank-year observations).[24] 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. 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

[24] I have removed observations that correspond to outlier banks.

magnitude of my regression coefficients. Figure 2 also shows that there is no systematic clustering of states where regulatory enforcement actions and lobbying activities took place.

In Table 4 (Panel B), I describe the characteristics of banks subject to an enforcement action. Compared to banks not subject to an action, those whose regulator issued an action against are significantly less healthy in terms of capital adequacy, asset quality, management quality, and earnings; this is, however, not the case for two CAMELS components: Liquidity and Sensitivity to market risk. Along related dimensions, banks subject to an action are more leveraged and riskier (low Z-score and high delinquency rate). Delis, Staikouras, and Tsoumas (2013) document a similar pattern between enforcement outcome and risk taking. The regulatory agencies also tend to issue a severe action to banks that are bigger and younger.

[Insert Figure 2 about here]

Table 4 (Panel B) also provides preliminary evidence that lobbying banks are less often subject to an enforcement action. Past lobbying dummy is 2.6 percentage points higher in banks that are not subject to an action, the difference is statistically significant at the 1 percent level. This suggests that past lobbying activities are associated with lax enforcement outcome. I draw similar conclusions when I compare the enforcement outcome based on Lobbying dummy. As lobbying banks are also different on dimensions other than the enforcement outcome, I now turn to examine this relationship in the multivariate settings to follow.

4 Empirical Results

This section contains the regression results. In the following I analyze the relationship between bank lobbying and enforcement outcome in greater depth. The moral hazard implications of bank lobbying follow with the presentation of regression results relating lobbying and risk taking and performance.

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:

$$\text{Prob}(Y_{it}|\boldsymbol{X_{it}}) = F(\alpha + \boldsymbol{X_{it}}\boldsymbol{\beta}), \tag{1}$$

where $F(\cdot)$ is assumed to be the standard normal distribution.[25] 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. $\boldsymbol{X_{it}}$ contains a variety of factors, including time and state dummies, time-varying control variables, and one of the two main indicators of lobbying (Past lobbying dummy and Lobbying dummy). 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, and Age. It is evident from the descriptive statistics (see Table 4, Panel A) that there are few enforcement action events compared to zeros ("nonevents"); the event of an action occurs in about 2 percent of all bank years. 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.

A few comments are in order. First, 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., $\boldsymbol{\beta}$) 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). My results are however robust to the use of a linear probability model with bank fixed effects, and are reported in Appendix Table B1. Second, it is also worth emphasizing that I do not observe much variation of my lobbying measures within banks, as discussed in section 3.3. The clear advantage of fixed-effect model then comes at a certain price and the drawback results from its inefficiency in estimating the effect of variables that have very little within variance.

[Insert Table 5 about here]

Models (1) and (2) of Table 5 report the base regression results for the full sample. The results of the regression analysis are consistent with the univariate evidence presented in the previous section. The two main indicators of lobbying (Past lobbying dummy

[25] The estimation results are qualitatively similar if a logit model is used.

and Lobbying dummy) 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 active in lobbying in the past three years are 1.1 percentage points less likely to receive a severe enforcement action. Regarding contemporaneous lobbying activities, the effect is slightly less significant (statistically and economically). From Model (2), I find that banks currently active in lobbying are 0.7 percentage points less likely to be subject to an action. Given the unconditional probability of a severe enforcement action of 2.2 percent, both effects are economically meaningful. Indeed, lobbying reduces the probability of a severe action by 52.1 percent and 32.3 percent, respectively from Models (1) and (2).

Next, I restrict the sample to the period covered by the last financial crisis. During this period, which is characterized by an intensive enforcement activity, the regulatory agencies may face higher constraints, affecting their decision to issue an enforcement action against particular banks. Models (3) and (4) of Table 5 show that lobbying tends to make an action much less likely during the 2008-09 financial crisis. From Models (3) and (4), it can be seen that the impact of lobbying is economically stronger. In particular, the economic magnitude of Lobbying dummy is more than twice as big as for the full sample (Model (4)). This suggests that regulatory agencies appear to be even more influenced by lobbying during intensive crisis-related enforcement activity. To verify the robustness of my results to the crisis period, I run the same regression on the non-crisis sample. Models (5) and (6) show that the results hold regardless the period considered.

The evidence from financial and demographic control variables indicates that banks are more likely to receive a severe enforcement action if they are larger, more leveraged, and, in some specifications, have higher deposit-to-asset ratio and lower levels of core deposits. 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 0.8 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 2.4 percentage points increase in the likelihood of a severe enforcement action.

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 dummy variables.

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 (unobserved) component of the 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 dummy variables.

I employ two instruments. As a first instrument, I consider the distance (in km) of the bank's headquarters to Washington, D.C., a proxy for 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, D.C.[26] I can arguably assume that this instrument, called Distance to D.C., affects a bank's lobbying decision, but has no independent effect on the outcome under study. As a second instrument, I use the initial (in 1998) number of offices held by the lobbying bank, a proxy for market size. Bombardini (2008) shows theoretically and empirically that institutions are more likely to lobby if they are relatively large compared with market size. This second instrument (called Initial market size) is unlikely to be correlated with enforcement decisions prevailing in the sample years as the initial number of offices is predetermined.

As my empirical models are characterized by binary outcome and treatment variables, I adopt two common IV strategies to estimating causal effects in such models (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

[26] A number of papers show that greater geographic distance leads to higher communication and information costs and, thereby, affect banks' decision (see, e.g., Degryse and Ongena, 2005).

can be written as:

$$L_{it} = 1[\boldsymbol{X_{it}}\boldsymbol{\beta_1} + \boldsymbol{\gamma_1}\boldsymbol{Z_{it}} + v_{it} > 0],$$

where $\boldsymbol{X_{it}}$ and $\boldsymbol{Z_{it}}$ 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 dummy), is determined by the latent index:

$$Y_{it} = 1[\boldsymbol{X_{it}}\boldsymbol{\beta_2} + \boldsymbol{\delta_2}\boldsymbol{L_{it}} + \epsilon_{it} > 0],$$

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 $\boldsymbol{Z_{it}}$. 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 columns (1) and (2), Panel A, I present the MLE bivariate probit estimates for Past lobbying dummy and Lobbying dummy, respectively, using the Distance to D.C. and Initial market size as instruments and the same right-hand side variables I use for equation (1). In both models the MLE estimates of the marginal effect of (past and current) lobbying indicators are clearly in line with estimates from Table 5, though they give slightly larger estimates: -0.028 versus -0.011 for Past lobbying dummy and -0.013 versus -0.007 for Lobbying dummy. The MLE estimate of the correlation coefficient ρ is positive and statistically insignificant only in column (2).

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

$$Y_{it} = \alpha + \boldsymbol{X_{it}}\boldsymbol{\beta} + \delta L_{it} + \epsilon_{it}$$

with IV, the estimates of δ is again negative and statistically significant at conventional levels. The 2SLS estimates, reported in columns (3) and (4), Panel A, confirm again those obtained in Table 5. Importantly, I report evidence on the validity of instruments in Panel B. If Distance to D.C. and Initial market size 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 Robustness and Alternative Explanations

In this section I evaluate the robustness of the results presented so far to alternative explanations. I start by considering different measures of banks' financial and managerial conditions and then I address issues related to unspecified or unobservable variables correlated to the lobbying indicators. Tables 7 and 8 summarize these robustness tests.

First, I would like to check the robustness of my results to different choice of measures proxying the CAMELS components. I also consider alternative measures for Leverage and Total core deposits, next to the CAMELS components. These alternative measures are discussed in Appendix A. Each CAMELS component is, however, not subject to an alternative measure due to data availability. Column (1) of Table 7 (Panels A and B) 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 and managerial conditions.

Second, 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. In columns (2) and (3), I exclude the top (bottom) 25 percent of the banks with best (worst) financial condition, as proxied by banks' capital adequacy. Excluding banks with best or worst financial health does not affect the economic and statistical significance of my results. Third, in column (4), I exclude banks headquartered in New York City and Washington, D.C. to evaluate whether my results are not driven by a subset of banks with strong connections to Congress and regulatory agencies, given their critical localization. The findings hold after eliminating banks located in these centers of influence regardless the lobbying indicators used.

Fourth, I consider the issue of banks' systemic importance. My results can be driven by a subset of large banks, which would receive unconditionally preferential treatment irrespective of their lobbying efforts given their systemic risk. To address this possibility, I exclude the largest banks in my sample. Column (5) 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. My results on each lobbying indicator are hardly altered. In column (6) 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, in which the dependent variable is Past lobbying/Lobbying dummy. My choice of independent variables includes economically meaningful factors such as Earnings, Deposit-to-asset ratio, Leverage, Size, Age, year dummies, and state dummies. It is worth emphasizing that 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 Past lobbying dummy (Lobbying dummy) range from -0.020 to -0.024 (from -0.011 to -0.020), while statistical significance reaches the 1 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 further explores the robustness of the results to key dimensions of banks' lobbying activities.

4.4 Channels of Lobbying Influence

When banks lobby they must state in their disclosure reports, among other data, the total amount they spend, the name of lobbyists employed and the agencies lobbied. The main analysis uses dummy variables capturing whether or not a bank is active in lobbying activities as the main treatment variables of interest. Here, I further explore heterogeneity in banks' lobbying practices. I consider the effect of three key dimensions of lobbying on the probability of getting a severe enforcement action. First, lobbying

banks vary in the total amount they spend in their lobbying efforts. Banks spending more in lobbying would have the most influence to reach out or pressure regulators and politicians to obtain preferential treatment. Therefore, I consider the effect of the total amount banks spent on lobbying. Second, an important channel of lobbying influence is political or regulatory employment held *before* lobbying involvement. Lobbyists hired by banks with past political or regulatory experience may induce regulators to make bias supervisory decision because of the lobbyist having been "socialized" in a public office environment. I consider the effect played by lobbyists serving or having served in public offices. Third, banks may also direct their lobbying efforts towards the Congress or federal agencies, including the OCC, FDIC, and Fed. I thus examine whether the intensity of lobbying efforts made by commercial and saving banks towards their regulators is more effective to induce supervisory decision in their favor. To capture these three channels of lobbying influence, I use the following variables constructed from the lobbying disclosure filings: Lobbying expenditures, Revolving door dummy, and Banking regulators lobbied. These variables are defined in Appendix A.

I present the results on these alternative independent variables of interest in Table 9. I use two estimation methods in this test. In Models (1)-(3) I report average marginal effects of probit models, just as I did in the main analysis. In Models (4)-(6) I instead use linear probability models to check the robustness of my results. The variable Lobbying expenditures has a negative and statistically significant coefficient, which implies that banks spending more on lobbying are more likely to benefit from laxity in the supervisory process. In economic terms, an increase of $100 thousand in the amounts spent on lobbying in the past three years corresponds to a 0.7 percentage points reduction in the likelihood of an action (see Model (1)), which is economically significant given the unconditional probability of a severe action of 2.2 percent. Regarding revolving door, the effect is more significant (statistically and economically) compared to lobbying expenditures. I find that banks employing revolving door lobbyists in the past years are 0.8 percentage points less likely to be subject to an action (see Model (2)). As for the fraction of banking regulators lobbied, an increase in the proportion of banking regulators directly lobbied has a negative effect on the likelihood of getting an action, but the coefficient fails to be statistically significant at conventional levels in Model (3). It is however important to note that banks lobby banking regulators in few cases, resulting in low variation in the data and affecting in turn the identification. Models (4)-(6) paint a consistent picture with probit models. The coefficients on lobbying variables are always negative and statistically significant at conventional levels.

The results I obtain indicate that banks use various instruments to intensify their lobbying efforts towards regulators and politicians. I now turn to examine the reasons why banks engage in lobbying in order to benefit from lax treatment by regulators.

[Insert Table 9 about here]

4.5 Risk Taking and Performance in Lobbying Banks

So far, I have shown that bank lobbying reduces the likelihood of a severe enforcement action. Lobbying activities influence the way banks are run, especially regarding how much risk they take and how they perform. In this section I pursue my second goal of gaining a deeper insight into lobbying banks' risk-taking behavior and performance. One possibility, involving moral hazard elements, is that the lobbying process acts as a shield from supervisory scrutiny leading banks to take more risk. 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. Table 10 presents the results.

The first outcome I consider is the measure of default risk, namely the Z-score. I take the natural logarithm of this score given its skewed distribution (see Figure 3). I complement my analysis with bank risk measures based on profits and loan loss ratios. Then, the other outcome I look at is the ROA, an accounting-based measure of performance. Each column of Table 10 reports the results of panel regressions of bank risk and performance, where the dependent variables include the Z-score, ROA volatility, nonperforming loans, nonaccrual loans, and ROA, 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, 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 and decrease in performance at lobbying banks.

[Insert Table 10 and Figure 3 about here]

In Models (1) and (2) I show that bank lobbying is associated with higher default risk, an effect that is significant for both lobbying dummy variables. Banks active in lobbying in the last three years show a decrease in the Z-score of 0.643 relative to non-lobbying banks with similar characteristics, which is 13.7 percent of its mean value (in logarithm form)—recalling that a smaller estimated Z-score implies more default risk. The effect on banks currently active in lobbying is qualitatively similar. In Models (3) and (4) I consistently find that lobbying banks have higher ROA volatility than non-lobbying banks.

To further investigate the analysis of risk, I turn to the risk associated with one key channel of bank operations: credit risk. Models (5) and (6) show that lobbying banks

are associated with higher nonperforming loans ratio. For example, Model (5) shows that banks engaged in lobbying in a recent past are associated with nonperforming loans ratio that is 0.011 higher than non-lobbying banks, which is 2.6 percent of the mean of the variable (taken in logarithm). The results in Models (7) and (8) mirror those found in Models (5) and (6) for the nonaccrual loans ratio, and are very similar.

The last two models examine the role of lobbying on bank performance. The evidence in Models (9) and (10) suggests that lobbying banks significantly underperform their non-lobbying counterparts. The differences in performance are also economically significant. Banks active in lobbying in the last three years show a decline in their ROA of 1 percentage point. Similarly, banks currently active in lobbying show a decrease of their ROA of 0.3 percentage points.

For robustness purposes, I repeat the analysis on bank risk and performance for alternative model specifications and subsamples as in Table 7. Also, I account for endogeneity concerns by using IV strategies. The results are summarized in Appendix Table B2. This table only reports the coefficients of variables of interest for brevity and presents the results for the five risk taking/performance measures (columns) matched with the two lobbying indicators (rows). Consequently, 10 different specifications are reported for each panel. In Panel A I exclude the top quartile of banks based on Capital adequacy, while Panel B I exclude the bottom quartile of banks. Panel C excludes all banks headquartered in NewYork City and Washington, D.C. Panel D excludes the top decile of banks based on Size and Panel E includes Size squared and cubed. Panel F presents estimates from 2SLS regressions, where the instruments are again Distance to D.C. and Initial market size. These results do not affect the conclusions drawn on risk-taking behaviors and performance.

In summary, lobbying banks, which are less likely to be subject to severe action, tend to engage in additional risk taking—namely, default, volatility, and credit risk. These results appear, therefore, consistent with the theory of regulatory capture à la Stigler (1971) and Peltzman (1976). The results on bank performance rule out an explanation echoing the informational lobbying literature (Grossman and Helpman, 2001).

5 Conclusion

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 microprudential 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. The effect identified is stronger during the financial crisis, suggesting that regulators face higher constraints in periods of intense regulatory activity and are more politically influenced. The evidence on 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.

From a policy perspective, my findings have implications for the redesign of banking regulation 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 Regulatory Enforcement Actions

Severe action dummy: 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, and zero otherwise.

Less severe action dummy: 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, and zero otherwise.

Formal written agreements: the number of formal agreements observed during the year.

Cease and desist orders: the number of cease and desist orders during the year.

Prompt corrective action directives: the number of prompt Corrective actions during the year.

Deposit insurance threats: the number of deposits insurance threats during the year.

A.2 Risk Taking and Performance

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 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-score), which is normally distributed (see Figure 3). 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.

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.

ROA: return on assets (ROA), measured as the ratio of the annualized net income in the trailing quarter to average total assets.

A.3 Lobbying

Past lobbying dummy: dummy variable equal to one if the bank is active in lobbying in the last three years, and zero otherwise. "Active" means that the bank has at least hired once a lobbying firm or filed a lobbying report.

Lobbying dummy: dummy variable equal to one if the bank is active in lobbying during the year, and zero otherwise. "Active" has the same meaning than for Past lobbying dummy.

Revolving door dummy: dummy variable equal to one if the bank employs at least one revolving door lobbyist in the last three years. A revolving door lobbyist is an individual who serves or has served in public offices and moves to being employed as lobbyist; for more information about the methodology employed, see the CRP website.

Lobbying expenditures: dollar amount spent on lobbying in the last three years.

Banking regulators lobbied: the number of time a regulatory agency (i.e., FDIC, OCC, Fed) is lobbied directly by the bank scaled by the number of time the bank lobbied any institution in the last three years.

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 a bank'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'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'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 a bank's natural demographic market. This is a measure of the size of a bank'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.

B Additional Robustness Tables

Table B1: Impact of Lobbying on the Probability of a Severe Enforcement Action: Linear Probability Models

This table presents estimates from linear probability models explaining the likelihood of a severe enforcement action. The dependent variable is Severe action dummy. All models are estimated for the full sample (i.e., the 1999-2012 interval) and use the same set of control variables as in Table 5, except the state fixed effects which are replaced by bank fixed effects in Models (2) and (4). 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)
Lobbying				
Past lobbying dummy	-0.0167***	-0.0183***		
	(0.0041)	(0.0047)		
Lobbying dummy			-0.0125***	-0.0109*
			(0.0044)	(0.0063)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
State FE	Yes	No	Yes	No
Bank FE	No	Yes	No	Yes
Overall R^2	0.0592	0.0041	0.0587	0.0050
Within R^2	0.0600	0.0618	0.0595	0.0614
Number of Banks	11,017	11,017	11,017	11,017
Number of Observations	107,702	107,702	107,702	107,702

Table B2: Impact of Lobbying on Risk Taking and Performance: Robustness

This table presents estimates from fixed-effects regression models explaining several indicators of risk taking and performance. The dependent variable is the Z-score in Model (1), ROA volatility in Model (2), Nonperforming loans in Model (3), Nonaccrual loans in Model (4), and ROA in Model (5). Panel A excludes the top quartile of banks based on Capital adequacy. Panel B excludes the bottom quartile of banks based on Capital adequacy. Panel C excludes all banks headquartered in NewYork City and Washington, D.C. Panel D excludes the top decile of banks based on Size. Panel E includes higher-order powers of Size (i.e., Size squared and Size cubed). Panel F presents estimates from 2SLS regressions, where the instruments are Distance to D.C. and Initial market size as in Table 6. All models are estimated for the full sample (i.e., the 1999-2012 interval) 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 five performance/risk taking measures (columns) matched with the two lobbying indicators (rows). Consequently, 10 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)
Dependent Variable	Z-score	ROA volatility	Nonperforming loans	Nonaccrual loans	ROA
Panel A: Exclude Top 25% Capital Adequacy					
Past lobbying dummy	-0.6920***	0.7007***	0.0090***	0.0068***	-0.0054***
	(0.0384)	(0.0368)	(0.0007)	(0.0006)	(0.0003)
Lobbying dummy	-0.2614***	0.1898**	0.0026**	0.0036**	-0.0047***
	(0.0809)	(0.0772)	(0.0013)	(0.0016)	(0.0008)
Panel B: Exclude Bottom 25% Capital Adequacy					
Past lobbying dummy	-0.6742***	0.7222***	0.0099***	0.0075***	-0.0124***
	(0.0354)	(0.0349)	(0.0008)	(0.0007)	(0.0015)
Lobbying dummy	-0.1215	0.1153	0.0066**	0.0054**	-0.0020
	(0.0772)	(0.0797)	(0.0027)	(0.0023)	(0.0023)
Panel C: Exclude New York City and Washington, D.C.					
Past lobbying dummy	-0.6438***	0.7485***	0.0107***	0.0080***	-0.0104***
	(0.0328)	(0.0314)	(0.0007)	(0.0006)	(0.0011)
Lobbying dummy	-0.2971***	0.2699***	0.0046***	0.0038**	-0.0039**
	(0.0679)	(0.0672)	(0.0018)	(0.0015)	(0.0016)
Panel D: Exclude Top 10% Size					
Past lobbying dummy	-0.6371***	0.7362***	0.0127***	0.0097***	-0.0098***
	(0.0330)	(0.0314)	(0.0008)	(0.0006)	(0.0012)
Lobbying dummy	-0.2445***	0.1170**	0.0059***	0.0038**	-0.0047***
	(0.0816)	(0.0806)	(0.0020)	(0.0017)	(0.0017)
Panel E: Higher-Order Powers of Size					
Past lobbying dummy	-0.5727***	0.6681***	0.0122***	0.0092***	-0.0093***
	(0.0331)	(0.0316)	(0.0007)	(0.0006)	(0.0011)
Lobbying dummy	-0.1516**	0.1155*	0.0050***	0.0043**	-0.0029*
	(0.0670)	(0.0656)	(0.0019)	(0.0017)	(0.0016)
Panel F: 2SLS Regression					
Past lobbying dummy	-1.0541***	1.0345***	0.0071***	0.0056**	-0.0347***
	(0.1268)	(0.1190)	(0.0026)	(0.0022)	(0.0026)
Lobbying dummy	-2.0102***	2.0010***	0.0156***	0.0118**	-0.0347***
	(0.2672)	(0.2528)	(0.0051)	(0.0044)	(0.0063)

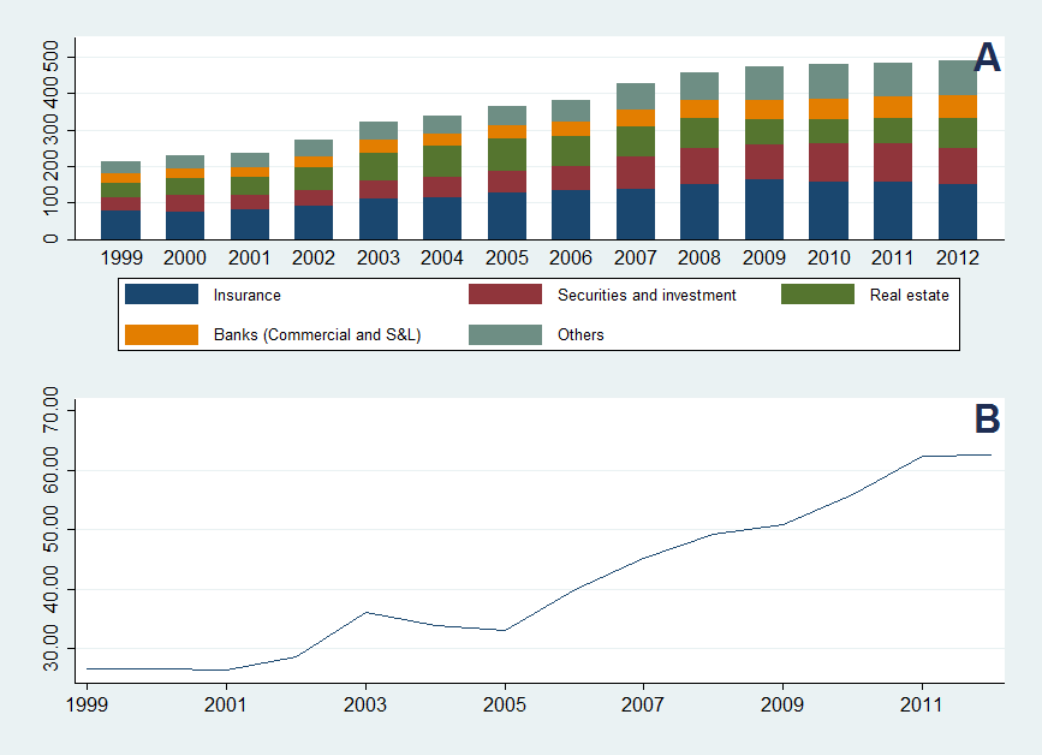

Figure 1: Financial Sector Distribution of Lobbying Expenditures

This figure presents the evolution of lobbying expenditures. Figure A shows the total lobbying expenditures (in $100 million) by financial institutions over time. The financial sector is classified into: (1) Insurance companies, (2) securities and investment companies, (3) real estate companies, (4) commercial and savings banks, and (5) other types of financial firms. Figure B shows the total lobbying expenditures (in $100 million) for the banking industry (i.e., commercial and savings banks) over time. Source: CRP.

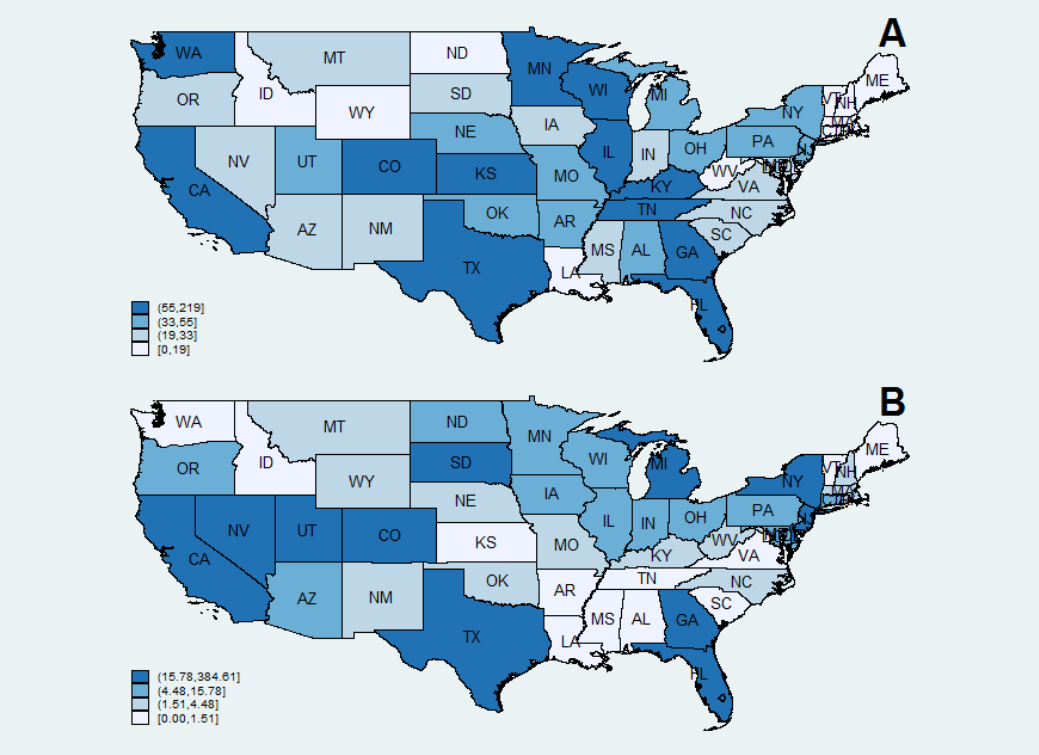

Figure 2: State Distribution of Regulatory Enforcement Actions and Lobbying Expenditures

This figure presents the concentration of regulatory enforcement actions and total lobbying expenditures by states. Figure A shows the state distribution of the total number of severe enforcement actions in the sample. Figure B shows the sum of lobbying expenditures (in $100 million) by commercial and savings banks in the sample. Sources: SNL Financial and CRP.

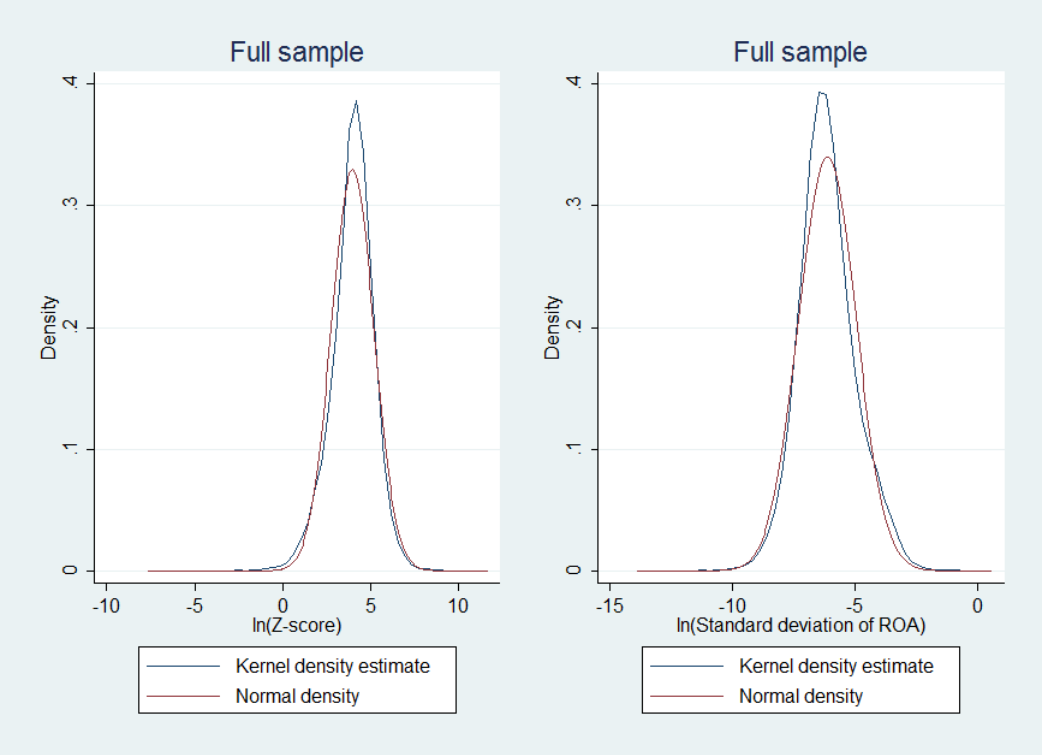

Figure 3: Kernel Densities of Z-score and ROA volatility

This figure reports the kernel densities of the natural logarithm of both Z-score and ROA volatility for the full sample. These variables are defined in Appendix A. Source: SNL Financial.

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.

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

Table 2: 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 1999-2012 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.

Panel A: Time Distribution of Regulatory Enforcement Actions

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
1999	434	58	376	33	25	0	0
2000	363	70	293	35	31	2	2
2001	441	92	349	49	41	2	0
2002	480	109	371	50	56	1	2
2003	492	95	397	48	46	1	0
2004	484	92	392	40	51	0	1
2005	598	58	540	31	27	0	0
2006	532	57	475	27	30	0	0
2007	542	77	465	25	51	1	0
2008	819	186	633	84	100	2	0
2009	1,368	451	917	140	293	18	0
2010	1,749	573	1,176	170	368	34	1
2011	1,123	267	856	52	188	25	2
2012	912	237	675	64	155	18	0
All years	10,337	2,422	7,915	848	1,462	104	8

Panel B: Correlations Between Regulatory Enforcement Actions

	(1)	(2)	(3)	(4)	(5)	(6)
(1) Severe actions	1.000					
(2) Less severe actions	0.421***	1.000				
(3) Formal written agreements	0.591***	0.238***	1.000			
(4) Cease and desist orders	0.777***	0.341***	-0.003	1.000		
(5) Prompt corrective action directives	0.267***	0.090***	0.035***	0.053***	1.000	
(6) Deposit insurance threats	0.063***	0.025***	-0.001	0.008***	0.000	1.000

Table 3: Descriptive Statistics for the Lobbying Sample

This table presents the lobbying expenses of banks by year from 1999 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 1999-2012 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**
1999	8,923	160	1.79%	658,718.000	100,000.000	105,394,880.000
2000	8,640	108	1.25%	957,379.000	240,000.000	103,396,932.000
2001	8,421	117	1.39%	886,367.600	140,000.000	103,705,009.200
2002	8,224	96	1.17%	965,364.400	180,000.000	92,674,982.400
2003	8,109	87	1.07%	1,122,999.000	220,000.000	97,700,913.000
2004	7,958	63	0.79%	1,346,882.000	340,000.000	84,853,566.000
2005	7,889	109	1.38%	991,436.500	420,000.000	108,066,578.500
2006	7,764	96	1.24%	1,190,854.000	400,000.000	114,321,984.000
2007	7,648	100	1.31%	1,268,114.000	355,000.000	126,811,400.000
2008	7,445	108	1.45%	1,125,215.000	70,000.000	121,523,220.000
2009	7,215	118	1.64%	1,082,926.000	80,000.000	127,785,268.000
2010	6,885	87	1.26%	1,779,003.000	230,000.000	154,773,261.000
2011	6,683	86	1.29%	1,440,372.000	240,000.000	123,871,992.000
2012	7,031	86	1.22%	1,344,530.000	240,000.000	115,629,580.000
All years	108,835	1,421	1.31%	1,154,297.179	232,500.000	1,640,256,290.750

Table 4: Univariate Statistics for the Full Sample

This table presents univariate statistics. Panel A presents descriptive statistics for the full sample, consisting of 11,114 commercial and savings banks over the period 1999-2012. Panel B reports the mean value of risk taking, performance, lobbying, financial and demographic variables of banks that are subject (not subject) to a severe enforcement action. The last column of Panel B reports the p-values of a test of difference in the means between banks subject and not subject to a severe action. All variables are defined in Appendix A.

Panel A: Descriptive Statistics

Variable	Mean	25th Percentile	Median	75th Percentile	Standard Deviation	Number of Observations
Regulatory Enforcement Actions						
Severe action dummy	0.022	0.000	0.000	0.000	0.146	108,835
Less severe action dummy	0.045	0.000	0.000	0.000	0.206	108,835
Formal written agreements	0.008	0.000	0.000	0.000	0.088	108,835
Cease and desist orders	0.013	0.000	0.000	0.000	0.115	108,835
Prompt corrective actions	0.001	0.000	0.000	0.000	0.031	108,835
Deposit insurance threats	0.000	0.000	0.000	0.000	0.009	108,835
Risk Taking and Performance						
Z-score	110.281	26.526	56.726	112.023	628.948	106,532
ROA volatility	0.005	0.001	0.002	0.004	0.018	106,532
Nonperforming loans (%)	1.519	0.080	0.530	1.650	3.024	108,008
Nonaccrual loans (%)	1.226	0.050	0.450	1.370	2.521	108,008
ROA (%)	0.806	0.495	0.913	1.291	2.988	108,835
Lobbying						
Past lobbying dummy	0.062	0.000	0.000	0.000	0.240	108,835
Lobbying dummy	0.013	0.000	0.000	0.000	0.114	108,835
Financials and Demographics						
Capital adequacy (%)	17.330	11.060	13.710	18.360	14.084	108,833
Asset quality (%)	-0.999	-1.670	-1.170	-0.570	1.700	108,543
Management quality	-0.015	0.000	0.000	0.000	0.080	108,835
Earnings (%)	0.806	0.495	0.913	1.291	2.988	108,835
Liquidity (%)	7.847	3.405	5.094	8.466	9.546	108,449
Sensitivity to market risk (%)	20.468	8.855	17.884	28.728	15.307	108,797
Deposit-to-asset ratio (%)	82.161	79.634	84.687	88.299	11.156	108,835
Leverage	9.338	7.270	9.198	10.958	2.942	108,832
Total core deposits	211,787.500	36,936.000	76,784.000	171,468.000	591,717.000	108,835
Size (Total assets)	347,958.600	54,996.000	114,603.000	258,914.000	1,001,569.000	108,835
Age	67.942	23.000	78.000	102.000	43.597	108,824

(*continued*)

Table 4—*Continued*

Panel B: Univariate Tests for Difference			
Variable	**Severe Actions (Mean)**	**No Actions (Mean)**	**Difference (p-value)**
Risk Taking and Performance			
Z-score	25.623	112.086	0.000
ROA volatility	0.016	0.005	0.000
Nonperforming loans (%)	7.666	1.381	0.000
Nonaccrual loans (%)	6.288	1.113	0.000
ROA (%)	-1.674	0.861	0.000
Lobbying			
Past lobbying dummy	0.036	0.062	0.000
Lobbying dummy	0.009	0.013	0.050
Financials and Demographics			
Capital adequacy (%)	13.122	17.424	0.000
Asset quality (%)	-1.962	-0.977	0.000
Management quality	-0.034	-0.015	0.000
Earnings (%)	-1.674	0.861	0.000
Liquidity (%)	10.375	7.790	0.000
Sensitivity to market risk (%)	19.760	20.484	0.021
Deposit-to-asset ratio (%)	84.820	82.101	0.000
Leverage	11.298	9.053	0.000
ln(Total core deposits)	11.579	11.276	0.000
Size	12.061	11.756	0.000
Age	53.063	68.274	0.000

Table 5: Impact of Lobbying on the Probability of a Severe Enforcement Action: Base Models

This table presents estimates from probit regressions explaining the likelihood of a severe enforcement action. The dependent variable is Severe action dummy. Models (1) and (2) are estimated for the full sample (i.e., the 1999-2012 interval). Models (3) and (4) are estimated for the crisis sample (i.e., the 2008-2009 period). Models (5) and (6) are estimated for the non-crisis sample (i.e., excluding the 2008-2009 period). 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, year fixed effects, and state fixed effects. 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)
	Full Sample		Crisis Sample		Non-Crisis Sample	
Lobbying						
Past lobbying dummy	-0.0114***		-0.0117**		-0.0106***	
	(0.0015)		(0.0059)		(0.0014)	
Lobbying dummy		-0.0071**		-0.0195**		-0.0065*
		(0.0034)		(0.0098)		(0.0036)
Financials and Demographics						
Capital adequacy	-0.0578***	-0.0619***	-0.1173***	-0.1223***	-0.0549***	-0.0576***
	(0.0142)	(0.0141)	(0.0436)	(0.0436)	(0.0143)	(0.0140)
Asset quality	0.0470	0.0490	-1.6132***	-1.6494***	0.1098***	0.1163***
	(0.0356)	(0.0361)	(0.1481)	(0.1499)	(0.0311)	(0.0314)
Management quality	-0.0289***	-0.0292***	-0.0270**	-0.0270**	-0.0279***	-0.0282***
	(0.0039)	(0.0039)	(0.0137)	(0.0137)	(0.0039)	(0.0039)
Earnings	-0.7871***	-0.769 ***	-0.7338***	-0.7170***	-0.7334***	-0.7590***
	(0.0416)	(0.0400)	(0.0762)	(0.0751)	(0.0534)	(0.0502)
Liquidity	0.0224***	0.0235***	-0.0102	-0.0095	0.0248***	0.0260***
	(0.0058)	(0.0057)	(0.0185)	(0.0185)	(0.0060)	(0.0059)
Sensitivity to market risk	-0.0174***	-0.0176***	-0.0170	-0.0153	-0.0167***	-0.0171***
	(0.0037)	(0.0037)	(0.0123)	(0.0124)	(0.0036)	(0.0036)
Deposit-to-asset ratio	0.0345***	0.0361***	0.0228	0.0242	0.0353***	0.0370***
	(0.0079)	(0.0079)	(0.0221)	(0.0222)	(0.0084)	(0.0084)
Leverage	0.0019***	0.0021***	0.0042***	0.0042***	0.0013***	0.0015***
	(0.0002)	(0.0002)	(0.0007)	(0.0007)	(0.0002)	(0.0002)
Total core deposits	-0.0042***	-0.0041***	-0.0039	-0.0041	-0.0040***	-0.0038***
	(0.0011)	(0.0011)	(0.0025)	(0.0026)	(0.0012)	(0.0012)
Size	0.0046***	0.0045***	0.0048*	0.0056*	0.0042***	0.0041***
	(0.0012)	(0.0012)	(0.0029)	(0.0030)	(0.0013)	(0.0013)
Age	-0.0000	-0.0000	-0.0001	-0.0001	-0.0000	-0.0000
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Fixed Effects						
Year	Yes	Yes	Yes	Yes	Yes	Yes
State	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2	0.2400	0.2379	0.2814	0.2816	0.2311	0.2287
Number of Banks	11,017	11,017	7,438	7,438	11,004	11,004
Number of Observations	107,702	107,702	14,308	14,308	93,212	93,212

Table 6: Impact of Lobbying on the Probability of a Severe Enforcement Action: IV Methods

This table presents estimates from regressions explaining the likelihood of a severe enforcement action. The dependent variable is Severe action dummy. Columns (1) and (2) report results from seemingly unrelated bivariate probit regressions and columns (3) and (4) report results from 2SLS regressions. In each model, the instruments are the distance (in km) of the bank's headquarters to Washington, D.C. and the initial (in 1998) number of offices held by the lobbying bank. Panel A reports results from the second-stage regressions, while Panel B reports results from the first-stage. All models are estimated for the full sample (i.e., the 1999-2012 interval) 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 (2)) 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				
Lobbying				
Past lobbying dummy	-0.0278***		-0.0203**	
	(0.0042)		(0.0091)	
Lobbying dummy		-0.0133*		-0.0373**
		(0.0080)		(0.0151)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes
Method of Estimation	Biprobit	Biprobit	2SLS	2SLS
R^2	-	-	0.0809	0.0803
Number of Banks	11,017	11,017	11,017	11,017
Number of Observations	107,702	107,702	107,702	107,702
Panel B: First-Stage Results				
Instruments				
Distance to D.C.	-0.0008***	-0.0004***	-0.0001***	-0.0001**
	(0.0001)	(0.0001)	(0.0000)	(0.0000)
Initial market size	0.0171***	0.0062***	0.0030***	0.0018***
	(0.0012)	(0.0006)	(0.0002)	(0.0001)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes
F test of excluded instruments	-	-	206.40	91.81
Hansen J-statistic (p-value)	-	-	0.1695	0.2671
Wald test of ρ=0 (p-value)	0.0007	0.3573	-	-
R^2	-	-	0.2890	0.1631
Number of Banks	11,017	11,017	11,017	11,017
Number of Observations	107,702	107,702	107,702	107,702

Table 7: Impact of Lobbying on the Probability of a Severe Enforcement Action: Robustness

This table presents estimates from probit regressions explaining the likelihood of a severe enforcement action. The dependent variable is Severe action dummy. Column (1) 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. Capital adequacy, Liquidity, Sensitivity to market risk, Deposit-to-asset ratio, Size, and Age are defined as in Table 5. Columns (2) and (3) exclude the top and bottom quartiles of banks based on Capital adequacy. Column (4) excludes all banks headquartered in NewYork City and Washington, D.C. Column (5) excludes the top decile of banks based on Size. Column (6) includes higher-order powers of Size (i.e., Size squared and Size cubed). In Panel A, the independent variable of interest is Past lobbying dummy, while, in Panel B, the independent variable of interest is Lobbying dummy. All models are estimated for the full sample (i.e., the 1999-2012 interval) 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	Different Controls	Exclude Top 25% Capital Adequacy	Exclude Bottom 25% Capital Adequacy	Exclude New York City and Washington, D.C.	Exclude Top 10% Size	Higher-Order Powers of Size
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Past Lobbying						
Past lobbying dummy	-0.0108***	-0.0102***	-0.0108***	-0.0113***	-0.0132***	-0.0113***
	(0.0015)	(0.0021)	(0.0012)	(0.0015)	(0.0014)	(0.0015)
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	0.2374	0.2563	0.1443	0.2418	0.2391	0.2400
Number of Banks	11,017	9,567	9,567	10,918	10,284	11,017
Number of Observations	107,702	81,126	81,126	106,942	97,014	107,702
Panel B: Lobbying						
Lobbying dummy	-0.0061*	-0.0088**	-0.0060*	-0.0067**	-0.0121***	-0.0065*
	(0.0035)	(0.0043)	(0.0036)	(0.0032)	(0.0042)	(0.0036)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes
PseudoR^2	0.2356	0.2555	0.1405	0.2399	0.2361	0.2380
Number of Banks	11,017	9,567	9,567	10,918	10,284	11,017
Number of Observations	107,702	81,126	81,126	106,942	97,014	107,702

Table 8: Impact of Lobbying on 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). Columns (1) and (3) report the ATT estimates, while columns (2) and (4) report the number of matched treated. For the estimation of the propensity score, I estimate unreported probit regressions where the dependent variable is Past lobbying dummy (or Lobbying dummy) and I match on the logarithm of the odds ratio of the propensity score. The independent variables are Earnings, Deposit-to-asset ratio, Leverage, Size, Age, year dummies, and state dummies. 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 AppendixA. Standard errors are in parentheses under the parameter estimates. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Estimator	ATT	Number of matches	ATT	Number of matches
	(1)	(2)	(3)	(4)
	Past lobbying dummy		Lobbying dummy	
Near neighbor ($n = 1$; caliper=0.01)	-0.0235***	6,523	-0.0201***	1,345
	(0.0038)		(0.0072)	
Near neighbor ($n = 10$; caliper=0.01)	-0.0196***	6,523	-0.0149***	1,345
	(0.0028)		(0.0047)	
Near neighbor ($n = 50$; caliper=0.01)	-0.0196***	6,523	-0.0138***	1,345
	(0.0027)		(0.0045)	
Near neighbor ($n = 100$; caliper=0.01)	-0.0198***	6,523	-0.0136***	1,345
	(0.0027)		(0.0045)	
Gaussian	-0.0198***	6,685	-0.0106***	1,415
	(0.0026)		(0.0041)	
Epanechnikov	-0.0195***	6,685	-0.0115***	1,415
	(0.0026)		(0.0043)	

Table 9: Impact of Lobbying on the Probability of a Severe Enforcement Action: Other Dimensions of Lobbying

This table presents estimates from probit regressions explaining the likelihood of a severe enforcement action. The dependent variable is Severe action dummy. Models (1)-(3) report results from probit regressions, while Models (4)-(6) report results from linear probability models. This table considers other measures of lobbying. Lobbying expenditures is defined as the dollar amount spent on lobbying in the last three years. Revolving door dummy is defined as a dummy variable equal to one if the bank employs at least one revolving door lobbyist in the last three years. Banking regulators lobbied is defined as the number of time a regulatory agency (i.e., FDIC, OCC, Fed) is lobbied directly by the bank scaled by the number of time the bank lobbied any institution in the last three years. All models are estimated for the full sample (i.e., the 1999-2012 interval) 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)-(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)	(5)	(6)
Lobbying						
ln(Lobbying expenditures)	-0.0006*			-0.0011***		
	(0.0004)			(0.0004)		
Revolving door dummy		-0.0082***			-0.0134***	
		(0.0030)			(0.0047)	
Banking regulators lobbied			-0.0001			-0.0005*
			(0.0003)			(0.0003)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Method of Estimation	Probit	Probit	Probit	LPM	LPM	LPM
Pseudo R^2	0.2415	0.2381	0.2413	0.0611	0.0588	0.0608
Number of Banks	10,750	11,017	10,757	10,750	11,017	10,757
Number of Observations	102,540	107,702	102,572	102,540	107,702	102,572

Table 10: Impact of Lobbying on Risk Taking and Performance: Base (Fixed-Effects) Models

This table presents estimates from fixed-effects regression models explaining several indicators of risk taking and performance. The dependent variable is the Z-score in Models (1) and (2), ROA volatility in Models (3) and (4), Nonperforming loans in Models (5) and (6), Nonaccrual loans in Models (7) and (8), and ROA in Models (9) and (10). 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, year fixed effects, and bank fixed effects. All models are estimated for the full sample (i.e., the 1999-2012 interval). 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.

Dependent Variable	Z-score		ROA volatility		Nonperforming loans		Nonaccrual loans		ROA	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Lobbying										
Past lobbying dummy	-0.6429***		0.7448***		0.0109***		0.0082***		-0.0103***	
	(0.0328)		(0.0314)		(0.0007)		(0.0006)		(0.0011)	
Lobbying dummy		-0.2603***		0.2363***		0.0053***		0.0045***		-0.0033**
		(0.0688)		(0.0680)		(0.0019)		(0.0017)		(0.0016)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bank FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Within R^2	0.1265	0.1127	0.1265	0.1065	0.2263	0.2206	0.1744	0.1696	0.0752	0.0621
Number of Banks	10,403	10,403	10,403	10,403	10,356	10,356	10,356	10,356	10,403	10,403
Number of Observations	105,202	105,202	105,202	105,202	105,202	105,202	105,202	105,202	105,202	105,202