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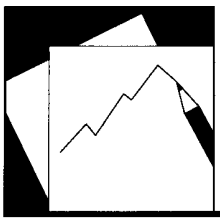

IMF Working Paper

A Fistful of Dollars: Lobbying and the Financial Crisis

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A Fistful of Dollars: Lobbying and the Financial Crisis[1]

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Abstract

Using detailed information on lobbying and mortgage lending activities, we find that lenders lobbying more on issues related to mortgage lending (i) had higher loan-to-income ratios, (ii) securitized more intensively, and (iii) had faster growing portfolios. Ex-post, delinquency rates are higher in areas where lobbyist' lending grew faster and they experienced negative abnormal stock returns during key crisis events. The findings are robust to (i) falsification tests using lobbying on issues unrelated to mortgage lending, (ii) a difference-in-difference approach based on state-level laws, and (iii) instrumental variables strategies. These results show that lobbying lenders engage in riskier lending.

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I. INTRODUCTION

On December 31, 2007, the Wall Street Journal reported that Ameriquest Mortgage and Countrywide Financial, two of the largest mortgage lenders in the nation, spent respectively $20.5 million and $8.7 million in political donations, campaign contributions, and lobbying activities from 2002 through 2006.[2] The sought outcome, according to the article, was the defeat of anti-predatory lending legislation. In other words, timely regulatory response that could have mitigated reckless lending practices and the consequent rise in delinquencies and foreclosures was shut down by some mortgage lenders. Such anecdotal evidence suggests that the political influence of the financial industry contributed to the 2007 mortgage crisis, which, in the fall of 2008, generalized in the worst bout of financial instability since the Great Depression.[3] However, formal analysis of these assertions has so far remained scant.[4]

To the best of our knowledge, this is the first study to examine empirically the relationship between lobbying by financial institutions and mortgage lending in the run-up to the financial crisis. We construct a unique dataset combining information on mortgage lending activities and lobbying at the federal level by the financial industry. By going through individual lobbying reports, we identify lobbying activities on issues specifically related to rules and regulations of consumer protection in mortgage lending, underwriting standards, and securities laws (henceforth, the "specific issues").[5]

The paper focuses on the mortgage lending behavior and performance of financial institutions. First, we analyze the relationship between lobbying and *ex-ante* characteristics of loans originated. We focus on three measures of mortgage lending: loan-to-income ratio (which we consider as a proxy for lending standards), proportion of loans sold (measuring recourse to securitization), and mortgage loan growth rates (positively correlated with risk-taking[6]). Next, we analyze measures of *ex-post* performance of lobbying lenders. In particular, we explore whether, at the Metropolitan Statistical Area (MSA) level, delinquency rates – an indicator of loan quality - are associated with the expansion of lobbying lenders' mortgage lending. We also carry out an event study during key episodes of the financial

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[2] Simpson, Glenn, 2008, "Lender Lobbying Blitz Abetted Mortgage Mess," The Wall Street Journal, December 31; available at http://online.wsj.com/public/article_print/SB119906606162358773.html. See also the Financial Times front page coverage of the Center for Public Integrity study linking subprime originators (a large share of which are now bankrupt) to lobbying efforts to prevent tighter regulations of the subprime market (May 06, 2009, "U.S. banks spent $370 million to fight rules", May 06, 2009, available at: http://www.ft.com/cfms/s/0/a299a06e-3a9f-11de-8a2d-00144feabdc0.html?nclick_check=1).

[3] For a detailed account of the subprime crisis, see Gorton (2008a, 2008b). For a discussion of the mechanisms underlying the various phases of the crisis, see Diamond and Rajan (2009).

[4] Mian, Sufi and Trebbi (forthcoming) focus on the congressional voting behavior on key two pieces of legislation that shaped the policy responses in the U.S. to the current financial crisis.

[5] A sample lobbying report, shown in the appendix Table A2, filed by Bear Stearns and Co. to the Senate for Public Records (SOPR) documents that the company lobbied to change regulations related to mortgage lending standards for the period January-June 2007.

[6] For an analysis of the correlation between fast credit growth and risk, see Dell'Ariccia and Marquez (2006).

crisis to assess whether the stocks of lobbying lenders performed differently from those of other financial institutions.

Our analysis establishes that financial intermediaries' lobbying activities on specific issues are significantly related to both their mortgage lending behavior and their ex-post performance. Controlling for unobserved lender and area characteristics as well as changes over time in the macroeconomic and local conditions, lenders that lobby more intensively (i) originate mortgages with higher loan-to-income ratios, (ii) securitize a faster growing proportion of loans originated; and (iii) have faster growing mortgage loan portfolios. Our analysis of ex-post performance comprises two pieces of evidence: (i) faster relative growth of mortgage loans by lobbying lenders is associated with higher ex-post default rates at the MSA level in 2008; and (ii) lobbying lenders experienced negative abnormal stock returns during the main events of the financial crisis in 2007 and 2008.

We perform a number of tests to mitigate omitted variables and reverse causality concerns. First, we conduct falsification tests by exploiting information about lobbying on financial issues that are *unrelated* to mortgage lending and securitization. Next, we adopt a difference-in-difference strategy to test whether the characteristics of mortgage loans originated by lobbying lenders respond differently to the introduction of anti-predatory lending laws at the state level, than those originated by other lenders. Finally, we adopt instrumental variable strategies using as instruments the lags of explanatory variables, and the distance between the headquarters of the financial institution and Washington, D.C., which is exogenous and proxies for the cost of lobbying. The main findings are robust to these alternative identification strategies.

Our findings indicate that lobbying is associated *ex-ante* with more risk-taking and *ex-post* with worse performance. This is consistent with several explanations, including a *moral hazard interpretation* whereby lenders take up risky lending strategies because they engage in specialized rent-seeking and expect preferential treatment associated with lobbying.[7] Such preferential treatment could be a higher probability of being bailed out, potentially under less stringent conditions, in the event of a financial crisis.[8] Another source of moral hazard could be "short-termism", whereby lenders lobby to create a regulatory environment that allows them exploit short-term gains.[9] Such distortions have been claimed to be related to risk-

[7] An extreme version of moral hazard would materialize if the financial industry was, for all practical purposes, setting its own regulations. Another possibility is that some financial institutions have the specific expertise to get markets out of the crisis, which makes any threat of punishment incredible, encouraging risky behavior (Acemoglu, 2009).

[8] In the current crisis, sixteen of the twenty lenders that spent the most on lobbying between 2000 and 2006 received funds provided by the government under the Emergency Economic Stabilization Act, including the Troubled Assets Program, and the Housing and Economic Recovery Act. In total, lenders that lobbied on specific issues received almost 60 percent of the funds allocated.

[9] See, for instance, Bolton, Scheinkman and Xiong (2006) for a theory of optimal executive compensation inducing managers to favor speculative components of stock prices. Calomiris (2008) provides an overview of incentive problems during the housing market boom. Cheng, Hong, and Scheinkman (2009) report that short-termism is empirically linked to risk-taking.

shifting in financial markets. Under the moral hazard interpretation, misallocation of resources can occur and it might be socially optimal to curtail lobbying or use public oversight to realign incentives.

Yet, other explanations are also consistent with our results and they might entail radically different policy conclusions. First, "bad" lenders could lobby more to mimic "good" lenders and choose riskier lending strategies *ex ante* resulting in worse outcomes *ex post*. Second, lobbying lenders may specialize in catering to borrowers with lower income levels and originate mortgages that appear riskier *ex ante*, with a higher incidence of default in a downturn. In this case, our findings would not necessarily indicate lower credit standards but capture the specialization of the lender. Third, overoptimistic lenders may lobby more intensively against a tightening of lending laws to exploit expected profit opportunities because they underestimate the likelihood of adverse events.[10] As opposed to the moral hazard interpretation, under these explanations, it is possible that financial institutions lobby to reveal information or promote innovation rather than engage in rent-seeking.

While these explanations cannot be definitely ruled out, various tests suggest that they may be less likely to be valid. These tests consist of the inclusion of lender and time-varying area fixed effects; explicit controls for specialization (e.g. whether the lender is subprime, or is regulated by HUD); falsification tests based on lobbying for financial issues unrelated to mortgage lending and securitization; regressions uncovering a differential effect of lobbying on *ex-ante* lending standards after 2004, when important regulatory changes affecting securitization and loan standards took place; and regressions showing a differential effect of lobbying on *ex-ante* lending characteristics and *ex-post* performance for larger lenders, in line with "too-big-to-fail" arguments.

The results imply that lending behavior is to some extent affected by politics of special interest groups. They provide suggestive evidence that the political influence of the financial industry might have the potential to have an impact on financial stability.[11] However, it should be recognized that it is hard to distinguish whether it is rent-seeking or information-revealing that drives lobbying by the financial industry, hence policy implications should be taken cautiously.

The rest of the paper is organized as follows. Section II discusses the related literature. Section III outlines the empirical strategy. Section IV describes the dataset. Section V presents the results and Section VI concludes.

II. RELATED LITERATURE

Since the pioneering work by Krueger (1974), rent seeking has been identified as a key activity of economic agents in market economies. *Lobbying* – broadly defined as a legal

[10] See, for instance, Van den Steen (2004) for how overoptimism can emerge in a rational framework.

[11] See Johnson (2009) for a similar view.

activity aiming at changing existing rules or policies or procuring individual benefits – is a common form of rent-seeking activity in developed countries.[12] Building upon the private-interest theories of regulation (Stigler, 1971, and Becker, 1983), research on lobbying has developed into two broad strands: studies that focus on the relationship between lobbying activities and specific *policies* (see, for instance, Grossman and Helpman, 1994, Goldberg and Maggi, 1999, and Ludema, Mayda, and Mishra, 2009, for the case of trade policy, Facchini, Mayda and Mishra, 2008, for the case of immigration policy, and Kroszner and Stratmann, 1998, for financial services) and those that aim to explore the consequences of rent-seeking activity by special interest groups for firm-specific economic *outcomes* (see, for example, Bertrand et al., 2004, and Claessens et al., 2008). Issues specific to banking and finance have been studied by, among others, Kroszner and Strahan (1999), who show that special interest theory can explain the design and timing of bank regulation in the U.S.; and Kwahja and Mian (2005), who find that in Pakistan politically-connected firms obtain exclusive loans from public banks and have much higher default rates. Our study, focusing on lobbying and lending behavior, fits more closely in the second strand.

Our paper is also related to the emerging literature on the current crisis. This literature has characterized the evolution of lending standards and the potential contribution of distorted incentives in affecting the supply of credit, but has so far ignored the role of political economy factors. Mayer, Pence and Sherlund (2009) show that subprime lending grew extremely fast between 2001 and 2006, and that no-documentation, no down-payment loans represented a large share of these loans. Mian and Sufi (2008) analyze the contribution of subprime lending to the expansion of mortgage credit and its impact on default rates, and show that the expansion in mortgage credit to subprime zip codes is closely correlated with the increase in securitization, a finding consistent with distorted incentives in mortgage lending. Keys et al. (2009) provide microeconomic evidence of moral hazard associated with securitization of high-cost mortgages. Dell'Ariccia, Igan, and Laeven (2008) provide evidence that areas in which lenders relaxed lending standards more also experienced larger increases in subprime delinquency rates, and that the relaxation of lending standards was associated with the recent entry of large lenders. Regarding the role of short-termism, there is, so far, no consensus on whether distortions in compensation contracts contributed to excessive risk-taking, with some positive evidence (Agarwal and Wang, 2009; Cheng, Hong, and Scheinkman, 2009) being matched by negative evidence (Fahlenbrach and Stulz, 2009).

Overall, there remains scarce evidence in the literature on the political economy of the current financial crisis. Igan and Landoni (2008) study the relationship between anti-predatory lending laws and campaign contributions and show that contributions increase after a law comes into effect. Mian, Sufi and Trebbi (forthcoming) focus on the consequences of

[12] In developing countries, rent seeking by firms is more often performed through personal connections with politicians providing various private benefits to firm owners (Fisman,2001, Johnson and Mitton, 2003, and Faccio and Parsley, 2006), and can materialize through a variety of channels (preferential access to credit, bail-out guarantees, privileged access to licenses, procurement contracts, etc.). Harstad and Svensson (2008) develop a theory of endogenous evolution of corruption and lobbying over the development process: in less developed countries, firms tend to rely on corruption to bend the rules, while, in richer countries, they choose to lobby the government to change the rules.

financial crisis and show that constituent and special interests theories explain voting on key bills in 2008. In contrast to these papers, we study the role of political economy factors in shaping lending standards during the credit boom and their impact on loan outcomes during the crisis.

III. EMPIRICAL APPROACH

In this section, we first lay out some basic relationships between lenders' lobbying and lending to motivate the empirical specification. Next, we describe the empirical strategies employed in the paper.

A. Lobbying and Loan Characteristics

Framework

We consider a simple framework relating lobbying to loan characteristics. A lender i among a set of n lenders can lobby to influence the policymaker or to credibly signal information on the mortgage loan market.[13] A given contribution level $lobbying_i(pol)$ is chosen by lobbyist i to maximize his welfare, taking the contribution schedules of other lobbyists as given, and anticipating that the policymaker chooses the policy *pol* :

$$lobbying_i(pol) = \lambda \cdot B_i + \nu \cdot C_i + \vartheta \cdot lobbying_{-i}(pol) + \gamma \cdot pol + \eta_i \qquad (1)$$

where $lobbying_i$ is either a dummy variable equal to 1 or the lobbying expenditures if a firm lobbies and equal to zero otherwise; the contribution schedules of other lobbyists are summarized in the vector $lobbying_{-i}(pol)$; B_i is a vector of lender-specific benefits of lobbying; C_i is the cost associated with lobbying which we assume to be exogenous and η_i is an error term.[14]

In response to lobbying activities of lenders, the policymaker chooses a policy level that maximizes his welfare.[15] In equilibrium, policy depends on lobbying activities of all agents:

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[13] The basic relationships we present are very general and consistent with the two sets of existing theories of lobbying: (i) common agency theories in which lobbying firms compete for influence over a policy by strategically choosing their contribution to politicians (Bernheim and Whinston, 1986; and Grossman and Helpman, 1994) and (ii) information-based theories in which lobbying firms have better information than the policymakers and partly reveal their information by endogenously choosing their lobbying effort (Potters and van Winden, 1992; Lohmann, 1995; Grossman and Helpman, 2001).

[14] C_i captures the fact that a dollar spent on lobbying may be more or less effective in influencing the policymaker depending, for instance, on political connections of CEOs and of board members, on the choice of the lobbyist hired, or on the geographical proximity to Washington, D.C.

[15] In the Grossman and Helpman (1994) framework, the welfare of the policymaker is a function of political contributions and social welfare.

$$pol = \alpha \cdot lobbying_i + \beta \cdot lobbying_{-i} \quad (2)$$

We assume that characteristics of mortgage loans originated by lender i - including ex-ante characteristics, such as the loan-to-income ratio and the probability of securitization, as well as ex-post characteristics, such as delinquency rates– are related to (i) a set of average borrower characteristics Z_i, (ii) lender characteristics X_i, (iii) policies, and (iv) lobbying expenditures:

$$loan_i = \phi \cdot Z_i + \varphi \cdot X_i + \mu \cdot pol + \delta \cdot lobbying_i + \nu_i \quad (3)$$

where $loan_i$ is a vector of average loan characteristics of lender i, and ν_i is a residual. Combining with equation (2) leads to the following equation in which lobbying is associated with $loan_i$ both directly (δ) and indirectly through changes in policies ($\mu\alpha$):

$$loan_i = \phi \cdot Z_i + \varphi \cdot X_i + (\mu\alpha + \delta) \cdot lobbying_i + \varepsilon_i \quad (4)$$

where ε_i is an error term capturing unobserved factors influencing loan characteristics.[16]

Possible interpretations

Lobbying could be associated with loan characteristics for several reasons. First, lobbying could affect loan characteristics *directly* if lenders lobby the policymaker because they expect preferential treatment – for example, a higher probability of being bailed out in the event of a financial crisis, or a lower probability of scrutiny by bank supervisors (coefficient δ in equations (3) and (4)). This in turn could lead to moral hazard and induce lenders to originate loans that would appear riskier ex ante.[17] Moreover, assuming all else equal, these loans would have a higher probability of default ex post.

In another form of preferential treatment, lobbying buys access to policymakers. Such access could increase lender's franchise value by enhancing its reputation and providing publicity. In that case, however, there is little reason to expect lobbying lenders to make riskier loans and have higher default rates especially if enhancing franchise value is linked to long-term value maximization.

Lobbying could also be *indirectly* associated with loan characteristics through its potential effect on the regulatory environment (coefficient $\mu\alpha$ in equation (4)). Various interpretations, with different implications for the sign of the relationship between lobbying and lending, can be captured through this channel.

[16] Note that lobbying by other lenders is now included in this error term. Endogeneity concerns that may be introduced by this are addressed in the econometric analysis.

[17] See Tressel and Verdier (2009) for a model of political connections of banks emphasizing this moral hazard channel.

- Lenders lobby to prevent a tightening of lending laws that may reduce the benefits associated with short-termist strategies emphasizing short-term gains over long-term profit maximization. Such a moral hazard motivation for lobbying would result in more risk-taking ex ante and worse performance ex post.

- Owing to a genuine and systematic underestimation of default probabilities, overoptimistic lenders could lobby to prevent a tightening of lending laws, and ,would take more risks ex ante and experience higher default rates ex post, holding everything else equal.

- Lenders specializing in risky market segments may lobby to signal their superior information on lending opportunities, thereby preventing tighter regulation that would limit growth in these segments. Then, lobbying lenders would originate loans that appear to carry more risk, but, holding other factors constant, these loans would not be expected to underperform other lenders' loans *ex-post*. However, if one assumes that the risky segments are disproportionately hit harder by shocks, one could expect to observe worse performance of specialized lender loans.

- Lenders that are able to benefit from lax regulations of mortgage lending – possibly because they are better at screening borrowers – would simultaneously lobby against bills aiming at tightening lending laws and choose seemingly more lax lending standards than other lenders. In that case, they may appear to originate riskier loans but *ex-post* outcomes would not necessarily be worse if these "good" lenders account for the risks properly.

- It is also possible that lenders lobby to tighten regulations, rather than to relax them, in order to restrict entry by others, that is, to prevent competition. Then, one would observe lobbying lenders adopting safer lending strategies, not riskier ones. Hence, there would be little reason to expect these loans to be of lower quality ex post.

- "Bad" lenders may mimic the lobbying behavior of good lenders to fool the policymaker or because they have a higher probability of being in need of preferential treatment owing to lower capacity to manage and absorb risk when hit by a shock. In this case, intensive lobbying activity would be associated with riskier loans ex ante and worse outcomes ex post.

In sum, an association between lobbying behavior and loan characteristics could arise for a variety of reasons (see text table for a summary). The sign of the estimated coefficient between lobbying and loan characteristics could, however, help discriminate between some of these possible interpretations.

Expected Signs of the Relationship between Lobbying and Lending

Sign ex ante	Sign ex post	Interpretation	Examples
+	+	Preferential treatment	bail-out, lower scrutiny
		Short-termist lenders	focusing on loan origination fees
		Overoptimistic lenders	underestimate probability of default
		"Bad" lenders	inferior screening, underwriting, knowledge of the state of the world
+	+/-	Specialization in riskier segments	subprime borrowers
+	-	"Good" lenders	better screening, underwriting, knowledge of the state of the world
-	-	Entry prevention	incumbent lenders favoring tighter regulation to shut down competition
		Franchise value	access to policymakers to enhance reputation

Notes: Ex ante, + (-) denotes lobbying being associated with higher (lower) risk taking. Ex post, + (-) denotes lobbying being associated with worse (better) outcomes.

B. Empirical Specifications

Our empirical strategy consists of alternative specifications based on equation (4). First, we analyze the relationship between lobbying and the ex-ante characteristics of loans originated (the loan-to-income ratio; the proportion of loans sold; the growth rate of loans originated). Second, we explore the relationship between lobbying and ex-post loan outcomes (delinquency rates; stock returns during the crisis). Endogeneity concerns are addressed through falsification tests, instrumental variables, and difference-in-difference strategies.

Ex-ante loan characteristics

First, we estimate the following panel equation:

$$y_{imt} = \alpha + \beta \cdot l_i + \lambda \cdot Z_{imt} + \nu_m + \pi_t + \nu_m * \pi_t + \varepsilon_{imt} \quad (5)$$

where y_{imt} is a measure of loan characteristics for lender i, in MSA m during year t. l_i is a dummy for lenders that lobby the *federal* government for specific issues related to consumer protection in mortgage lending and securitization.[18] Z_{imt} denotes a set of control variables at the lender-MSA level. ν_m and π_t denote a set of MSA and year fixed effects respectively. $\nu_m * \pi_t$ captures the effect of all MSA-time varying factors, which are constant across lenders. The parameter of interest is β, which captures time-invariant differences in mortgage loan characteristics between lenders that lobby and lenders that do not lobby. Second, we estimate the following panel equation:

$$y_{imt} = \alpha + \delta \cdot (\ln LOBAM)_{it-1} + s_i + \nu_m + \pi_t + \nu_m * \pi_t + \lambda \cdot Z_{imt} + \varepsilon_{imt} \quad (6)$$

[18] Note that lobbying activities are reported at the lender-level and do not vary across MSAs. See Section IV for details.

where outcome variables are the same as in equation (4), $(\ln LOBAM)_{it-1}$ is the logarithm of the amount of lobbying expenditures by lender i during year $t-1$.[19] s_i denotes a set of lender fixed effects which capture the effect of all lender-specific time-invariant loan characteristics. The preferred specification includes lender, MSA, year effects and MSA*year interactions; lobbying expenses only change at the lender-year level and there is little reason to expect a lender's lobbying at the national level to impact its lending behavior differently from one MSA to the other, hence lender*year and lender*MSA interactions are not included. The effect of lobbying on lending behavior is identified based on the within-lender correlation over time between lobbying expenditures and loan characteristics.

Our main variable capturing ex-ante characteristics is the loan-to-income ratio (LIR) averaged at the lender-MSA level. This measure is a simplified version of a commonly used indicator, debt-to-income ratio, to determine whether a borrower can afford a mortgage loan. Lenders usually require that mortgage payments cannot exceed a certain proportion of the applicant's income.[20] As the maximum proportion allowed increases, the burden of servicing the loan becomes harder and the default probability potentially increases. We compute the LIR as a proxy for such limits required by the lender and interpret increases in this ratio that are not explained by lender and location characteristics or time fixed effects as a loosening in lending standards.

In addition, we use as alternative dependent variables (i) the proportion of mortgages securitized and (ii) annual growth rate in the amount of loans originated. Recourse to securitization is considered to weaken monitoring incentives; hence, a higher proportion of securitized loans can be associated with lower credit standards (see Keys et al, 2009, for evidence that securitization leads to less monitoring and worse loan performance). Next, fast expansion of credit could be associated with lower lending standards for several reasons. For example, if there are constraints on training and employing loan officers, increased number of applications will lead to less time and expertise allocated to each application to assess their quality (see Berger and Udell, 2004). Or, in a booming economy, increasing collateral values will increase creditworthiness of intrinsically bad borrowers and, when collateral values drop during the bust, these borrowers are more likely to default (see Kiyotaki and Moore, 1997). Alternatively, competitive pressures might force lenders to loosen lending standards in order to preserve their market shares.

Ex-post performance

To evaluate ex-post loan performance, we analyze delinquency rates in 2008 and abnormal stock returns during key events of the financial crisis.

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[19] $LOBAM$ is assumed to be equal to \$1 when a lender does not lobby.

[20] See, for instance, Sirota (2003).

Delinquency rates

Our data on delinquency rates are at the MSA level (see Section IV); so we relate this variable to the growth of lobbying lenders' market share in the MSA during 2000-06. This variable measures the expansion of mortgage loans by lobbying lenders *relative to* the expansion of such loans by all lenders during the period of interest.[21] Specifically, we estimate the following cross-sectional empirical model:

$$dr_{m,2008} = \alpha + \theta \cdot \overline{gmsh}_m + \mu \cdot X_m + \eta \cdot Z_m + \varepsilon_m \quad (7)$$

where $dr_{m,2008}$ is the MSA level delinquency rate as of 2008, $\overline{gmsh}_m$ is the average annual growth rate of the total market share of lobbying lenders in the MSA over 2000-06, X_m is a set of MSA characteristics and Z_m is a set of mortgage loan characteristics and lender characteristics averaged at the MSA level. The coefficient of interest θ captures the partial correlation between delinquency rates and the growth rate of mortgage lending by lobbying lenders relative to non-lobbying competitors.

Event study

We conduct an event study analysis on stock returns of lobbying lenders following key dates of the financial crisis. We follow the methodology developed in recent studies assessing the value of political connections (Fisman, 2001; Faccio, 2005; and Fisman et al., 2006). Specifically, we perform an event study around dates of major events of the financial crisis and ask whether lenders who lobbied on the specific issues related to mortgage lending and securitization experienced abnormal stock market returns during the month the event took place.[22]

We consider the following empirical specification:

$$R_{ie} = \alpha + \beta \cdot l_i + \gamma \cdot X_i + \varepsilon_i \quad (8)$$

where R_{ie} is the ex-dividend monthly return on firm i's stock over the event period e, l_i is a dummy for financial institutions that lobby on the specific issues, X_i is a set of control variables, and ε_i is a residual.[23] In addition to the simple stock return, we consider two

[21] The growth of the market share is equal to the growth of credit by lobbying lenders divided by the total growth of credit in the MSA.

[22] There exists a key difference with the approach of these papers that quantify the value of political connections. They conduct the event study around periods of news under the assumption that these news *a priori* specifically affect politically connected firms only, while other firms should not be directly impacted, and confirm the initial hypothesis. In our case, however, all firms are *a priori* potentially affected by the market news, but we show that the effect of news on market value varies systematically across financial intermediaries according to lobbying behavior in a direction that is consistent with our hypothesis.

[23] Monthly stock returns are computed from the end of the previous month to the end of the month considered.

measures of abnormal returns: (i) the mean-adjusted return, defined as the stock return of firm i adjusted for its mean over 2007-08; (2) the market- and risk-adjusted return defined as the stock return adjusted for the predicted return based on the CAPM.[24]

We consider major events of the crisis related to the pressure in short-term funding markets in 2007 and the collapse of major investment banks exposed to subprime products in 2008. The event dates are: (i) August 1-17, 2007 (ECB injection of overnight liquidity in response to problems in French and German banks); (ii) December 12, 2007 (coordinated injection of liquidity by major central banks to address short-term funding market pressures); (iii) March 11-16, 2008 (JP Morgan acquires Bear Stearns after Fed provides $30 billion in non-recourse funding; Fed expands liquidity provision); and (iv) September 15-16, 2008 (Lehman Brothers files for bankruptcy while AIG is bailed out).

Endogeneity

A potential problem is that the decision to lobby may be endogenous, in particular, as a result of omitted variables that are correlated with both loan characteristics and performance and the decision to lobby. For instance, lobbying lenders may have expanded credit faster in areas that experienced higher delinquency rates as a result of unobserved characteristics of their pool of borrowers during the boom period. In addition, there might be reverse causality, for example, lenders lobby because they originate risky loans under lax regulations and want to prevent tightening of laws.[25]

To address these concerns, and help interpret our results, we implement several empirical strategies, in addition to including fixed effects. First, we use *falsification tests* based on lenders' lobbying on financial sector issues *unrelated* to those we identified as being crucial for the mortgage market (see Data Description). These tests provide evidence that lobbying in general is not a proxy for unobserved lender characteristics.

Second, we make use of *difference-in-difference estimations* exploiting state-level variation in lending laws to uncover whether the existence of anti-predatory lending laws at the state level have differential effects on the mortgage lending behavior of financial intermediaries that lobby relative to those that do not lobby.[26, 27] The hypothesis is that lobbying lenders

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[24] The market- and risk-adjusted return is defined as: $Abnormal\_return_{ie} = R_{ie} - K_{it}$ where $K_{it} = a_i + b_i \cdot R_{mt}$ where a_i and b_i are firm-specific coefficients estimated over 2007-08, and R_{mt} is the market return (proxied by the return on the stock market index of banks in the S&P500).

[25] Endogeneity concerns are mitigated by the fact that lending conditions in specific MSAs are unlikely to drive lobbying efforts at the national level.

[26] Keys et al. (2009) use a similar identification strategy based on state lending laws in their analysis of securitization and monitoring incentives.

[27] A potential concern is that state lending legislation efforts are likely to be affected by the financial industry's overall lobbying activities, however, lobbying at the *federal* level is less likely to influence any individual

(continued…)

were originating riskier loans than other lenders in the absence of anti-predatory lending laws. Therefore, when a law comes into effect at the state level they will tighten their loan terms more than other lenders to meet the minimum legal requirements. We estimate the following difference-in-difference panel equation:

$$y_{imt} = \alpha + \beta.APL_{st} + \delta \cdot (\ln LOBAM)_{it-1} + \phi \cdot (\ln LOBAM)_{it-1} \cdot APL_{st} + \gamma \cdot X_{mt} + \lambda \cdot Z_{imt} + s_i + v_m + \pi_t + \varepsilon_{imt} \quad (10)$$

APL_{st} is a dummy equal to one if there exists an anti-predatory lending law in state s, where MSA m is located, at time t.[28] X_{mt} denotes a set of MSA-year varying controls. In regressions *without* lender fixed effects, the treatment group includes all lenders located in states without anti-predatory lending laws. In regressions *with* lender fixed effects, the control group includes the branches and subsidiaries of the same lender located in states that have not yet implemented anti-predatory lending laws and the treatment group comprises those that are located in states that have already implemented such laws. Hence, the control and treated groups are a priori very similar among many dimensions, including organizational and technological efficiency.

Third, we adopt an *instrumental-variables strategy* based on components of the cost of lobbying that do not directly affect loan characteristics and outcomes. Our instrument is the distance between a lender's headquarters and Washington, D.C. combined with other variables described in Section V. Finally, we apply *Generalized Method of Moments* (GMM) using lags of explanatory variables as internal instruments in addition to the external instrument.

IV. DATA DESCRIPTION

A. Mortgage Lending

Mortgage lenders are required to provide detailed information on the applications they receive and the loans they originate under the Home Mortgage Disclosure Act (HMDA). Enacted by Congress in 1975, HMDA data covers a broad set of depository and no depository financial institutions. Comparisons of the total amount of loan originations in the HMDA and industry sources indicate that around 90 percent of the mortgage lending activity is covered by the loan application registry. Our coverage of HMDA data is from 1999 to 2007 to match the lobbying database.

We collapse the data to MSA-lender level with 378 MSAs and almost 9000 lenders. Then, we construct our variables of interest: loan-to-income ratio at origination, loan securitization

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state's decision to pass a law. Moreover, what we are interested in is the differential response of lobbying versus non-lobbying lenders to the regulatory changes once a law comes into effect.

[28] In some cases, a single MSA contains areas in several states. Then we assume that the MSA has a law in place if any one of the states does.

rates, mortgage loan growth rate, and the extent of lending activity by lobbying lenders at the MSA level.

B. Lobbying

Lobbyists in the U.S. - often organized in special interest groups - can legally influence the policy formation process through two main channels. First, they can offer campaign finance contributions, in particular through political action committees (PACs). These activities have received a fair amount of attention in the literature.[29] Second, they are allowed to carry out lobbying activities in the executive and legislative branches of the federal government. These lobbying activities, albeit accounting for about 90 percent of lobbyists' expenditures (Table 1a), have in contrast received scant attention in the literature. Individual companies and organizations have been required to provide a substantial amount of information on their lobbying activities starting with the introduction of the Lobbying Disclosure Act of 1995. Since 1996, all lobbyists (intermediaries who lobby on behalf of companies and organizations) have to file semi-annual reports to the Secretary of the Senate's Office of Public Records (SOPR), listing the name of each client (firm), the total income they have received from each of them, and specific lobbying issues. In parallel, all firms with in-house lobbying departments are required to file similar reports stating the *total* dollar amount they have spent (either in-house or in payments to external lobbyists). Legislation requires the disclosure not only of the dollar amounts actually received/spent, but also of the issues for which lobbying is carried out. Thus, unlike PAC contributions, lobbying expenditures of companies can be associated with very specific targeted policy areas. Finally, the reports must also state which chamber of Congress and which executive departments or agencies were contacted. Such detailed information is reported by roughly 9000 companies, around 600 of which are in the finance, insurance and real estate (FIRE) industry.

C. Other Data

We supplement the information from the lobbying and HMDA databases with MSA-level and state-level data on economic and social indicators such as income, unemployment, population, and house price appreciation.[30] We also obtain data on delinquent loans from LoanPerformance, a private data company. The stock price return is computed using data from Compustat. Finally, information on the enactment of anti-predatory lending laws is from Bostic et al (2008).[31]

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[29] See, for instance, Snyder (1990), Goldberg and Maggi (1999), Gawande and Bandyopadhyay (2000).

[30] Data sources include the Bureau of Economic Analysis (BEA), the Bureau of Labor Statistics (BLS), the Census Bureau, and the Office of Federal Housing Enterprise Oversight (OFHEO).

[31] North Carolina was the first state to pass an anti-predatory lending law in 1999 and other states followed suit. By 2007, all but six states have some form of anti-predatory lending law in place. The following states, with the date of passage in parentheses, have laws that use triggers to define a class of loans eligible for restrictions and disclosures, following the lead of Home Ownership and Equity Protection Act at the federal level: Arkansas (2003), California (2002), Colorado (2003), Connecticut (2001), Florida (2002), Georgia (2002), Illinois (2004), Indiana (2004), Kentucky (2003), Maine (2003), Maryland (2002), Massachusetts (2001), Nevada (2003), New Jersey (2003), New Mexico (2004), New York (2003), Ohio (2002), Oklahoma (2004), Pennsylvania (2001),

(continued…)

D. Construction of the Regressions Dataset

Matching Lobbying Firms to Lenders

The matching of the lobbying and HMDA databases is a tedious task that was performed in several steps (see Appendix). We use an algorithm that finds potential matches in HMDA of lenders in the lobbying database by searching for common words in the name strings. After the algorithm narrows down the potential matches of lobbying firms among the HMDA lenders, we go through the list one by one to determine the right match. Finally, we examine meticulously the corporate structure of the firms that appear in the lobbying database and that might be matched to particular HMDA lenders based on our algorithm. We create four lobbying identifiers reflecting several types of matches: (i) exact matches; (ii) matches to parent firm; (iii) matches to affiliated firms; and (iv) matches to subsidiaries. The lobbying variables used in the regressions combine these four variables.[32]

Identifying Lobbying Activity Targeted to the Mortgage Market

For identification purposes, it is important to distinguish between lobbying activities that are related to mortgage-market-specific issues from other lobbying activities. We first concentrate only on issues related to the five general issues of interest (accounting, banking, bankruptcy, housing, and financial institutions) and then gather information on the specific issues, which are typically acts proposed at the House or the Senate, that were listed by the lobbyists as the main issue for the lobbying activity.[33] Then, we go through these specific issues one by one and determine whether an issue can be directly linked to restrictions on mortgage market lending. For example, H.R. 1163 of 2003 (Predatory Mortgage Lending Practices Reduction Act) and H.R. 4471 of 2005 (Fair and Responsible Lending Act), regulating high cost mortgages, are bills that we deem to be relevant to mortgage market lending. On the other hand, H.R. 2201 of 2005 (Consumer Debt Prevention and Education Act) and the Sarbanes-Oxley Act of 2002, although in general related to financial services, do not include any provisions directly related to mortgage lending and are not classified as mortgage-market-specific issues. After classifying all listed issues, we split the total lobbying expenditure by a lender into lobbying expenditure on specific and non-specific issues. In order to estimate lobbying expenditures associated with specific issues, we split

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South Carolina (2004), Texas (2001), Utah (2004), Washington, D.C. (2003), and Wisconsin (2004). Other states have laws that are more general in scope in the sense that they do not focus on high-cost or subprime loans and do not use triggers. These include Idaho, Michigan, Minnesota, Mississippi, Nebraska, New Hampshire, Oregon, Tennessee, Washington, and West Virginia.

[32] We also consider lobbying expenditures by associations. The list of member firms for each association in the lobbying database is compiled by going on each association's website. A portion of the associations' lobbying expenditures is assigned to each member firm based on the share of its own spending in the total of all members. Augmenting the lobbying variable with these expenditures does not change the results.

[33] 'General issue area codes' are provided by the SOPR and listed in line 15 while the 'specific lobbying issues' are listed in line 16 of the lobbying reports. See Appendix for more details on what the reports look like and a full list of general issues as well as that of specific issues selected for the analysis.

lobbying expenditures evenly across issues. To be more specific, we first divide the total lobbying expenditure by the number of *all* general issues and multiply by the number of general issues selected. Then, we divide this by the total number of specific issues listed under the five general issues and multiply by the number of specific issues of interest.[34]

E. Summary Statistics

As shown in Table 1a, between 1999 and 2006, interest groups have spent on average about $4.2 billion per political cycle on targeted political activity, which includes PAC campaign contributions and lobbying expenditures. Lobbying expenditures represent by far the bulk of all interest groups' money spent on targeted political activity (close to 90 percent). Expenditures by FIRE companies constitute roughly 15 percent of overall lobbying expenditures in any election cycle. Approximately 10 percent of all firms that lobbied during this time period were associated with FIRE.

Lobbying in the FIRE industry seems to be more prominent than it is in other industries. Figure 1 shows data on lobbying intensity (defined as lobbying expenditures per firm) by sector. Firms lobbying in the FIRE industry spent approximately $479,500 per firm in 2006 compared to $300,273 per firm in defense or $200,187 per firm in construction. Moreover, as shown in Figure 2, the lobbying intensity for FIRE increased at a much faster pace relative to the average lobbying intensity over 1999–2006. Finally, Table 1b shows that lobbying by financial intermediaries on issues related to mortgage lending and securitization totaled $475 million during 1999-2006 ($161 million was spent in 2005 and 2006 alone). Lobbying expenditures by lenders' associations remained comparatively small ($76 million during 1999-2006).

Similar inspection of the HMDA database reveals time trends indicating higher LIR and increased recourse to securitization (Figures 3 and 4). Our matching process ends up matching around 250 firms in the lobbying database to one or more lenders in the HMDA database, corresponding to roughly 40 percent of FIRE firms that lobby and 3 percent of HMDA lenders. In the final MSA-lender level dataset we use in the empirical analysis, the lenders that lobby comprise around 13 percent of the observations, reflecting the fact that lobbying lenders tend to be larger and/or more geographically diverse than those that do not lobby. In 2006, roughly 13 percent of lender-MSA pairs lobbied; and about 9 percent lobbied on regulations related to mortgage lending and securitization. Summary statistics on the variables used in the empirical analysis and the match rates are shown in Table 2. As a first impression, the only significant difference between lobbying lenders and the other lenders is that the former are typically much larger (in terms of assets) than the latter.

[34] For robustness, we adopt an alternative splitting approach that distributes expenditures using as weights the proportion of reports that mention the specific issues of interest. The results remain the same.

V. RESULTS

A. Empirical Analysis of Loan-to-Income Ratio

Table 3 presents the fixed-effects regression results based on equation (5) of the LIR of originated loans on a dummy variable for lenders lobbying on specific issues. The coefficient on this dummy variable is positive and statistically significant at the 1 percent level in all regressions. Loans originated by lenders lobbying on specific issues have higher LIR on average. This finding remains unaffected when controlling for observable MSA (column (2)) and lender-MSA characteristics (column (3)). Lender-MSA level control variables ensure that the estimated coefficient on the dummy for lobbying lenders does not reflect characteristics such as the size of the lender (proxied by log of assets), the market power of the lender in a particular MSA (proxied by its market share), or other factors proxying for observable and unobservable characteristics of a lender's pool of applicants such as (i) whether the lender focuses on community development mortgages or has a brokerage-type business model (proxied by a dummy for HUD-regulated lenders), (ii) whether the lender specializes in subprime lending, and (iii) the average income of applicants of loans originated by the lender in a particular MSA. Moreover, the size of the coefficient increases as control variables are added to the regression suggesting that omitted variables at the MSA level and at the lender-MSA level may have resulted in attenuation bias.[35] Adding MSA, year, and cross MSA-year fixed effects does not affect the magnitude or the significance of the estimated coefficients (columns (4) to (7)). This set of fixed effects confirm that our results do not reflect unobserved, either time-invariant or time-varying MSA characteristics, or time effects common to all MSAs. Importantly, MSA-year interactions in column (6) guarantee that the estimated effect is not biased due to, for example, the average quality of the pool of applicants at the MSA level.

The magnitude of the effect is not trivial. The estimated coefficient of 0.14 implies that the average LIR of mortgages originated is about 0.14 points higher for lobbying lenders than for other lenders. This is about 7 percent of the average LIR of 1.97 in the complete sample.

Table 4 reports regressions of LIR on lobbying expenditures. The coefficient on the lobbying amount is positive and significant at a 1 percent level for various sets of fixed effects and control variables. The advantage of using the level of lobbying expenditures relative to the dummy in Table 3 is that the time variation in lobbying amounts allows us to introduce lender fixed effects, and therefore to identify the coefficient of interest on the *within* dimension, in contrast to the results of Table 3 in which the coefficient of interest reflects systematic differences *between* firms. In specifications including lender fixed effects (columns (3) to (5)), the coefficient of interest therefore reflects a correlation over time between the LIR and the lobbying amounts for lobbying lenders only. Hence, any time-invariant lender-specific factors – such as a superior screening technology -affecting both the decision to lobby and lending standards are absorbed by the lender fixed effects. Another

[35] Standard errors are robust to heteroskedasticity and clustered at the lender-MSA level to correct for serial correlation.

source of concern is that there may be shocks common to all lenders and we address this concern by introducing time dummies. Columns (2) to (5) show that the coefficient remains significant. Furthermore, columns (4) and (5) include MSA*year interactions controlling for time-varying local conditions faced by lenders.[36]

The range of estimated coefficient suggests that a one standard deviation rise in lobbying expenditures is associated with a 0.02-0.11 points rise in LIR. This constitutes 1-5 percent of the average LIR of 1.97 in the complete sample.[37]

B. Falsification Tests

The estimated relationship between LIR and the lobbying decision may capture omitted factors that affect both the decision to lobby and the characteristics of loans originated. If the results are driven by omitted factors affecting the decision to lobby on financial sector issues in general, we would expect to obtain a similar result for lenders that lobby on financial sector issues that are *unrelated* to mortgage lending. To carry out the falsification exercise, we create a dummy variable for lenders lobbying on issues that are *not* related to mortgage lending and securitization, e.g., consumer credit and security of personal information, financial services other than mortgage lending, deposit insurance, anti-money laundering, etc. We repeat the regressions presented in Table 3 by adding the new dummy. Table 5 displays the results. We find that the dummy for lobbying on specific issues has a positive and significant coefficient while the dummy for lobbying on *other* issues has a negative and significant sign. These falsification tests further support the interpretation that the relationship between lobbying and mortgage lending behavior is not coincidental and is unlikely to be driven by omitted characteristics.

C. Difference-in-Difference Estimations

We exploit the state-level and time-level variation in the existence of anti-predatory lending laws to uncover whether laws being in place have a differential effect on the mortgage lending behavior of lobbying lenders relative to those that do not lobby. As shown in Table 6, the coefficient on the interaction term between the dummy for an anti-predatory lending law and lobbying intensity is negative and significant at the 1 percent level in columns (2)-(4). This result is consistent with the hypothesis that lobbying lenders, at the margin, raise their lending standards more than other lenders, when anti-predatory lending laws are in

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[36] We conduct further robustness tests on the following: (i) clustering at MSA-level, (ii) exclusion of outliers, (iii) alternative split of total expenditures into specific and non-specific issues, (iv) using lobbying expenditures scaled by assets, (v) taking into account lobbying expenditures by bankers' associations and, (vi) an alternative measure of lobbying expenditures, which are scaled by the importance of the law and regulations for which the firm lobbies, giving higher weight to lobbying for laws which appear more often in the lobbying reports. The main result that higher lobbying activity is associated with higher LIR remains unaltered (see Table A4 in the Appendix).

[37] For a 10 percent increase in $LOBAM$, the outcome variable changes by $dy_{imt} = \delta * d \ln LOBAM_{imt-1} = \delta * \ln(LOBAM_{imt-1} / LOBAM_{imt-2}) \approx \delta * 0.1$.

place, according to the general formulation of equation (7). The result is robust to including lender, MSA and year fixed effects, and when we control for MSA-time, lender-time or lender-MSA-time level observable characteristics. In addition, the overall effect of an anti-predatory lending law being in place, evaluated at the average lobbying expenditures in the sample, is $\beta + \phi \cdot (\overline{\ln LOBAM}) < 0$. This suggests that LIR is lower in MSAs that belong to states with anti-predatory lending laws in place.

D. Instrumental Variable Regressions and GMM

To further address endogeneity concerns, we develop an instrumental variable strategy. As discussed earlier, the concern is that lobbying on issues specific to mortgage lending may be correlated with unobserved lender-time or lender-MSA-time varying loan characteristics, which could bias our estimates. The within lender estimations reported in Table 4 partially address endogeneity bias, but only if the unobserved lender characteristics do not vary over time.

To address the identification issue in the regressions with lender fixed effects, we need an instrument that is both lender-specific and time-varying. The instrument we consider is a proxy for the cost of lobbying, which is likely to be correlated with lobbying and can arguably be assumed not to affect lending other than through lobbying. First, we construct the lender-specific component. A number of papers have shown that distance affects financial decisions both within countries (Petersen and Rajan, 1995), and across countries (Mian, 2006). Following this literature, we hypothesize that the cost of lobbying is an increasing function of the distance between the headquarters of a financial institution and Washington, D.C., and consider this distance as the first exogenous component of the cost of lobbying. Second, a time-varying component of the cost of lobbying is given by the rest of the world purchases of U.S. Treasury securities from the Flow of Funds Accounts published by the Federal Reserve. The idea underlying the instrument is that when capital inflows are high, the cost of capital (and the return on capital) is low, and therefore the opportunity cost of lobbying is low. Importantly, we expect neither the lender-specific nor the time-varying component of the instrument to be correlated with the unobservable determinants of lending.[38] We multiply these two variables to obtain an instrument that is both lender-specific and time-varying.

Table 7 shows that the coefficient on lobbying expenditures remains highly significant in the second stage of the 2SLS when it is instrumented. However, the size of the coefficient increases dramatically which suggests that, indeed, the OLS estimate is biased downward. Table 7 also reports the first stage and suggests that the instrument is strong. The first-stage F-statistic is very high, with the p-value for the test of significance of excluded instruments

[38] In recent years, a majority of foreign purchases of new issues of U.S. Treasury securities were central banks, with motives a priori unrelated to the characteristics of the U.S. mortgage market. The distance to Washington, D.C. is also predetermined and unlikely to be related to developments in the mortgage market in the sample period.

equal to 0. The correlation between the instrument and the endogenous variable reflects the positive time-series relationship between lobbying expenditures and capital inflows.

Table 8 reports the results from system GMM estimations. Lagged levels of lobbying expenditures (in addition to the external instrument in Table 7) are used as instruments in the difference equation whereas lagged differences are used in the level equations. Columns (1)-(5) implement the system GMM using alternative number of lags as instruments. The results support the finding that increase in lobbying expenses is associated with higher LIR. The estimated coefficient is statistically significant at the one percent level in all the specifications. The magnitude of the coefficient is higher than in Table 4, suggesting a negative correlation between the unobserved component of LIR and lobbying expenses in the OLS. Importantly, in all specifications, the Hansen's test for overidentifying restrictions passes at the one percent significance level and the null hypothesis of no two-period serial correlation in the residuals cannot be rejected.

E. Evidence on Lobbying and Securitization and Mortgage Credit Growth

As discussed in Section III, the proportion of mortgage loans that are securitized is another potentially important indicator of the quality of mortgages originated by financial institutions. Table 9 shows that the proportion of mortgage loans securitized is positively correlated with lobbying expenditures within lenders. The result is robust to the inclusion of lender, MSA and year fixed effects and MSA*year interactions. In columns (4)-(6), we also show that the results are robust to instrumenting the lobbying variable.

A fast expansion of mortgage credit could also be associated with lower lending standards for reasons discussed in Section III. Table 10 shows that lobbying is positively correlated with the growth of mortgage loans. This result is significant at the 1 percent level in both the fixed effects and IV specifications, suggesting that lobbying lenders, through faster expansion of their mortgage loan portfolios, tend to lend more aggressively and potentially take bigger risks.

F. Lobbying and Delinquency Rates

So far, the evidence suggests that there exists a strong link between lobbying on issues related to mortgage lending and the characteristics of loans originated. In this section, we analyze the relationship between the relative growth of mortgage loans of lenders who lobby on the specific issues we identified and the ex-post average delinquency rate at the MSA level as of 2008, based on specification (7).[39] We follow a conservative approach by clustering the error terms at the state level.

[39] Note that we have information on delinquency rates only at the MSA level. The lobbying variable on the other hand exists only at the lender level, hence we analyze the effect of market share in an MSA of lenders that lobby on delinquency rates.

Regression results reported in Tables 11a and 11b show that delinquency rates in 2008 are significantly higher in MSAs in which mortgage lending by lobbying lenders has expanded relatively faster than mortgage lending by other lenders. This result is robust to (i) the inclusion of various MSA-level characteristics, including characteristics of the mortgage lending market such as the share of subprime loans and the number of lenders, (ii) the inclusion of state fixed effects to control for state-specific unobserved factors, and (iii) the exclusion of states in which the housing boom-bust cycle was more severe (California, Florida, and Nevada) to ensure that mortgage market outcomes of these three states are not driving the results. The estimated effect is economically significant: a one standard deviation increase in the relative growth of mortgage loans of lobbying lenders is associated with almost a 1 percentage point increase in the delinquency rate.

To address endogeneity concerns, we perform two tests. First, as in the analysis of loan characteristics, we make use of a falsification test to show that expansion of mortgage lending by lobbying firms does not merely reflect unobserved lender characteristics correlated with lobbying activities in general. We find no statistically significant relationship between delinquency rates and the relative expansion of mortgage lending by lenders that lobbied on financial issues unrelated to securitization or consumer protection in mortgage lending. This suggests that lobbying by financial institutions is unlikely to be a general proxy for specific unobserved lenders' characteristics that could be systematically correlated with delinquency rates (columns (4) and (5) in Table 11a).

Second, we develop an instrumental variable strategy to further address such omitted factors bias. As a first instrument, we consider the sum of the 1998 market share in the MSA of lenders who lobbied on specific issues, in which each lender's initial market share is weighted by the distance between each lender's headquarters and Washington, D.C. This instrument is valid if (i) the initial presence of a lender in a MSA is predetermined and is not correlated with the lending conditions that prevailed in this MSA in the following years; (ii) the distance between a lender's headquarters and Washington, D.C. – a proxy for certain costs of lobbying – is uncorrelated with lending conditions in any specific MSA. The correlation between this instrument and the endogenous variable is negative potentially reflecting that a smaller initial market share coupled with low cost of lobbying results in faster subsequent growth of lobbying lenders in that area. We consider a second instrument defined in a similar way (initial market share weighted by the distance variable), but using instead the initial market share of lenders lobbying on financial sector issues that are not related to securitization and mortgage lending. The sign of the correlation between the instrument and the endogenous variable is positive probably because, in MSAs in which these other lenders have a larger initial presence, lenders lobbying on our issues of interest may intensify their lending activities and gain market share even more when these other lenders have a higher cost of lobbying.

Regression results are reported in Table 11b, and confirm the conclusions of our OLS estimations. When instrumenting the variable of interest, the coefficient increases significantly, suggesting that there might be an attenuation bias in the OLS estimates. In regressions combining the two instruments, the Hansen J tests accept the validity of the instruments. Furthermore, to allay concerns of weak instrument bias, we also make use of

LIML estimator known to be more robust to weak instrument bias and confirm the 2SLS results.

G. Stock Price Returns during the Crisis

We conduct an analysis of financial institutions' stock returns during major market events of the financial crisis to investigate the relationship between lobbying activities and ex-post lender stock price performance during the financial crisis. This analysis provides suggestive evidence on the perceived *ex-post* value of lobbying lenders portfolios during the financial panics of 2007 and 2008. In particular, we would not expect to find any significant abnormal returns if lobbying was not systematically related to the quality of mortgage loans originated by the lenders. Regression results are reported in Table 12. Our analysis indicates that financial institutions that lobbied on specific issues experienced negative abnormal returns during the major events of the financial crisis suggesting that these financial institutions were significantly more exposed, directly or indirectly, to bad mortgage loans.

The coefficient of interest is statistically significant at conventional levels in all the specifications. Moreover, the estimated effect is very large. Using the estimated coefficient for the market and risk adjusted returns, lobbying financial institutions lost on average 6.7 percent more in value during the 2007 events than other financial institutions; and 16.6 percent more in value during the 2008 events. The differential loss of value is even more impressive during the Lehman failure: a 27 percent additional loss of value when returns are adjusted for the market correlation. The results suggest that these financial institutions were significantly more exposed to bad mortgage loans than other financial institutions.

Interestingly, the coefficient on the subprime lender dummy is insignificant in most regressions - and even positive in one specification – suggesting that the estimated coefficient does not merely reflect the effect of a specialization of the lender considered. Another proxy for specialization – the log of mortgage loans originated in proportion to total assets – does not alter our coefficient of interest, even though it has the expected negative sign.[40] We also control for the log of assets of the lender as a proxy for size, but find no significant effect on abnormal stock returns.

H. Discussion of Results

To summarize, lobbying is associated *ex ante* with more risk-taking as measured by higher LIR, higher securitization and faster credit expansion. In addition, there is evidence that delinquency rates are higher in areas in which lobbying lenders expanded their mortgage lending more aggressively, and that these lenders had more negative abnormal returns during the key events of the financial crisis.

Taken together, these results are consistent with several of the explanations discussed in Section III. These include expectations of preferential treatment (e.g. a higher probability of

[40] This variable is constructed for the year 2006.

being bailed out in the event of a financial crisis) or the desire to exploit high short-term gains associated with riskier lending strategies. Both bail-out and short-termism stories involve moral hazard elements. One piece of evidence supporting this story is that we find a stronger correlation between lobbying and *ex-ante* loan characteristics as well as *ex-post* performance for the largest lobbying lenders. Table 13, columns (1) and (2) show that the correlation between lobbying and LIR and between lobbying and proportion of loans sold is indeed stronger for lenders in the top quartile in terms of assets. Column (3) confirms that a similar result obtains for the relationship between the growth of the market share of lobbying lenders and ex-post delinquency rates. When the growth of market share for the subset of large lobbying lenders is introduced as an additional variable, the estimated relationship is even stronger.

Although other explanations without such elements cannot be ruled out, they tend to be somewhat less consistent with our analysis. We consider three alternative stories that could potentially explain the results: (i) bad lenders lobbying more, (ii) specialization, and (iii) overoptimism.

First, suppose that bad lenders, who make bad loans, lobby more. The objective of bad lenders, in other words, is to mimic the lobbying behavior of good lenders (who lobby to signal their superior information and to ensure that the regulations allow them to fully exploit such relative advantages or simply to shut down competition). Yet, bad lenders do not have the precise information on what issues the good lenders lobby for. So, they would lobby more in *general* and not particularly on issues related to mortgage lending. However, falsification tests discussed above (Table 5) suggest otherwise as we do not find lobbying on *unrelated* issues to be associated with more risk.

Second, lobbying lenders may be specialized in catering to riskier borrowers, e.g. borrowers with lower income levels or operate in areas with higher average property prices. In this case, we would expect lobbying to be associated with higher LIR, not necessarily indicating lower credit standards but signaling the specialization of the lender. This is also consistent with higher delinquency rates since riskier borrowers are more likely to default during a downturn. However, we include explicit controls, e.g., whether the lender is subprime or is regulated by HUD, as well as area and lender characteristics to capture such specialization effects. Moreover, inclusion of variables that could explain defaults at the MSA level, e.g., house price changes, and the instrumental variable strategy in the delinquency rate analysis suggest that the estimated effect does not capture unobserved shocks that may affect the probability of default in areas in which lobbying lenders expanded their activity more than others.

Third, and perhaps the most likely, alternative interpretation is that overoptimistic lenders may have underestimated the likelihood of an adverse event affecting the mortgage market more than other financial intermediaries did.[41] Under this interpretation, these lenders would

[41] For example, rating agencies and sponsors severely underestimated the probability of default and loss given default when assigning ratings to mortgage-backed securities (Calomiris, 2008).

have lobbied to prevent a tightening of lending standards to exploit their better information on the market or to fully use their capacity at increasing the supply of mortgage loans. Such an interpretation based on overoptimism would also be consistent with lax lending and higher ex-post exposure of lobbying lenders to poorly performing pools of mortgage loans. However, our analysis shows that the relaxation of lending standards of lobbying lenders was even stronger in 2005 and 2006. In particular, we test whether the average LIR of loans originated by lobbying lenders significantly changed after 2004 (Table 13, columns (4) and (5)). We find that LIR for lobbying lenders increased significantly relative to their own sample average (column (4)), as well as relative to all lenders when year dummies are included in the specification (column (5)).[42] This result implies that lobbying lenders relaxed their lending standards more than other lenders. It is not clear why lenders would have become even more overoptimistic during the years when signs of stress in the housing market were becoming visible.[43]

More generally, it is empirically extremely difficult to distinguish alternative stories of moral hazard and lobbying as an information dissemination mechanism. Ultimately, we do not know the exact activities on which lobbying expenditures are spent. While these alternative interpretations could produce observationally equivalent empirical evidence, policy implications are vastly different. Specialized rent-seeking for preferential treatment such as bail-outs could suggest curtailment of lobbying as a socially optimal outcome. Distorted incentives due to short-termism linking risky lending and lobbying could evoke public intervention in the design of executive compensation. If, however, lenders lobby to inform the policymaker and promote innovation, lobbying should be recognized as a socially beneficial channel to facilitate informed decision making.

VI. CONCLUSION

This paper studies the relationship between lobbying by financial institutions and mortgage lending. To the best of our knowledge, this is the first study documenting how lobbying may have contributed to the accumulation of risks leading the way to the current financial crisis. We carefully construct a database at the lender level combining information on loan characteristics and lobbying expenditures on laws and regulations related to mortgage lending (such as consumer protection laws) and securitization. We show that lenders that lobby more intensively on these specific issues have (i) more lax lending standards measured by loan-to-income ratio, (ii) greater tendency to securitize, and (iii) faster growing mortgage loan portfolios. Ex post, delinquency rates are higher in areas in which lobbying lenders' mortgage lending grew faster, and, during key events of the crisis, these lenders experienced negative abnormal stock returns. These findings seem to be consistent with a moral hazard interpretation whereby financial intermediaries lobby to obtain private benefits, making loans

[42] The inclusion of year fixed effects implies that the estimated effect for the period post-2004 is relative to the average for the complete sample of lenders.

[43] Gerardi et al. (2009) show that most foreclosures stem from loans originated in 2005 and 2006, at a time when lenders, despite warning signs of a housing downturn, continued to assign a low probability to such an event.

under less stringent terms. Moral hazard could emerge because they expect to be bailed out when losses amount during a financial crisis or because they privilege short-term gains over long-term profits. Under such an interpretation, specialized rent-seeking and short-termism might justify reining in lobbying activities or public oversight of optimal contracts in the financial industry. Yet, it cannot be ruled out that lenders lobby to inform the policymaker and shocks out of their control lead to riskier lending and undesirable outcomes. Under this interpretation, lobbying by the financial industry can be an integral part of informed policymaking. With the caveat that empirical evidence cannot single out one interpretation as the true explanation, our analysis suggests that the political influence of the financial industry can be a source of systemic risk. Therefore, it provides some support to the view that the prevention of future crises might require weakening political influence of the financial industry or closer monitoring of lobbying activities to understand the incentives behind better.

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Table 1a. Targeted Political Activity Campaign Contributions and Lobbying Expenditures
(millions of dollars)

Election cycle	1999-2000	2001-02	2003-04	2005-06
Contributions from PACs	326	348	461	509
Overall lobbying expenditure	2,972	3,348	4,081	4,747
Of which expenditure by finance, insurance, and real estate industry (FIRE)	437	478	645	720
Share of FIRE in overall lobbying (in percent)	14.7	14.3	15.8	15.2
Total targeted political activity	3,298	3,696	4,542	5,256

Source: Center for Responsive Politics.

Table 1b. Lobbying by Financial Institutions and Lenders' Associations
(millions of dollars)

Year	Total lobbying by financial intermediaries	*Of which:* Lobbying on specific issues	Total lobbying by associations
1999	62	48	4
2000	71	54	4
2001	77	38	6
2002	80	57	9
2003	99	55	11
2004	99	62	12
2005	95	77	13
2006	94	85	14
	-	-	-
Total	677	475	73
Total 2005-06	189	162	27

Table 2. Summary Statistics

	Mean	Median	Std. Deviation
Lender level			
Lobbying dummy	0.19	0.00	0.39
Lobbying amount, total	179702	0.00	910208
Lobbying on specific issues dummy	0.06	0.00	0.24
Lobbying on specific issues amount, total	4775	0.00	31821
Loan-to-income ratio	1.97	1.91	0.91
Percent of loans sold	70.10	99.64	40.75
Subprime dummy	0.24	0.00	0.43
Assets (2006)	3.E+07	1.E+04	2.E+08
Lenders that lobby			
Lobbying amount, total	940729	80000	1910834
Lobbying on specific issues dummy	0.29	0.00	0.45
Lobbying on specific issues amount, total	24973	0.00	69596
Loan-to-income ratio	1.92	1.90	0.70
Percent of loans sold	0.65	0.81	0.38
Subprime dummy	0.22	0.00	0.41
Assets (2006)	2.E+08	3.E+06	4.E+08
Lenders that do not lobby			
Loan-to-income ratio	1.99	1.91	0.96
Percent of loans sold	0.71	1.00	0.41
Subprime dummy	0.24	0.00	0.43
Assets (2006)	2.E+07	1.E+04	2.E+08
MSA level			
Average income	31044	29858	7278
GDP growth	5.38	5.32	3.02
Self-employment rate	3.72	4.15	3.53
Unemployment rate	4.91	4.60	1.83
House price appreciation	6.70	5.12	6.52
Log population	13.25	12.92	1.39
Number of lenders	262	232	124
Number of applications, total	44134	16499	69645
Number of applications, average lender	122	8	653
Regulation dummy	0.79	1.00	0.41

Match Statistics between HMDA and Lobbying Datasets

	Number of lender-MSA	Fraction that lobby	
Year		Total	Specific issues
1999	74,404	0.14	0.07
2000	69,899	0.15	0.07
2001	70,788	0.16	0.04
2002	76,920	0.15	0.08
2003	92,482	0.14	0.09
2004	82,955	0.15	0.08
2005	93,685	0.12	0.08
2006	94,978	0.13	0.09

Table 3. Effect of Lobbying on Loan-to-Income Ratio

Dependent variable: Loan-to-income ratio at (lender, MSA, year) level

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Dummy=1 if lender lobbies on specific issues	**0.012*** **	**0.077*** **	**0.144*** **	**0.074*** **	**0.078*** **	**0.138*** **	**0.144*** **
	[0.005]	**[0.004]**	**[0.004]**	**[0.003]**	**[0.004]**	**[0.004]**	**[0.004]**
Average income in MSA		0.023***	0.024***		0.030***	0.028***	
		[0.000]	[0.000]		[0.001]	[0.001]	
GDP growth rate in MSA		-1.042***	-1.168***		-1.132***	-1.095***	
		[0.042]	[0.042]		[0.053]	[0.052]	
Self-employment rate in MSA		1.567***	1.509***		-0.26	-0.276*	
		[0.050]	[0.050]		[0.159]	[0.157]	
Unemployment rate in MSA		2.837***	2.652***		-1.672***	-1.656***	
		[0.081]	[0.082]		[0.183]	[0.181]	
Log total population in MSA		-0.089***	-0.080***		-0.469***	-0.479***	
		[0.003]	[0.003]		[0.055]	[0.054]	
Annual change in house price appreciation		1.555***	1.533***		0.118***	0.119***	
		[0.025]	[0.025]		[0.033]	[0.032]	
Number of competing lenders in MSA		0.282***	0.268***		0.248***	0.255***	
		[0.008]	[0.008]		[0.015]	[0.015]	
Number of loan applications in MSA		0.020***	0.046***		0.152***	0.178***	
		[0.004]	[0.004]		[0.009]	[0.009]	
Log (assets of lender)			0.008***			0.011***	0.009***
			[0.001]			[0.001]	[0.001]
Dummy=1 if regulator is HUD			0.236***			0.213***	0.212***
			[0.004]			[0.004]	[0.004]
Market share of lender in MSA			3.637***			3.870***	4.109***
			[0.112]			[0.106]	[0.104]
Log (income of applicants of loans originated by lender)			-0.052***			-0.058***	-0.063***
			[0.001]			[0.001]	[0.001]
Dummy=1 if lender is subprime			-0.014***			-0.006**	0.000
			[0.003]			[0.003]	[0.003]
Number of observations	648,938	581,105	581,105	648,938	581,105	581,105	648,938
MSA fixed effects	No	No	No	Yes	Yes	Yes	Yes
Year fixed effects	No	No	No	Yes	Yes	Yes	Yes
MSA*year fixed effects	No	No	No	No	No	No	Yes

Lobbying on specific issues refers to lobbying on bills and regulations related to mortgage lending (such as consumer protection laws) and securitization. See text for details. Standard errors denoted in parentheses are clustered at the lender-MSA level. ***, ** and * represent statistical significance at 1, 5 and 10 percent, respectively.

Table 4. Effect of Lobbying Expenditures on Loan-to-Income Ratio

Dependent variable: Loan-to-income ratio at (lender, MSA, year) level

	[1]	[2]	[3]	[4]	[5]
Log (lender lobbying expenditures on specific issues), lagged	**0.003*** **	**0.008*** **	**0.003*** **	**0.003*** **	**0.004*** **
	[0.000]	**[0.000]**	**[0.000]**	**[0.000]**	**[0.000]**
Log (assets of lender)					0.008***
					[0.000]
Market share of lender in MSA					4.366***
					[0.103]
Log (income of applicants of loans originated by lender)					-0.043***
					[0.001]
Number of observations	648,938	648,938	648,938	648,938	648,938
MSA fixed effects	No	Yes	Yes	Yes	Yes
Year fixed effects	No	Yes	Yes	Yes	Yes
Lender fixed effects	No	No	Yes	Yes	Yes
MSA*year fixed effects	No	No	No	Yes	Yes

Lobbying on specific issues refers to lobbying on bills and regulations related to mortgage lending (such as consumer protection laws) and securitization. See text for details. Standard errors denoted in parentheses are clustered at the lender-MSA level. ***, ** and * represent statistical significance at 1, 5 and 10 percent, respectively.

Table 5. Effect of Lobbying on Loan-to-Income Ratio : Falsification Tests

Dependent variable: Loan-to-income ratio at (lender, MSA, year) level

	[1]	[2]	[3]	[4]	[5]	[6]
Dummy=1 if lender lobbies on specific issues	**-0.002**	**0.069*** **	**0.140*** **	**0.065*** **	**0.134*** **	**0.141*** **
	[0.005]	**[0.004]**	**[0.004]**	**[0.004]**	**[0.004]**	**[0.004]**
Dummy=1 if lender lobbies only on other issues	**-0.160*** **	**-0.088*** **	**-0.026*** **	**-0.084*** **	**-0.023*** **	**-0.019*** **
	[0.005]	**[0.005]**	**[0.005]**	**[0.004]**	**[0.005]**	**[0.005]**
Average income in MSA		0.023***	0.024***		0.028***	
		[0.000]	[0.000]		[0.001]	
GDP growth rate in MSA		-1.047***	-1.170***		-1.095***	
		[0.042]	[0.042]		[0.052]	
Self-employment rate in MSA		1.560***	1.507***		-0.275*	
		[0.050]	[0.050]		[0.157]	
Unemployment rate in MSA		2.805***	2.654***		-1.654***	
		[0.081]	[0.082]		[0.181]	
Log total population in MSA		-0.089***	-0.080***		-0.479***	
		[0.003]	[0.003]		[0.054]	
Annual change in house price appreciation		1.549***	1.534***		0.119***	
		[0.025]	[0.025]		[0.032]	
Number of competing lenders in MSA		0.280***	0.267***		0.255***	
		[0.008]	[0.008]		[0.015]	
Number of loan applications in MSA		0.019***	0.045***		0.178***	
		[0.004]	[0.004]		[0.009]	
Log (assets of lender)			0.009***		0.012***	0.010***
			[0.001]		[0.001]	[0.001]
Dummy=1 if regulator is US HUD			0.237***		0.215***	0.214***
			[0.004]		[0.005]	[0.004]
Market share of lender in MSA			3.632***		3.862***	4.100***
			[0.113]		[0.106]	[0.104]
Log (income of applicants of loans originated by lender)			-0.051***		-0.057***	-0.062***
			[0.001]		[0.001]	[0.001]
Dummy=1 if lender is subprime			-0.015***		-0.008**	-0.001
			[0.003]		[0.003]	[0.003]
Number of observations	648,938	581,105	581,105	648,938	581,105	648,938
MSA fixed effects	No	No	No	Yes	Yes	Yes
Year fixed effects	No	No	No	Yes	Yes	Yes
MSA*year fixed effects	No	No	No	No	No	Yes

Lobbying on specific issues refers to laws and regulations related to financial and banking sector policies. See text for details. Lobbying on other issues is measured by total lobbying expenditures if the lender lobbies only for other issues, and zero otherwise. Standard errors denoted in parentheses are clustered at the lender-MSA level. ***, ** and * represent significance at 1, 5 and 10 percent, respectively.

Table 6. Effect of Specific Issues Lobbying Expenditures: Difference-in-Difference Strategy

Dependent variable: Loan-to-income ratio at (lender, MSA, year) level

	[1]	[2]	[3]	[4]
Dummy=1 if anti-predatory lending law in (MSA, year)	0.166***	0.015***	0.006	0.006
	[0.004]	[0.005]	[0.005]	[0.005]
Log (lender lobbying expenditures on specific issues), lagged	0.007***	0.009***	0.008***	0.007***
	[0.001]	[0.001]	[0.001]	[0.001]
Log (lender lobbying expenditures on specific issues), lagged*Lending law	**-0.001**	**-0.007*** **	**-0.006*** **	**-0.005*** **
	[0.001]	**[0.002]**	**[0.001]**	**[0.001]**
Average income in MSA			0.028***	0.028***
			[0.002]	[0.002]
GDP growth rate in MSA			-0.959***	-0.952***
			[0.053]	[0.053]
Self-employment rate in MSA			-0.128	-0.104
			[0.165]	[0.164]
Unemployment rate in MSA			-2.221***	-2.251***
			[0.255]	[0.252]
Log total population in MSA			-0.540***	-0.560***
			[0.063]	[0.062]
Annual change in house price appreciation			0.086**	0.095***
			[0.035]	[0.034]
Number of competing lenders in MSA			0.186***	0.188***
			[0.016]	[0.015]
Number of loan applications in MSA			0.102***	0.126***
			[0.010]	[0.010]
Log (assets of lender)				0.008***
				[0.000]
Market share of lender in MSA				2.750***
				[0.092]
Log (income of applicants of loans originated by lender)				-0.029***
				[0.001]
Number of observations	406,035	406,035	355,656	355,656
Lender fixed effects	No	No	Yes	Yes
MSA fixed effects	No	Yes	Yes	Yes
Year fixed effects	No	Yes	Yes	Yes

Lobbying on specific issues refers to lobbying on bills and regulations related to mortgage lending (such as consumer protection laws) and securitization. Standard errors denoted in parentheses are clustered at the lender-MSA level. ***, ** and * represent statistical significance at 1, 5 and 10 percent, respectively.

Table 7. Effect of Lobbying Expenditures on Loan-to-Income Ratio: Instrumental Variables

Dependent variable: Loan-to-income ratio at (lender, MSA, year) level			
	[1]	[2]	[3]
Log (lender lobbying expenditures on specific issues), lagged	0.586***	0.612***	0.856***
	[0.096]	[0.021]	[0.033]
Log (assets of lender)			-0.030***
			[0.002]
Market share of lender in MSA			1.932***
			[0.206]
Log (income of applicants of loans originated by lender)			-0.047***
			[0.002]
Number of observations	405,839	405,837	405,837
First stage F-stat	113	1192	688
p-value	0.000	0.000	0.000
MSA fixed effects	No	Yes	Yes
Year fixed effects	No	Yes	Yes
Lender fixed effects	No	Yes	Yes
MSA*year fixed effects	No	Yes	Yes
First Stage Results			
Dependent variable: Log lender lobbying expenditures on specific issues at at (lender, year) level			
	[1]	[2]	[3]
Log (distance to Washington, DC * ROW purchases of US treasuries), lagged	0.080***	0.207***	0.155***
	[0.007]	[0.006]	[0.006]
Log (assets of lender)			0.041***
			[0.001]
Market share of lender in MSA			1.434***
			[0.215]
Log (income of applicants of loans originated by lender)			0.016***
			[0.001]
Number of observations	405,839	405,839	405,839
MSA fixed effects	No	Yes	Yes
Year fixed effects	No	Yes	Yes
Lender fixed effects	No	Yes	Yes
MSA*year fixed effects	No	Yes	Yes

Lobbying on specific issues refers to lobbying on bills and regulations related to mortgage lending (such as consumer protection laws) and securitization. Lender lobbying expenditures on specific issues is instrumented by the interaction of distance of the lender's headquarters to Washington, DC (lender-varying) and rest of the world's purchases of US treasuries (time-varying). See text for details. Standard errors denoted in parentheses are clustered at the MSA level. ***, ** and * represent statistical significance at 1, 5 and 10 percent, respectively.

Table 8. Effect of Lobbying Expenditures on Loan-to-Income Ratios -- System GMM

Dependent variable: Loan-to-income ratio at (lender, year) level

	[1]	[2]	[3]	[4]	[5]
Log (lender lobbying expenditures on specific issues), lagged	**0.020*** **	**0.020*** **	**0.020*** **	**0.020*** **	**0.020*** **
	[0.007]	**[0.007]**	**[0.006]**	**[0.006]**	**[0.006]**
Log (assets of lender)	-0.001	0.000	0.000	0.000	0.000
	[0.004]	[0.004]	[0.004]	[0.004]	[0.004]
Market share of lender in MSA	-0.391*	-0.387*	-0.394*	-0.390*	-0.389*
	[0.214]	[0.213]	[0.213]	[0.213]	[0.213]
Log (income of applicants of loans originated by lender)	-0.052***	-0.052***	-0.053***	-0.053***	-0.053***
	[0.005]	[0.005]	[0.005]	[0.005]	[0.005]
Number of observations	54,751	54,751	54,751	54,751	54,751
Hansen Test: P-value	0.075	0.236	0.264	0.344	0.404
AR2 test: P-value	0.555	0.555	0.555	0.554	0.554
Number of instruments	22	26	29	31	32
Number of lags used as instruments	1	2	3	4	5
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Lender fixed effects	Yes	Yes	Yes	Yes	Yes

The data are collapsed at the lender-year level. Market share at the lender-year level is a weighted average of market shares at the lender-MSA-year level, with weights being the share of loans originated by a lender during a particular year in a given MSA. Lobbying on specific issues refers to lobbying on bills and regulations related to mortgage lending (such as consumer protection laws) and securitization. See text for details. All specifications are estimated by system GMM. Lagged log lender lobbying expenditures on specific issues is treated as endogenous. Lagged levels (in the first difference equation) and lagged differences (in the levels equation) of this variable are used as internal instruments, whereas the external instrument is the same as in Table 5, i.e., the interaction of distance of the lender's headquarter to Washington, DC (lender-varying) and rest of the world's purchases of US treasuries (time-varying). Standard errors denoted in parentheses are clustered at the lender level. ***, ** and * represent statistical significance at 1, 5 and 10 percent, respectively.

Table 9. Effect of Lobbying Expenditures on Proportion of Loans Sold

Dependent variable: Proportion of loans sold at (lender, MSA, year) level

	Ordinary Least Squares			Instrumental Variables		
	[1]	[2]	[3]	[4]	[5]	[6]
Log (lender lobbying expenditures on specific issues), lagged	**-0.005*** **	**0.007*** **	**0.007*** **	**0.309*** **	**0.024*** **	**0.024*** **
	[0.000]	**[0.000]**	**[0.000]**	**[0.025]**	**[0.005]**	**[0.006]**
Log (assets of lender)			-0.000**			-0.001***
			[0.000]			[0.000]
Market share of lender in MSA			0.215***			0.193***
			[0.026]			[0.026]
Log (income of applicants of loans originated by lender)			0.002***			0.001***
			[0.000]			[0.000]
Number of observations	406,035	406,035	406,035	405,839	405,837	405,837
First stage F-stat				113	1192	688
p-value				0.000	0.000	0.000
MSA fixed effects	No	Yes	Yes	No	Yes	Yes
Year fixed effects	No	Yes	Yes	No	Yes	Yes
Lender fixed effects	No	Yes	Yes	No	Yes	Yes
MSA*year fixed effects	No	Yes	Yes	No	Yes	Yes

Lobbying on specific issues refers to lobbying on bills and regulations related to mortgage lending (such as consumer protection laws) and securitization. In Columns (4)-(6), lender lobbying expenditures on specific issues is instrumented by the interaction of distance of the lender's headquarters to Washington, DC (lender-varying) and rest of the world's purchases of US treasuries (time-varying). See text for details. Standard errors denoted in parentheses are clustered at the lender-MSA level. ***, ** and * represent statistical significance at 1, 5 and 10 percent, respectively.

Table 10. Effect of Lobbying Expenditures on Credit Growth

Dependent variable: Growth in amount of originated loans at (lender, MSA, year) level

	Ordinary Least Squares			Instrumental Variables		
	[1]	[2]	[3]	[4]	[5]	[6]
Log (lender lobbying expenditures on specific issues), lagged	**0.277*** **	**0.305*** **	**0.322*** **	**1.997*** **	**2.846** **	**2.629***
	[0.085]	**[0.087]**	**[0.118]**	**[0.677]**	**[1.376]**	**[1.490]**
Log (assets of lender)			-0.113**			-0.214***
			[0.047]			[0.040]
Market share of lender in MSA			-27.750**			-30.550***
			[12.112]			[10.803]
Log (income of applicants of loans originated by lender)			0.740***			0.699***
			[0.079]			[0.092]
Number of observations	406,996	406,996	385,701	406,799	406,797	385,503
MSA fixed effects	No	Yes	Yes	No	Yes	Yes
Year fixed effects	No	Yes	Yes	No	Yes	Yes
Lender fixed effects	No	No	Yes	No	No	Yes
MSA*year fixed effects	No	No	Yes	No	No	Yes

Lobbying on specific issues refers to lobbying on bills and regulations related to mortgage lending (such as consumer protection laws) and securitization. In Columns (4)-(6), lender lobbying expenditures on specific issues is instrumented by the interaction of distance of the lender's headquarters to Washington, DC (lender-varying) and rest of the world's purchases of US treasuries (time-varying). See text for details. Standard errors denoted in parentheses are clustered at the lender-MSA level. ***, ** and * represent statistical significance at 1, 5 and 10 percent, respectively.

Table 11a. Effect of Lobbying on Loan Delinquency Rates

Dependent variable: Delinquency rate in 2008 at (MSA, year) level

				Falsification	
	(1)	(2)	(3)	(4)	(5)
			excl. CA, FL & NE		
Growth in market share of lenders lobbying on specific issues	**0.6530*** **	**0.2197***	**0.6026*** **	**0.6824*** **	**0.2234***
(average 2000-06)	**[0.1411]**	**[0.1174]**	**[0.1348]**	**[0.1442]**	**[0.1180]**
Growth in market share of lenders lobbying on other issues				-0.0408	-0.0315
(average 2000-06)				[0.0634]	[0.1037]
House price appreciation	-0.3082***	-0.2806***	-0.4071***	-0.3052***	-0.2781***
	[0.0604]	[0.0647]	[0.0672]	[0.0604]	[0.0645]
Average income	0.0020***	0.0021***	0.0013*	0.0020***	0.0021***
	[0.0007]	[0.0006]	[0.0007]	[0.0007]	[0.0006]
Share of subprime loans in MSA	0.7129***	0.6508***	0.6136***	0.7105***	0.6495***
	[0.0932]	[0.0930]	[0.1248]	[0.0928]	[0.0925]
Share of hispanics in population	-0.0435***	-0.0320***	-0.0454***	-0.0417***	-0.0312***
	[0.0111]	[0.0074]	[0.0162]	[0.0111]	[0.0071]
GDP growth	-0.1886**	-0.1124***	-0.1914*	-0.1863**	-0.1124**
	[0.0849]	[0.0417]	[0.0959]	[0.0842]	[0.0423]
Log number of lenders	0.0569***	0.0344***	0.0438***	0.0561***	0.0339***
	[0.0126]	[0.0103]	[0.0140]	[0.0125]	[0.0102]
Log population	-0.0148***	-0.0094**	-0.0080*	-0.0147***	-0.0092**
	[0.0044]	[0.0037]	[0.0043]	[0.0044]	[0.0037]
State clusters	YES	YES	YES	YES	YES
State fixed effect	NO	YES	YES	NO	YES
Observations	306	306	258	306	306
R-squared	0.54	0.79	0.61	0.54	0.79

Lobbying on specific issues refers to lobbying on bills and regulations related to mortgage lending (such as consumer protection laws) and securitization. Large lenders are the top quartile of lobbying lenders (in terms of assets). ***, ** and * represent statistical significance at 1, 5 and 10 percent, respectively. Robust standard errors are in brackets.

Table 11b. Effect of Lobbying on Loan Delinquency Rates: Instrumental Variables				
Dependent variable: Delinquency rate in 2008 at (MSA, year) level				
	(1)	(2)	(3)	(4)
Method of estimation	LIML	2SLS	LIML	LIML
Growth in market share of lenders lobbying on specific issues	1.8687**	1.4745**	1.6102*	1.6102**
(average 2000-06)	[0.8989]	[0.6768]	[0.8225]	[0.7794]
House price appreciation	-0.2693***	-0.2819***	-0.2776***	-0.2776***
	[0.0566]	[0.0565]	[0.0576]	[0.0375]
Average income	0.0018***	0.0019***	0.0018***	0.0018***
	[0.0007]	[0.0006]	[0.0006]	[0.0005]
Share of subprime loans in MSA	0.7422***	0.7327***	0.7360***	0.7360***
	[0.0914]	[0.0897]	[0.0907]	[0.0739]
Share of hispanics in population	-0.0368***	-0.0390***	-0.0383***	-0.0383***
	[0.0114]	[0.0111]	[0.0114]	[0.0088]
GDP growth	-0.114	-0.1382	-0.1299	-0.1299*
	[0.0947]	[0.0894]	[0.0943]	[0.0727]
Log number of lenders	0.0532***	0.0544***	0.0540***	0.0540***
	[0.0115]	[0.0113]	[0.0114]	[0.0092]
Log population	-0.0131***	-0.0137***	-0.0135***	-0.0135***
	[0.0043]	[0.0041]	[0.0041]	[0.0030]
State clusters	YES	YES	YES	NO
Observations	306	306	306	306
R-squared	0.36	0.46	0.43	0.43
Hansen J stat (p value)	.	0.29	0.29	0.11
First Stage Results				
Dependent variable: Growth in market share of lenders lobbying on specific issues				
Initial market share of lenders lobbying on specific issues	-0.0086**	-0.0114***	-0.0119***	-0.0119***
Weighted by HQ distance to D.C., in log	[0.0034]	[0.0039]	[0.0038]	[0.0038]
Initial market share of lenders lobbying on other issues	.	0.0084**	0.0084**	0.0084*
Weighted by HQ distance to D.C., in log		[0.0043]	[0.0034]	[0.0043]
F-test of excluded instruments	6.462	4.56	4.56	5.78
Stock-Yogo critical values				
10%	16.38	19.93	8.68	8.68
15%	8.96	11.59	5.33	5.33
20%	6.66	8.75	4.42	4.42
25%	5.53	7.25	3.92	3.92

Lobbying on specific issues refers to lobbying on bills and regulations related to mortgage lending (such as consumer protection laws) and securitization. ***, ** and * represent statistical significance at 1, 5 and 10 percent, respectively. Robust standard errors are in brackets.

Table 12. Lobbying and Abnormal Stock Returns

Dependent variable	**Stock price return**			**Mean-adjusted return**			**Market- and risk-adjusted return**		
Market Event	*(1) & (2)*	*(3) & (4)*	*(4)*	*(1) & (2)*	*(3) & (4)*	*(4)*	*(1) & (2)*	*(3) & (4)*	*(4)*
Lender lobbies on specific issues	**-0.0970*** **	**-0.1799*** **	**-0.2973** **	**-0.0176***	**-0.1522** **	**-0.2745** **	**-0.0518*** **	**-0.1569** **	**-0.2739** **
	[0.0104]	**[0.0662]**	**[0.1252]**	**[0.0096]**	**[0.0633]**	**[0.1210]**	**[0.0094]**	**[0.0627]**	**[0.1201]**
Subprime lender	0.1121***	0.0869	0.2370*	0.0327***	0.0846	0.2373*	0.0267***	0.0754	0.2233*
	[0.0082]	[0.0718]	[0.1339]	[0.0076]	[0.0686]	[0.1294]	[0.0075]	[0.0680]	[0.1285]
Log(total assets)	-0.0061***	0.0060	-0.0000	-0.0008	0.0080	0.0014	0.0012	0.0071	-0.0004
	[0.0018]	[0.0103]	[0.0195]	[0.0017]	[0.0099]	[0.0188]	[0.0017]	[0.0098]	[0.0187]
Log(mortgage loans/assets)	-0.0095***	-0.0152*	-0.0211	-0.0066***	-0.0120	-0.0179	-0.0056***	-0.0122	-0.0189
	[0.0018]	[0.0085]	[0.0160]	[0.0016]	[0.0081]	[0.0154]	[0.0016]	[0.0080]	[0.0153]
Constant	0.0077	-0.1104	-0.0345	-0.0151	-0.0964	-0.0130	0.0000	-0.1023	-0.0055
	[0.0278]	[0.1569]	[0.2918]	[0.0257]	[0.1499]	[0.2820]	[0.0253]	[0.1487]	[0.2801]
Event fixed effect	YES	YES	NO	YES	YES	NO	YES	YES	NO
Number of observations	459	137	67	459	137	67	459	137	67
R-squared	0.53	0.09	0.13	0.19	0.07	0.12	0.13	0.07	0.12

Mean-adjusted stock price return is the stock price return over the month of the event, adjusted for its mean over 2007-08.

Market- and risk-adjusted return is the stock price return over the month of the event, adjusted for the predicted return based on a CAPM where the market portfolio is proxied by the stock price index of financial institutions in the S&P500.

Market events: (1) August 1-17, 2007: suspension of redemptions on funds with subprime exposures; (2) Dec 12, 2007: Fed, ECB, SNB and Bank of Canada jointly announce measures to address short-term funding market pressures; Fed establishes Term Auction Facility (TAF); (3) March 11-16, 2008: JP Morgan acquires Bear Stearns after Fed provides $30 billion in non-recourse funding; Fed creates Term Securities Lending Facility (TSLF) and Primary Dealer Credit Facility (PDCF) to expand liquidity provision to wider group of counterparties; (4) September 15-16, 2008: U.S. Investment bank Lehman Brothers files for bankruptcy; U.S. authorities step in to rescue AIG.

Lobbying on specific issues refers to lobbying on bills and regulations related to mortgage lending (such as consumer protection laws) and securitization. ***, ** and * represent statistical significance at 1, 5 and 10 percent, respectively. Robust standard errors are in brackets.

Table 13. Evidence Inconsistent with Alternative Explanations

Dependent variable: Loan-to-income ratio at (lender, MSA, year) level		Dependent variable: Proportion of loans sold at (lender, MSA, year) level		
Large lenders				
	(1)		(2)	
Log lender lobbying expenditures on specific issues	**0.004*** **	**Log lender lobbying expenditures on specific issues**	**0.001*** **	
	[0.001]		**[0.000]**	
Log lender lobbying expenditures on specific issues	**0.002***	**Log lender lobbying expenditures on specific issues**	**0.004*** **	
*** dummy Large lender**	**[0.001]**	*** dummy Large lender**	**[0.000]**	
Log (assets of lender)	0.008***	Log (assets of lender)	0.000**	
	[0.000]		[0.000]	
Market share of lender in MSA	4.365***	Market share of lender in MSA	0.220***	
	[0.103]		[0.023]	
Log (income of applicants of loans originated by lender)	-0.043***	Log (income of applicants of loans originated by lender)	0.001***	
	[0.001]		[0.000]	
MSA fixed effects	Yes	MSA fixed effects	Yes	
Year fixed effects	Yes	Year fixed effects	Yes	
Lender fixed effects	Yes	Lender fixed effects	Yes	
MSA*year fixed effects	Yes	MSA*year fixed effects	Yes	
Dependent variable: Delinquency rate in 2008 at (MSA, year) level		Dependent variable: Loan-to-income ratio at (lender, MSA, year) level		
Large lenders		After SEC rule change		
	(3)		(4)	(5)
Growth in market share of lenders lobbying on specific issues	**0.2177***	**Dummy=1 if lender lobbies on specific issues**	**0.113*** **	**0.125*** **
(average 2000-06)	**[0.1107]**		**[0.005]**	**[0.004]**
Growth in market share of lenders lobbying on specific issues	0.1143*	**Dummy=1 if lender lobbies on specific issues**	**0.119*** **	**0.072*** **
(average 2000-06) - Large lenders	[0.0646]	**& year is 2005 or 2006**	**[0.006]**	**[0.006]**
House price appreciation	-0.2808***	Average income in MSA	0.024***	
	[0.0657]		[0.000]	
Average income	0.0020***	GDP growth rate in MSA	-1.194***	
	[0.0006]		[0.042]	
Share of subprime loans in MSA	0.6565***	Self-employment rate in MSA	1.522***	
	[0.0941]		[0.050]	
Share of hispanics in population	-0.0327***	Unemployment rate in MSA	2.622***	
	[0.0073]		[0.082]	
GDP growth	-0.1146***	Log total population in MSA	-0.078***	
	[0.0424]		[0.003]	
Log number of lenders	0.0349***	House price appreciation	1.532***	
	[0.0102]		[0.025]	
Log population	-0.0091**	Number of competing lenders in MSA	0.262***	
	[0.0037]		[0.008]	
		Number of loan applications in MSA	0.047***	
			[0.004]	
		Log (assets of lender)	0.009***	0.0089***
			[0.001]	[0.0006]
		Dummy=1 if regulator is HUD	0.237***	0.2127***
			[0.004]	[0.0043]
		Market share of lender in MSA	3.636***	4.0946***
			[0.112]	[0.1040]
		Log (income of applicants of loans originated by lender)	-0.052***	-0.0626***
			[0.001]	[0.0010]
		Dummy=1 if lender is subprime	-0.016***	-0.0021
			[0.003]	[0.0031]
State clusters	Yes	MSA fixed effects	No	Yes
State fixed effect	Yes	Year fixed effects	No	Yes
		MSA*year fixed effects	No	Yes

Lobbying on specific issues refers to lobbying on bills and regulations related to mortgage lending (such as consumer protection laws) and securitization. In columns (1) to (3), large lenders are the top quartile of lobbying lenders (in terms of assets). Standard errors denoted in parentheses are clustered at the lender-MSA level in columns (1), (2), (4), and (5) and at the state level in column (3). ***, ** and * represent statistical significance at 1, 5 and 10 percent, respectively.

Figure 1. Lobbying exp/firm, by sector, 2006

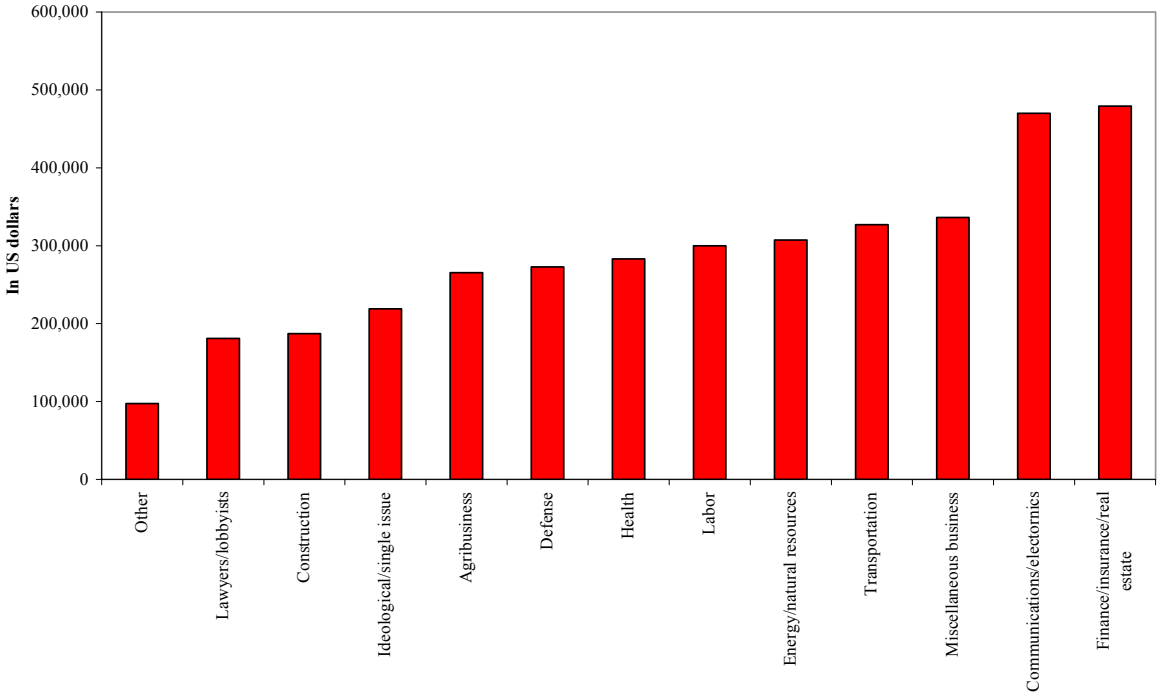


Figure 2. Evolution of lobbying Intensity (expenditures per firm) over time

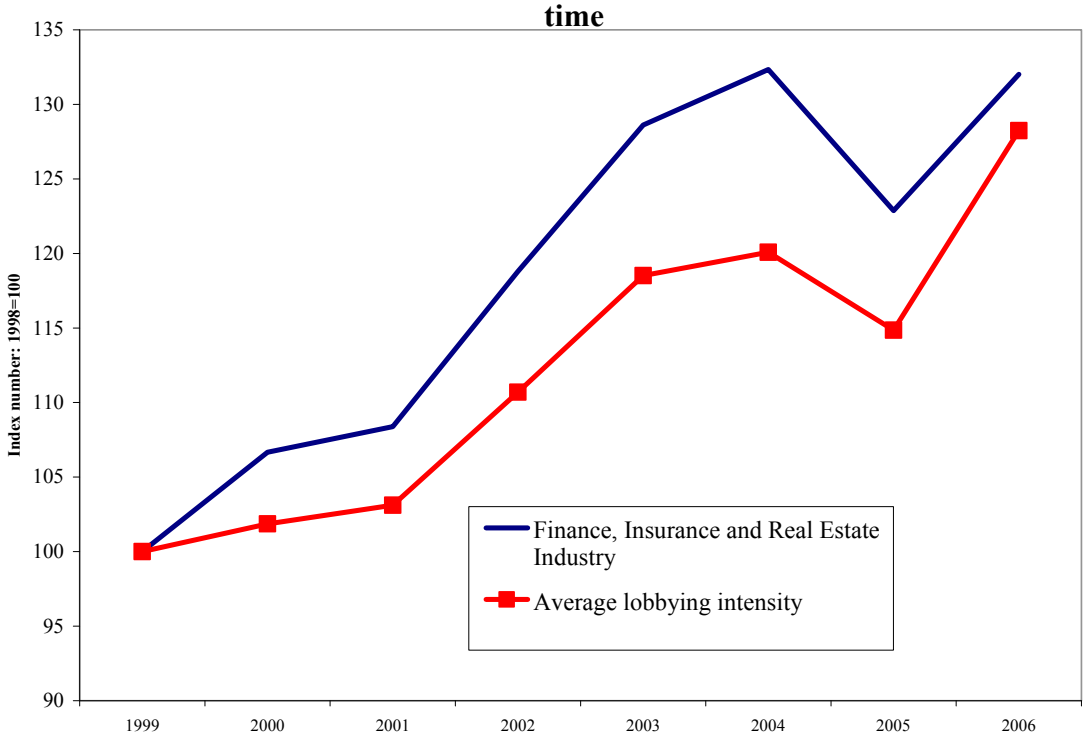


Figure 3. Lending Standards

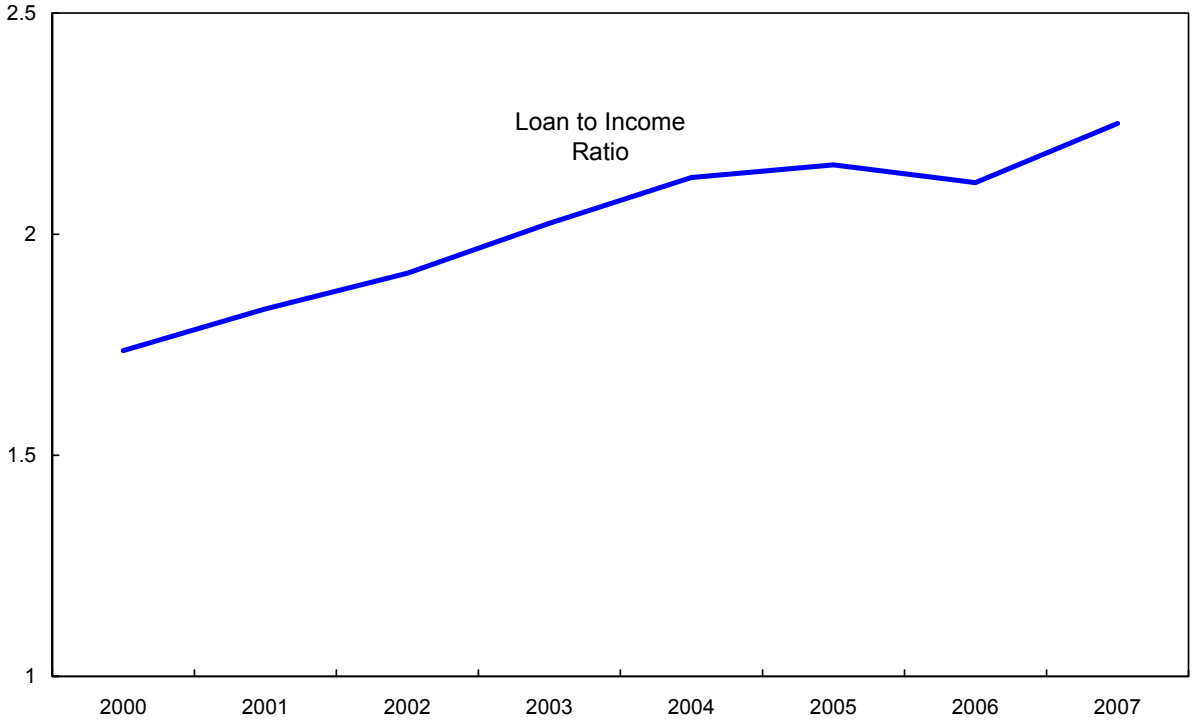
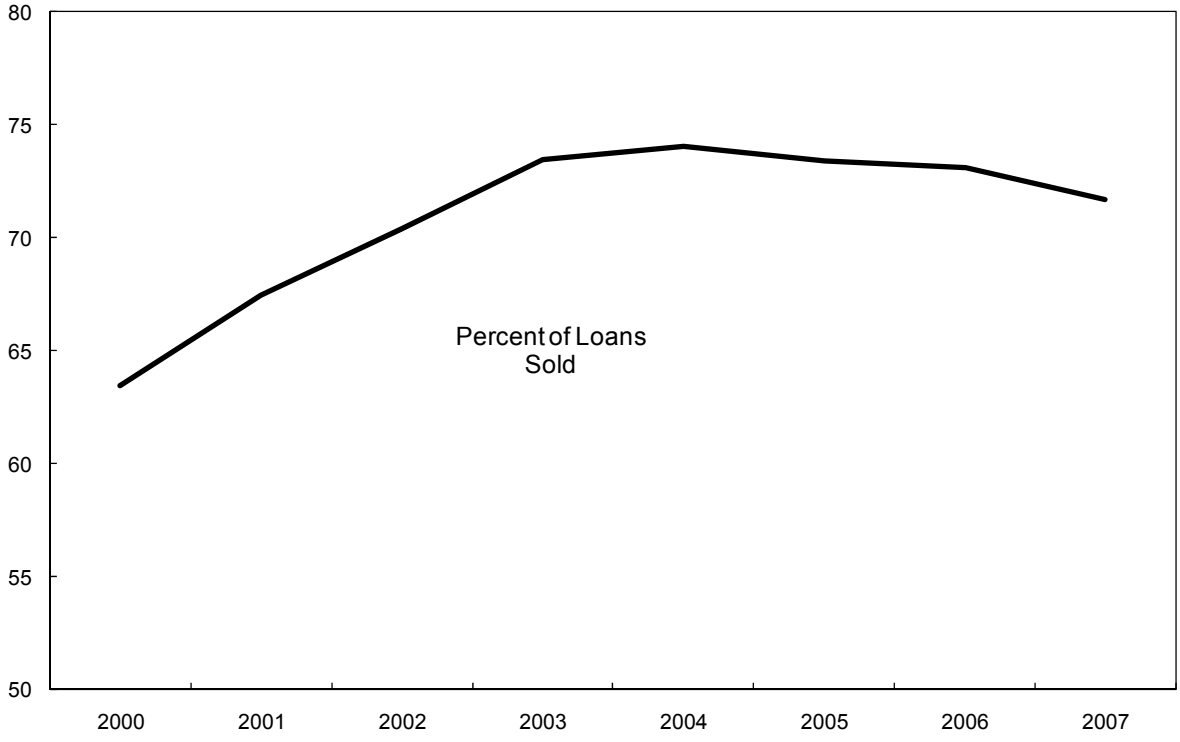


Figure 4. Securitization



Appendix

Home Mortgage Disclosure Act (HMDA)

Enacted by Congress in 1975, the original purpose of the Act was two-fold: enhance enforcement of anti-discriminatory lending laws and disseminate information to guide investments in housing. The Act requires financial institutions to disclose information to their regulatory agency about every loan application received. Whether an institution is covered depends on its size, the extent of its activity in a metropolitan statistical area (MSA), and the weight of residential mortgage lending in its portfolio. Any depository institution with a home office or branch in an MSA must report HMDA data if it has made a home purchase loan on a one-to-four unit dwelling or has refinanced a home purchase loan and if it has assets above an annually adjusted threshold. Any non-depository institution with at least ten percent of its loan portfolio composed of home purchase loans must also report HMDA data if it has assets exceeding $10 million. Under these criteria, small lenders and lenders with offices only in non-metropolitan areas are exempt from HMDA data reporting requirements. Therefore, information for rural areas tends to be incomplete. Yet, U.S. Census figures show that about 83 percent of the population lived in metropolitan areas over our sample period, and hence, the bulk of residential mortgage lending activity is likely to be reported under the HMDA. Information covers individual characteristics (race, ethnicity, income, geographic location of the property, etc.), loan information (amount requested, response, reasons for denial, etc.) and institution information (regulatory authority, geographic location, and assets). The data can be ordered on CD-ROM's from the Federal Financial Institutions Examination Council (FFIEC), and starting in 2006 they can also be downloaded from their website. The data cover about 250 million loan applications between 1996 and 2007.

In order to make sure that the data are clear of outliers and erroneous values, we follow these procedures:

- Loan amount and applicant income are rounded to a lower limit, hence all observations below $1000 and $10000, respectively, are eliminated.

- Definitions of applicant race, loan purpose and purchaser type have changed between 2003 and 2004. For applicant race, an applicant ethnicity variable has been added and the race code for Hispanic has been eliminated. Other codes have been rearranged. In our dataset, these variables are transformed into harmonized dummies for selected ethnicities. Loan purpose category "multifamily" has been moved to a new specific variable called property type in 2004. In order to harmonize the pre-2003 and post-2003 data, all multifamily-related records are eliminated. Purchaser type has gone under a minor recoding to make room for "securitization", i.e. the packaging and sale of loans on the open market, as opposed to the sale of the whole loan to a private institution or government-sponsored enterprise. As we do not distinguish between loan sales and securitized loans, no adjustments are made for this change.

- We eliminate all application records that did not end in one of the three following actions: loan originated, application approved but not accepted, application denied. Other actions mostly represent dubious statuses (e.g. application withdrawn by applicant) or purchased loans; these have also been excluded because it is not clear whether they are reported twice, once by the originating institution and again by the purchasing institution.

Although HMDA is a relatively homogeneous dataset considering its size, there are some inconsistencies that need to be dealt with. First, HMDA disclosure requirements change, although minimally, from one year to the next to reflect changes in metropolitan area definitions and keep minimum institution size in line with inflation. While there is little that can be done to take account of the fact that the set of institutions qualifying under the applicable rules on the size restriction change, we eliminate the observations that cannot be associated with a metropolitan area, which typically turn out to be loans made in rural areas by institutions whose primary business is in metropolitan areas and are therefore required to report or loans that were made in an area that happened to be reclassified as rural. Second, 2004 was marked by a major overhaul of the HMDA regulations. New variables were added, including the interest rate when it is set above a certain threshold: the number of variables expanded from 30 to 45. Moreover, the Office of Management and Budget (OMB) increased the number of official Metropolitan areas (MAs) from about 320 to about 390. The boundaries of the MAs themselves were sometimes enlarged, increasing the number of lenders required to report. Trends apparent from a comparison of aggregate figures from 2003 and 2004, therefore, should be taken with a grain of salt. For example, loan market growth rates are likely to be inflated because in the existing MAs more institutions were required to disclose; at the same time, in a specific MA figures could be understated because part of the counties that used to form it have been incorporated into a new MA. In such cases, 2004 aggregate figures have been interpolated using 2003 and 2005 figures. Third, some Loan Application Records (LARs) were found to be wrong or inconsistent by numerous data validity checks operated by the FFIEC. Such records, after being altered automatically, have been marked as "edited" using a flag. Around 6 percent of all records are marked as edited. Edits are distributed in a homogeneous fashion across time and across space. In any event, those records have been eliminated from our database.[44]

To concentrate on a relatively homogeneous set of loans, we drop loans for multi-family purpose from the sample, as this is a distinct market from the overall mortgage market for single family homes. We also drop federally insured loans as their risk profile is likely to differ from that of other loans.

HMDA data does not include a field that identifies whether an individual loan application is a subprime loan application. In order to distinguish between the subprime and prime loans, we use the subprime lenders list as compiled by the U.S. Department of Housing and Urban

[44] An exception is Arizona in 2003. For most Arizona MAs in 2003 nearly all records are reported as edited. While the reasons of this remain unknown, such records have been eliminated, and 2003-04 credit growth rates have been interpolated using data from the adjacent years.

Development (HUD) each year. HUD has annually identified a list of lenders who specialize in either subprime or manufactured home lending since 1993. HUD uses a number of HMDA indicators, such as origination rates, share of refinance loans, and proportion of loans sold to government-sponsored housing enterprises, to identify potential subprime lenders. Since 2004, lenders are required to identify loans for manufactured housing and loans in which the annual percentage rate (APR) on the loan exceeds the rate on the Treasury security of comparable maturity by at least three (five, for second-lien loans) percentage points and report this information under HMDA. The rate spread can be used as an alternative indicator (to the HUD list) to classify subprime loans. For the years with available data, the ranking of subprime lenders using the rate spread variable alone coincides closely with the ranking in the HUD list (the correlation is around 0.8).

Data at the Metropolitan Statistical Area (MSA) Level

Despite its broad coverage on borrower, property, and loan characteristics, several important variables that might have an impact on lending decisions are left out in HMDA. The lack of knowledge on the applicant's credit score and age, interest rate and maturity of the loan, and property price are just examples of missing fundamental information on which the lender might base the decision. Some of this essential information might be partially recovered through use of economic and social indicators available for the geographical area. For that purpose, we gather data from the following sources.

- Bureau of Economic Analysis (BEA): Annual data on personal income, labor and capital remuneration, proprietors' employment, and population.
- Bureau of Labor Statistics (BLS): Data on unemployment and prices
- U.S. Census Bureau: Data on population
- Office of Federal Housing Enterprise Oversight (OFHEO): Housing price index (HPI)
- LoanPerformance: Mortgage delinquencies (percent of subprime loans that are 60 or more days delayed in payment) from LoanPerformance at four different points in time (February 2005, 2006 and 2007 and November 2007).

Adjustment for Change in Metropolitan Area Definitions

The definitions of MAs change over time, both because of change in administrative standards and, more often, because of the dynamic nature of cities. OMB operated a major change in the definitions in 2003, and HMDA incorporated this change into its requirements in 2004. Hence, it is necessary to adjust the aggregation of data to reflect these changes in definitions to make sure that data are consistent pre- and post-2004. Further harmonization of metropolitan area definitions is necessary as some sources use different codes.

The new codes identify physical MAs as Core-Based Statistical Areas (CBSAs). A CBSA can span more than one state but always covers counties in their entirety without splitting them. Large areas such as New York-Newark-Bridgeport (NY-NJ-CT-PA) are in turn

subdivided into Metropolitan Divisions (MDs) in order to maintain a more comparable area size. MDs, too, are made up of whole counties. The only exception to this rule is the New England City and Town Areas (NECTAs) used by BLS. Due to historical reasons, New England city boundaries are administratively allowed to cut across counties. It is therefore impossible to match NECTA borders to CBSA and MD codes; while there are CBSA codes for Boston and other NECTAs, the Census Bureau warns that these codes represent statistical artifacts that do not match exactly the actual borders. For this reason, unemployment and inflation figures for NECTAs have been imputed without adjustment to the corresponding CBSAs (hence, at the highest level of aggregation to minimize errors). LoanPerformance data, excluding the November 2007 version, are expressed using the 1999 codes. At a first approximation, in the 1999 codebook CBSAs were replaced by Consolidated Metropolitan Statistical Areas (CMSAs) and MDs were replaced by Primary Metropolitan Statistical Areas (PMSAs). In order to fit PMSA-based data to our dataset, the data were merged to single counties according to their former PMSA; CBSA values were then calculated by averaging the value taken by each of the counties constituting the CBSA. This way it was possible to have a continuous and consistent series where one PMSA has been split into two CBSAs in the new codes, or vice versa. However, some of the seventy new MAs of the 2003 definition are new areas, that only recently reached the metropolitan area threshold, and therefore these areas have been excluded.

HMDA data always report the county where the property is located, and therefore it was possible to associate the 2003 definitions with pre-2004 data. We recreate two artificial, coherent "CBSA" and "MD" variables for the individual data in all seven years. Of course, the pre-2004 coverage of MAs created in 2004 is not complete, as local institutions were deemed to be rural and therefore not required to file under HMDA. On the other hand, a large part of lending in non-metropolitan cities is still carried out by lenders that are required to file so we include these observations.

Lobbying Expenditures

In addition to campaign contributions to officials and candidates for election purposes, companies, labor unions, and other organizations spend billions of dollars each year to lobby incumbent members of Congress and of federal agencies. Some special interests hire lobbying firms; others have lobbyists working in-house. We compile the dataset on lobbying expenditures using two sources: (i) the website of the Center for Responsive Politics (CRP) (www.crp.org) and (ii) website of the Senate's Office of Public Records (SOPR) -- http://www.senate.gov/legislative/Public_Disclosure/LDA_reports.htm. The data are based on the semi-annual lobbying disclosure reports filed with the SOPR and posted to their website. We focus on the reports covering lobbying activity that took place from 1999 through 2006.

The website of the CRP provides information on the lobbying expenditures as well as the general issues with which lobbying is associated. The information however, is not user-friendly (e.g. one has to click on each firm name to get the details), and often has to be cross-checked with individual lobbying reports which are publicly available in pdf format on the website of the SOPR. Moreover, the CRP does not provide information on the specific

issues (or particular regulations) with which the lobbying is associated. We extract the entire lobbying database from the CRP website (comprising about 16,000 unique firms over 1999-2006, with a maximum of around 9,000 firms in any one year) and use it for the matching process with HMDA database. For the matched firms (around 250), we go over the individual pdf reports to extract detailed information including specific issues.

The Lobbying Disclosure Act (LDA) of 1995 requires lobbying firms and organizations to register and file reports of their lobbying activities with the Secretary of the Senate and the Clerk of the House of Representatives. In general, it requires registration by any individual lobbyist (or the individual's employer if it employs one or more lobbyists) within 45 days after the individual first makes, or is employed or retained to make, a lobbying contact with either the President, the Vice President, a Member of Congress, or any other specified Federal officer or employee, including certain high-ranking members of the uniformed services.

A registrant must file a report for the semiannual period when registration initially occurred and for each semiannual period thereafter, including the period during which registration terminates. Lobbying firms, i.e., entities with one or more lobbyists, including self-employed individuals who act as lobbyists for outside clients, are required to file a separate report for each client covered by a registration. Organizations employing in-house lobbyists file a single report for each semiannual period. The semiannual report is required to be filed no later than 45 days after the end of a semiannual period beginning on the first day of January and the first day of July of every year in which a registrant is registered. LDA requires the Secretary of the Senate and the Clerk of the House of Representatives to make all registrations and reports available to the public as soon as practicable after they are received.

Under Section 3(10) of the LDA, an individual is defined as a “lobbyist” with respect to a particular client if he or she makes more than one lobbying contact (i.e. more than one communication to a covered official) and his or her “lobbying activities” constitute at least 20 percent of the individual's time in services for that client over any six-month period. “Lobbying activity” is defined in Section 3(7) of the LDA as “lobbying contacts or efforts in support of such contacts, including background work that is intended, at the time it was performed, for use in contacts, and coordination with the lobbying activities of others”.

Lobbying firms are required to provide a good-faith estimate rounded to the nearest $20,000 of all lobbying-related income in each six-month period. Likewise, organizations that hire lobbyists must provide a good-faith estimate rounded to the nearest $20,000 of all lobbying-related expenditures in a six-month period. An organization or a lobbying firm that spends less than $10,000 in any six-month period does not have to state its expenditures. In those cases, CRP treats the figure as zero.

Annual lobbying expenditures and incomes (of lobbying firms) are calculated by adding mid-year totals and year-end totals. Whenever a lobbying report is amended, income/expense figures from the amendment are generally used instead of those from the original filing. Often, however, CRP staff determines that the income/expenditures on the amendment or termination report are inaccurate. In those instances, figures from the original filing are used.

Occasionally, income that an outside lobbying firm reports receiving from a client is greater than the client's reported lobbying expenditures. Many such discrepancies can be explained due to filer error. In cases not already resolved in previous reports and where the discrepancy exceeds the $20,000 that can be attributed to rounding, the client's expenditures rather than the lobbying firm's reported income are used. The only exception is when a client reports no lobbying expenditures, while the outside lobbying firm lists an actual payment. In such cases, the figure reported by the lobbying firm is used.

In cases where the data appears to contain errors, official Senate records are consulted and, when necessary, the CRP contacts SOPR or the lobbying organizations for clarification. The CRP standardizes variations in names of individuals and organizations to clearly identify them and more accurately represent their total lobbying expenditures.

In cases where both a parent and its subsidiary organizations lobby or hire lobbyists, the CRP attributes lobbying spending to the parent organization. Therefore, the lobbying totals reported by the CRP for a parent organization may not reflect its original filing with the Senate, but rather the combined expenditures of all related entities.

However, to calculate lobbying expenditures by sector and industry, each subsidiary is counted within its own sector and industry, not those of its parent. The CRP makes this distinction when it has the information necessary to distinguish some or all of the subsidiary's lobbying expenditures from either the subsidiary's own filing or from the receipts reported by outside lobbying firms. For example, tobacco giant Altria Group owns Kraft Foods. Although Altria Group's original filing includes lobbying for Kraft in its expenditures, in the dataset the CRP isolates Kraft's payments to outside lobbyists and includes them in ‘Food Processing and Sales’.

When companies merge within any two-year election cycle, their lobbying expenditures are combined and attributed to the new entity. This is done in order to correlate lobbying data to campaign contribution data for each particular organization and industry.

In addition to firms’ own lobbying expenditures, we also include lobbying expenditures by finance, insurance, real estate trade associations; that is, we are interested in associations such as the Electronic Check Clearing House Organization (ECCHO) or the Financial Services Roundtable. To split the total association expenditures among the various association members, we first obtain membership information from approximately 150 association websites. For example, according to the ECCHO website, there are more than 2200 members including Bank of America, Citibank, and SunTrust. Next, a share of the associations’ lobbying expenditures is assigned to each member firm. This share is calculated as the member firm’s own lobbying expenditures divided by the sum of all association members’ lobbying expenditures. Then, for each firm and each year, the firm’s share is multiplied by the association’s total lobbying expenditures so that the association lobbying expenditures are distributed across all of the member firms.

Interestingly, the LDA also requires the organization to state the issues on which the registrant engaged in lobbying during the reporting period. Table A1 shows 76 issues, of which at least one has to be entered by the registrant/filer. The filer can list more than one issue. In that case, she has to use a separate page of the form for each code selected.

For each general issue, the filer is also required to list the specific issues which were lobbied for during the semi-annual period. For example, specific bills before Congress or specific executive branch actions are required to be listed in the form.

Table A2 shows a sample form filed by Bear Stearns for lobbying activity between July 1 – December 31, 2007; Table A3 shows a sample form filed by Bank of America for lobbying activity between July 1 – December 31, 2006. Only three selected pages of each form are shown. Page 1 of the form shows the name and details of each company, the time period covered by the report and the expenses incurred by each company relating to lobbying activity during this period (for Bear Stearns, expenses were $500,000, and for Bank of America, $1,020,000). The lobbying expenditure is listed only once on the first page of the form and the amount is not split among the issues. The other two pages of the forms show general issues for which the companies engaged in lobbying activity (Bear Stearns: Banking and Bankruptcy; Bank of America: Banking and Housing).

Specific House and Senate Bills of Interest

We focus on five general lobbying issues: Accounting, Banking, Bankruptcy, Housing, and Financial Institutions. Moreover, certain House and Senate bills are of particular interest since they promote either tight or lax restrictions in these five general areas of interest.

Bills that introduce tight restrictions for lenders focus primarily on predatory lending practices[45] and high-cost mortgages[46]. For example, many bills contain restrictions/limits on annual percentage rates for mortgages, negative amortization, pre-payment penalties, balloon

[45] While there is no single legal definition of predatory lending practices, the U.S. Department of Housing and Urban Development offers the following examples as predatory lending practices by creditors: 1) charging unnecessary fees; 2) lending more money than a borrower could repay; 3) encouraging borrowers to lie on credit applications; 4) changing the terms of the loan at closing; 5) signing blank loan paperwork; and 6) charging higher fees based on a consumer's race and not on a consumer's credit history. (Please see http://www.hud.gov/offices/hsg/sfh/buying/loanfraud.cfm for more information.) For additional information, please see the National Conference on State Legislatures' website (http://www.ncsl.org/programs/banking/predlend_intro.htm) for an overview of the predatory lending practices outlawed by each state legislature.

[46] High-cost mortgages are often defined as mortgages that have annual percentage rates (APRs) that exceed the APR on Treasury securities by a certain number of percentage points. For example, the Predatory Lending Consumer Protection Act of 2002 (S. 2438) amended the Home Ownership Equity Protection Act to define high cost first mortgages as either 1) mortgages with APRs that are six percentage points above the Treasury security APR or 2) mortgages where the total cost of points and fees is greater than five percent of the total loan amount or $1000.

payments, late fees, and/or the financing of mortgage points and fees. Expanded consumer disclosure requirements regarding high-cost mortgages (such as including the total cost of lender fees on loan settlement paperwork or disclosing to consumers that they are borrowing at a higher interest rate) are introduced in some of the bills.

Many of the bills prohibit high-cost mortgage lenders from engaging in other unfair or deceptive practices. Creditors are to evaluate each consumer's ability to repay a loan before making the loan, and one bill stipulates that mortgage debt is not to exceed 50 percent of an individual's income, and income is to be verified. Creditors are not to encourage consumers to default on loans; moreover, mortgage lenders and other creditors must report their consumers' payment histories to credit reporting agencies. High-cost mortgage lenders may not accelerate a consumer's debt if the consumer is making payments on time. In addition, individuals who provide mortgage lending or brokerage services must be adequately trained in high-cost lending. Civil penalties for engaging in predatory lending practices are increased.

Some of the bills that firms and/or associations lobby for are closely related as it is common for various versions of the same bill to come in front of the House/Senate in the legislative process. To exploit any information that might be contained in the number of times a specific issue is discussed, we identify groups of bills that have the same name (or very similar names) and/or contain essentially the same language. For example, we consider the following bills to be a group: S. 2415: Predatory Lending Consumer Protection Act of 2000; H.R. 4250: Predatory Lending Consumer Protection Act of 2000; S. 2438: Predatory Lending Consumer Protection Act of 2002; H.R. 1051: Predatory Lending Consumer Protection Act of 2001. Once the related bills are grouped, we count the total number of times an individual bill or at least one of the bills in a group was listed as a specific issue of interest by either firms or associations. Based on these counts, we rank the "popularity" of the bills and groups of bills. The first 19 spots in the ranking are groups of bills, while S. 900 (the Gramm-Leach-Bliley Act) is the most common individual bill for which firms and/or associations lobby. We have one ranking for all of the bills and groups of bills; the other ranking is only for the top 100 most common bills or groups of bills. We use these counts and rankings as weights to split the total lobbying expenditure. Essentially, the firms' lobbying expenditure is multiplied by the count and the two rank variables to produce three scaled lobbying expenditure variables.

The following bulleted list offers greater detail on each of the specific bills that promote tighter mortgage market restrictions:

- **H.R. 1051: Predatory Lending Consumer Protection Act of 2001**
    - Introduced March 15, 2001; Never passed by House or Senate; Never signed into law
    - H.R. 1051 amends the Truth in Lending Act regarding allowable annual percentage rates, total points and fees, pre-payment penalties, and balloon payments for high cost mortgages. The bill also requires additional disclosures to consumers and restricts high-cost mortgage creditors in financing mortgage points and fees and from accelerating a consumer's debt

or from encouraging consumer default. Consumers must fulfill a credit counseling requirement.

- **H.R. 1163: Predatory Mortgage Lending Practices Reduction Act**
  - Introduced April 8, 2003; Never passed by House or Senate; Never signed into law
  - H.R. 1163 requires that any individual who provides mortgage lending or brokerage services be adequately trained in subprime lending. The bill also includes subprime lender requirements and prohibitions and penalties for unfair and deceptive practices. Furthermore, H.R. 1163 extends grants to community organizations offering education on subprime or illegal lending practices.

- **H.R. 1182: Prohibit Predatory Lending Act 2005**
  - Introduced March 9, 2005; Never passed by House or Senate; Never signed into law
  - H.R. 1182 defines high-cost mortgages as 1) any primary mortgage with an interest rate eight percentage points above the yield on Treasury securities or 2) any secondary mortgage with an interest rate ten percentage points above the yield on Treasury securities. The bill addresses the calculation of points and pre-payment penalties; furthermore, it contains restrictions on balloon payments and late fees and prohibits debt acceleration. Additionally, H.R. 1182 prevents lenders from extending to credit to individuals who do not have the ability to repay the debt. For example, mortgage debt is not to exceed 50 percent of an individual's income, and income is to be verified by pay stubs, tax returns, etc.

- **H.R. 1295: Responsible Lending Act**
  - Introduced March 15, 2005; Never passed by House or Senate; Never signed into law
  - H.R. 1295 defines "higher-cost mortgage" and includes requirements for mortgage product evaluation software and appraisals for properties secured by higher-cost mortgages. In addition, mortgage pamphlets distributed to consumers are to be updated and simplified and explain topics such as balloon payments, escrow accounts, and consumer responsibilities; furthermore, information should be provided in multiple languages and formats to reach vulnerable populations.

- **H.R. 1865: Prevention of Predatory Lending Through Education Act**
  - Introduced April 29, 2003; Never passed by House or Senate; Never signed into law
  - Under H.R. 1865, the Secretary of Housing and Urban Development is to award grants to state and local governments and non-profit organizations so that they may counsel and educate consumers on predatory lending practices.

- **H.R. 3607: Protecting Our Communities From Predatory Lending Practices Act**

- Introduced December 20, 2001; Never passed by House or Senate; Never signed into law
- H.R. 3607 prohibits unfair or deceptive practices and statements regarding consumer credit transactions, applications, etc. In addition, the bill includes provisions that prohibit certain practices involving a consumer's dwelling; that is, practices such as flipping consumer loans, financing credit insurance, charging fees for services not provided, and others are prohibited.

- **H.R. 3807: Predatory Mortgage Lending Practices Reduction Act**
  - Introduced February 27, 2002; Never passed by House or Senate; Never signed into law
  - Please see H.R. 1163.

- **H.R. 3901: Anti-Predatory Lending Act of 2000**
  - Introduced March 9, 2000; Never passed by House or Senate; Never signed into law
  - H.R. 3901 adds the following disclosure requirement to the Home Mortgage Disclosure Act of 1975: "the annual percentage rate of mortgage loans and home improvement loans originated by the institution grouped according to census tract, income level, racial characteristics, and gender." The bill restricts certain rates and fees and mandates that any borrower who would like to obtain a high-cost mortgage complete home ownership counseling. Pre-payment penalties, negative amortization, flipping home loans, extending credit without regard to ability to repay, encouraging default, payments to appraisers by creditors, and creditor-financing of credit insurance are disallowed.

- **H.R. 3915: Mortgage Reform and Anti-Predatory Lending Act of 2007**
  - Introduced October 22, 2007; Passed by House November 15, 2007; Never passed by Senate; Never signed into law
  - H.R. 3915 introduces licensing and training requirements for individuals wishing to become loan originators. In addition, the bill stipulates that certain federal agencies are to regulate mortgage lenders so that they do not encourage borrowers from taking on loans that they do not have the ability to repay. Good faith estimates must include the total loan amount, the type and length of the loan, the annual percentage rate, the total estimated monthly payment, the percentage the monthly payment is of the borrower's monthly income, and other disclosures.

- **H.R. 4213: Consumer Mortgage Protection Act of 2000**
  - Introduced April 6, 2000; Never passed by House or Senate; Never signed into law
  - The Consumer Mortgage Protection Act of 2000 revises regulations on fees, points, closing costs, annual percentage rates, and pre-payment penalties. Creditors are not to encourage consumers to default on loans and must report quarterly to credit bureaus on the status of consumer loans.

- **H.R. 4250: Predatory Lending Consumer Protection Act of 2000**
  - Introduced April 12, 2000; Never passed by House or Senate; Never signed into law
  - H.R. 4250 requires additional disclosures to consumers who are applying for high-cost mortgages to warn them regarding the higher interest rates and the risks associated with high-cost mortgages. Pre-payment penalties, balloon payments, and the financing of points and fees are restricted. Creditors must evaluate each consumer's ability to repay the loan, and creditors must not encourage a consumer to default on the loan.

- **H.R. 4471: Fair and Responsible Lending Act**
  - Introduced December 8, 2005; Never passed by House or Senate; Never signed into law
  - H.R. 4471 regulates fees, payments, and other costs associated with high-cost home loans. The bill requires that a consumer considering a high-cost mortgage attend credit counseling services. Computer software programs designed to help consumers choose among mortgage products must be certified by the Secretary of Housing and Urban Development.

- **H.R. 4818: Mortgage Loan Consumer Protection Act**
  - Introduced May 22, 2002; Never passed by House or Senate; Never signed into law
  - H.R. 4818 requires disclosure of lenders' fees on settlement paperwork and prohibits lenders from charging certain loan fees.

- **H.R 833: Responsible Lending Act**
  - Introduced February 13, 2003; Never passed by House or Senate; Never signed into law
  - See also H.R. 1295. H.R. 833 defines high cost mortgages, points, and fees. The bill also creates the Consumer Mortgage Protection Board to offer grants to organizations providing homeownership/rental counseling. Mortgage broker guidelines and requirements are also included in the bill.

- **S. 2415: Predatory Lending Consumer Protection Act of 2000**
  - Introduced April 12, 2000; Never passed by House or Senate; Never signed into law
  - S. 2415 amends the Truth in Lending Act regarding annual percentage rates, total points and fees, pre-payment penalties, and balloon payments for high cost mortgages. The bill also requires additional consumer disclosures and restricts high-cost mortgage creditors from financing mortgage points and fees and from accelerating a consumer's debt or from encouraging consumer default. High-cost mortgage lenders must report their consumers' payment histories to credit reporting agencies. Civil penalties and the statute of limitations are increased.

- **S. 2438: Predatory Lending Consumer Protection Act of 2002**
    - Introduced May 1, 2002; Never passed by House or Senate; Never signed into law
    - S. 2438 amends the Truth in Lending Act regarding high cost mortgages; as such, the bill requires additional disclosures to the consumer, prohibits balloon payments and prepayment penalties, and limits the points/fees a lender may charge for high cost mortgages. Creditors must report a consumer's payment history/status to consumer reporting agencies.

A second group of bills introduces lax restrictions for lenders in the general issue of Housing. In general, these bills use a wide array of tools including lower down-payment requirements; state and local grant funding to provide down-payment assistance for certain borrowers; hybrid adjustable rate mortgage programs; revised mortgage insurance premiums and cancellation policies; and financial assistance when purchasing homes in high-crime areas or low-income areas. Another channel through which these bills incorporate lax housing regulations is relaxing restrictions on Federal Housing Administration (FHA) loans and oversight of the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac), and the Federal Home Loan Banks.

The following bulleted list offers greater detail on each of the bills in this category:

- **H.R. 1276: American Dream Downpayment Act**
    - Introduced March 13, 2003; Passed by House October 1, 2003; Never passed by Senate; Never signed into law
    - H.R. 1276 amends the Cranston-Gonzalez National Affordable Housing Act and offers down-payment assistance to certain low-income individuals, first-time home buyers, uniformed employees, or teachers through the use of grants to state and local governments.

- **H.R. 1461: Federal Housing Finance Reform Act of 2005**
    - Introduced April 5, 2005; Passed by House October 26, 2005; Never passed by Senate; Never signed into law
    - The Federal Housing Finance Reform Act of 2005 creates the Federal Housing Finance Agency (FHFA) which would have oversight of Freddie Mac, Fannie Mae, and Federal Home Loan Banks. FHFA would become the single regulator for Freddie Mac and Fannie Mae; the Department of Housing and Urban Development would no longer have oversight. The bill requires Freddie Mac and Fannie Mae to set aside funds directed at increasing homeownership among low-income individuals or in low-income areas.

- **H.R. 1629: FHA Multifamily Housing Mortgage Loan Limit Adjustment Act of 2001**
    - Introduced April 26, 2001; Never passed by House or Senate; Never signed into law
    - H.R. 1629 would increase the mortgage loan limits for multifamily housing mortgage insurance.

- **H.R. 176: FHA Single Family Loan Limit Adjustment Act of 2005**
  - Introduced January 4, 2005; Never passed by House or Senate; Never signed into law
  - H.R. 176 increases the amount that can be insured under FHA mortgages in high-cost areas.

- **H.R. 1776: American Homeownership and Economic Opportunity Act of 2000**
  - Introduced May 12, 1999; Passed by House April 6, 2000; Never passed by Senate; Never signed into law
  - H.R. 1776 makes grants available to states and local governments and requires any community development block grant applicant to make an honest effort to reduce barriers to homeownership. The bill extends loan terms for manufactured home lot purchases, lowers down-payment requirements for home purchases, and offers other forms of down-payment assistance for teachers and public safety officers. Hybrid adjustable rate mortgage programs and financial assistance when purchasing homes in high-crime areas are also included.

- **H.R. 2589: Mark-to-Market Extension Act of 2001**
  - Introduced July 23, 2001; Passed by House September 24, 2001; Never passed by Senate; Never signed into law
  - H.R. 2589 revises Section 8 and other multifamily housing mortgage assistance programs. For example, vouchers, rent restructuring, "look-back" project eligibility, and housing insurance restructuring programs are included. The mark-to-market program is extended through 2006.

- **H.R. 3206: Home Ownership Expansion and Opportunities Act of 2001**
  - Introduced November 1, 2001; Never passed by House or Senate; Never signed into law
  - H.R. 3206 permits the Government National Mortgage Association to guarantee securities through the use of certain conventional mortgages.

- **H.R. 3755: Zero Downpayment Act of 2004**
  - Introduced February 3, 2004; Never passed by House or Senate; Never signed into law
  - H.R. 3755 would permit the Department of Housing and Urban Development to insure single family primary residences for first-time homebuyers who do not make a down-payment. Applicants must participate in mortgage counseling, and in certain circumstances, foreclosure prevention counseling. No more than ten percent of the mortgages held by the Federal Housing Administration may qualify for this program.

- **H.R. 4110: FHA Single Family Loan Limit Adjustment Act of 2004**
  - Introduced April 1, 2004; Never passed by House or Senate; Never signed into law

- Please see H.R. 176

- **H.R. 5121: Expanding American Ownership Act of 2006**
  - Introduced April 6, 2006; Passed by House July 25, 2006; Never passed by Senate; Never signed into law
  - H.R. 5121 raises the maximum insurable amount of a home to be equal to the full median price of area homes. With regards to FHA mortgage loans, the bill extends the maximum length of the loan from 35 to 40 years and removes the requirement of a three percent down-payment. H.R. 5121 also revises the mortgage insurance premium structure.

- **H.R. 5503: FHA Multi Family Loan Limit Adjustment Act**
  - Introduced May 25, 2006; Passed by House September 27, 2006; Never passed by Senate; Never signed into law
  - H.R. 5503 increases the FHA loan limits in high cost areas for the following types of housing: rental, cooperative, rehabilitation, neighborhood conservation, moderate income, displaced family, condominiums, and housing for the elderly.

- **H.R. 5640: American Homeownership and Economic Opportunity Act of 2000**
  - Introduced December 5, 2000; Passed by House December 5, 2000; Passed by Senate December 7, 2000; Signed into law December 27, 2000
  - H.R. 5640 affords greater protection to consumers with regards to mortgage insurance cancellations and offers grants to provide downpayment assistance to Section 8 tenants. The bill addresses standards for manufactured homes and eliminates the National Manufactured Home Advisory Council. Programs and services related to rural housing and housing for the elderly or for disabled families are also included.

- **H.R. 811: American Dream Downpayment Act**
  - Introduced April 8, 2003; Passed by Senate November 24, 2003; Passed by House December 8, 2003; Signed into law December 16, 2003
  - H.R. 811 amends the Cranston-Gonzalez National Affordable Housing Act and offers down-payment assistance to low-income, first-time home buyers through the use of grants to state and local governments. The bill revises certain criteria for hybrid adjustable rate mortgages and increases the loan limits for FHA multifamily loans.

- **S. 1163: FHA Multifamily Housing Mortgage Loan Limit Adjustment Act of 2001**
  - Introduced July 11, 2001; Never passed by House or Senate; Never signed into law
  - S. 1163 increases mortgage loan limits for multifamily housing mortgage insurance.

- **S. 1620: Home Ownership Expansion Act of 2001**

  - Introduced November 1, 2001; Never passed by House or Senate; Never signed into law
  - S. 1620 would permit the guaranteeing of conventional mortgage-backed securities.

- **S. 2169: PROMISE (Promoting Refinancing Opportunities for Mortgages Impacted by the Subprime Emergency) Act of 2007**
  - Introduced October 16, 2007; Never passed by House or Senate; Never signed into law
  - S. 2169 gives the Director of the Office of Federal Housing Enterprise Oversight of the Department of Housing and Urban Development authority to suspend, modify or lift the limitation on growth provision in the Fannie Mae Consent Decree and the voluntary temporary growth limitation in the Freddie Mac Letter. The Director also is authorized to increase the mortgage portfolio limitations of both Fannie Mae and Freddie Mac by at least 10 percent. The bill then stipulates that 85 percent of this increase should be set aside for refinancing subprime mortgages that are at risk of foreclosure. The definition of subprime mortgages is at the discretion of the Director.

- **S. 3535: Expanding American Homeownership Act of 2006**
  - Introduced June 19, 2006; Never passed by House or Senate; Never signed into law
  - See also H.R. 5121. S. 3535 introduces various changes to conforming loan limits, loan terms, cash investment requirements, mortgage insurance premiums, insurance for condominiums, and insurance for manufactured homes.

A third set of bills introduces tight regulations for lenders in areas not directly related to mortgages and are not included among the specific issues of interest.

Matching Procedure

The matching of the lobbying and HMDA databases is a tedious task that needs to be done manually using company names. We start with all the companies in the lobbying database and perform a first stage of matching with HMDA based on company names. Then, we go through the unmatched companies filing lobbying expense reports one by one manually to mark any mergers and acquisitions (or other events) that might have induced a name change. Once we obtain a list of previous and current names for each company, we apply a second-stage matching based on an algorithm that finds potential matches by searching for common words in the name strings. After the algorithm narrows down the potential matches of lobbying firms among the HMDA lenders, we go through the list one by one once again to determine the right match.

In order to be able to capture the full extent of the lobbying activities carried out by an entity, we meticulously examine the corporate structure of the firms that appear in the lobbying database and that might be matched to particular HMDA lenders based on our algorithm.

This is because, in many cases, we encounter firms that are not exactly the same but are linked in a corporate sense. Based on the affiliation between the lobbying company and the matches, we enter the lobbying amounts under four different variables: amount spent by the lender itself, amount spent by the lender's parent company, amount spent by the lender's affiliates, and amount spent by the lender's subsidiary. To illustrate with an example, Countrywide Financial Corp is a bank-holding company that owns Countrywide Home Loans, Inc., Countrywide Bank N.A., Countrywide Mortgage Ventures, LLC, and Countrywide Real Estate Finance. Both Countrywide Financial Corp and Countrywide Home Loans, Inc. report lobbying expenses and all subsidiaries of Countrywide Financial Corp but not the bank-holding company itself, file HMDA information. In this case, we enter the lobbying expense of Countrywide Financial Corp as that of the "parent" in our merged database for all the subsidiaries. The amount spent by Countrywide Home Loans, Inc. is recorded as the lender's own lobbying expense ("self") while the same amount is entered as that of the "sister" for the other affiliates in the HMDA database. Although it is not the case in this example, it is also possible that the firm filing the lobbying expense report might be a subsidiary while the parent company does not appear in the lobbying database but only in the HMDA database. Such cases are recorded in the form of a fourth variable, lobbying expense of the "child". If there are no parent companies or affiliates or subsidiaries or the company itself does not appear in the lobbying database, the corresponding lobbying variable is set to zero.

Table A1: List of Issues

Code	Issue
ACC	Accounting
ADV	Advertising
AER	Aerospace
AGR	Agriculture
ALC	Alcohol & Drug Abuse
ANI	Animals
APP	Apparel/Clothing Industry/Textiles
ART	Arts/Entertainment
AUT	Automotive Industry
AVI	Aviation/Aircraft/ Airlines
BAN	Banking
BNK	Bankruptcy
BEV	Beverage Industry
BUD	Budget/Appropriations
CHM	Chemicals/Chemical Industry
CIV	Civil Rights/Civil Liberties
CAW	Clean Air & Water (Quality)
CDT	Commodities (Big Ticket)
COM	Communications/ Broadcasting/ Radio/TV
CPI	Computer Industry
CSP	Consumer Issues/Safety/ Protection
CON	Constitution
CPT	Copyright/Patent/ Trademark

Table A1: List of Issues

Code	Issue
DEF	Defense
DOC	District of Columbia
DIS	Disaster Planning/Emergencies
ECN	Economics/Economic Development
EDU	Education
ENG	Energy/Nuclear
ENV	Environmental/Superfund
FAM	Family Issues/Abortion/ Adoption
FIRE	Firearms/Guns/ Ammunition
FIN	Financial Institutions/Investments/ Securities
FOO	Food Industry (Safety, Labeling, etc.)
FOR	Foreign Relations
FUE	Fuel/Gas/Oil
GAM	Gaming/Gambling/ Casino
GOV	Government Issues
HCR	Health Issues
HOU	Housing
IMM	Immigration
IND	Indian/Native American Affairs
INS	Insurance
LBR	Labor Issues/Antitrust/ Workplace
LAW	Law Enforcement/Crime/ Criminal Justice
MAN	Manufacturing
MAR	Marine/Maritime/ Boating/Fisheries
MIA	Media (Information/ Publishing)
MED	Medical/Disease Research/ Clinical Labs
MMM	Medicare/Medicaid
MON	Minting/Money/ Gold Standard
NAT	Natural Resources
PHA	Pharmacy
POS	Postal
RRR	Railroads
RES	Real Estate/Land Use/Conservation
REL	Religion
RET	Retirement
ROD	Roads/Highway
SCI	Science/Technology
SMB	Small Business
SPO	Sports/Athletics
TAX	Taxation/Internal Revenue Code
TEC	Telecommunications
TOB	Tobacco
TOR	Torts
TRD	Trade (Domestic & Foreign)

Table A2: Lobbying Report Filed by Bear Stearns

Clerk of the House of Representatives	Secretary of the Senate
Legislative Resource Center	Office of Public Records
B-106 Cannon Building	232 Hart Building
Washington, DC 20515	Washington, DC 20510

Secretary of the Senate
Received: Feb 04, 2008

LOBBYING REPORT

Lobbying Disclosure Act of 1995 (Section 5) - **All Filers Are Required To Complete This Page**

1. Registrant Name:

BEAR STEARNS & CO

2. Address:
383 MADISON AVE, NEW YORK, NY 10179

3. Principal place of business (if different from line 2):

4. Contact Name: NANCY LOPEZ
Telephone: 9737932267
E-mail (optional): nancy.lopez@bear.com

Senate ID #: 5701-12
House ID #:

7. Client Name: ☒ Self

TYPE OF REPORT

8. Year 2007 Midyear (January 1 - June 30): ☐ **OR** Year End (July 1 - December 31): ☒

9. Check if this filing amends a previously filed version of this report: ☐

10. Check if this is a Termination Report: ☐ => Termination Date: 11. No Lobbying Activity: ☐

INCOME OR EXPENSES

Complete Either Line 12 **OR** Line 13

12. Lobbying Firms

INCOME relating to lobbying activities for this reporting period was:

Less than $10,000: ☐

$10,000 or more: ☐ => Income (nearest $20,000):_____

Provide a good faith estimate, rounded to the nearest $20,000, of all lobbying related income from the client (including all payments to the registrant by any other entity for lobbying activities on behalf of the client).

13. Organizations

EXPENSES relating to lobbying activities for this reporting period were:

Less than $10,000: ☐

$10,000 or more: ☒ => Expenses (nearest $20,000): 500,000.00

14. Reporting Method.
Check box to indicate expense accounting method. See instructions for description of options.

☐ **Method A.** Reporting amounts using LDA definitions only
☐ **Method B.** Reporting amounts under section 6033(b)(8) of the Internal Revenue Code
☒ **Method C.** Reporting amounts under section 162(e) of the Internal Revenue Code

Registrant Name: BEAR STEARNS & CO Client Name: Self

LOBBYING ACTIVITY.

Select as many codes as necessary to reflect the general issue areas in which the registrant engaged in lobbying on behalf of the client during the reporting period. Using a separate page for each code, provide information as requested. Attach additional page(s) as needed.

15. General issue area code: BAN (one per page)

16. Specific lobbying issues:

H.R. 3915 The Mortgage Reform and Anti-Predatory Lending Act of 2007. Worked to change provision of the legislation related to lending and securitization standards. H.R. 4178 Emergency Mortgage Loan Modification Act of 2007. Advocated the concepts in the proposal but not the proposal.

17. House(s) of Congress and Federal agencies contacted:
HOUSE OF REPRESENTATIVES

18. Name of each individual who acted as a lobbyist in this issue area:

Name: O'NEILL, MARY LYNN
Covered Official Position (if applicable): N/A

19. Interest of each foreign entity in the specific issues listed on line 16 above.**None**

Table A3: Lobbying Report Filed by Bank of America

Clerk of the House of Representatives	Secretary of the Senate
Legislative Resource Center	Office of Public Records
B-106 Cannon Building	232 Hart Building
Washington, DC 20515	Washington, DC 20510

Secretary of the Senate
Received: Feb 13, 2007

LOBBYING REPORT

Lobbying Disclosure Act of 1995 (Section 5) - **All Filers Are Required To Complete This Page**

1. Registrant Name:

BANK OF AMERICA

2. Address:
1909 K STREET NW, SUITE 710, WASHINGTON, DC 20006

3. Principal place of business (if different from line 2):

4. Contact Name: JOHN E. COLLINGWOOD
Telephone: 2023510111
E-mail (optional): nwerren@stateandfed.com

Senate ID #: 26400-12
House ID #:

7. Client Name: ☒ Self

TYPE OF REPORT

8. Year 2006 Midyear (January 1 - June 30): ☐ **OR** Year End (July 1 - December 31): ☒

9. Check if this filing amends a previously filed version of this report: ☐

10. Check if this is a Termination Report: ☐ => Termination Date: 11. No Lobbying Activity: ☐

INCOME OR EXPENSES

Complete Either Line 12 **OR** Line 13

12. Lobbying Firms

INCOME relating to lobbying activities for this reporting period was:

Less than $10,000: ☐

$10,000 or more: ☐ => Income (nearest $20,000):_____

Provide a good faith estimate, rounded to the nearest $20,000, of all lobbying related income from the client (including all payments to the registrant by any other entity for lobbying activities on behalf of the client).

13. Organizations

EXPENSES relating to lobbying activities for this reporting period were:

Less than $10,000: ☐

$10,000 or more: ☒ => Expenses (nearest $20,000): 1,020,000.00

14. Reporting Method.
Check box to indicate expense accounting method. See instructions for description of options.

☒ **Method A.** Reporting amounts using LDA definitions only
☐ **Method B.** Reporting amounts under section 6033(b)(8) of the Internal Revenue Code
☐ **Method C.** Reporting amounts under section 162(e) of the Internal Revenue Code

Registrant Name: BANK OF AMERICA Client Name: Self

LOBBYING ACTIVITY.

Select as many codes as necessary to reflect the general issue areas in which the registrant engaged in lobbying on behalf of the client during the reporting period. Using a separate page for each code, provide information as requested. Attach additional page(s) as needed.

15. General issue area code: BAN (one per page)

16. Specific lobbying issues:

(3) HR 29, HR 84 HR 744, S. 1608, S. 687: Spyware - General issues/definitions on using unauthorized computer access and consent. (4) No bill number: Electronic Payment Network strategy discussion. General issues related to electronic payments and interchange with banking institutions. (5) No Bill Number: Student Lending (6) No Bill Number: National Standards/OCC Preemption (7) No Bill Number: Gramm-Leach-Bliley Oversight (8) No Bill Number: Issues Related to Industrial Loan Companies (9) Issues related to bank real estate powers: H.R. 2660, H.R. 111, S. 98 (10) Bank Regulatory Relief legislation: H.R. 3505, S.2856 (11) Industrial Loan Companies **|** prevent commercially-owned ILC's from engaging in retail banking activities: H.R. 3505 (regulatory relief bill) (12) Regulatory Relief Bill: HR3505 (13) No Bill Number: Interchange (1) HR 1185: Deposit Insurance Reform. (2) HR 1069, HR 1078, HR 815, HR 3140, HR 3374, HR 3375, HR 3997, HR 4127, S 115, S 751, S 768, S 1216, S 1326, S 1332, S 1408 and S 1594; Data Security Breach; General issues covering data breach, use of social security numbers, and file freezing.

17. House(s) of Congress and Federal agencies contacted:
HOUSE OF REPRESENTATIVES
SENATE

18. Name of each individual who acted as a lobbyist in this issue area:

Name: COLLINGWOOD, JOHN
Covered Official Position (if applicable): N/A
Name: HILL, EDWARD J.
Covered Official Position (if applicable): N/A
Name: MINOT, DARRELL
Covered Official Position (if applicable): N/A

19. Interest of each foreign entity in the specific issues listed on line 16 above.**None**

Registrant Name: BANK OF AMERICA Client Name: Self

LOBBYING ACTIVITY.

Select as many codes as necessary to reflect the general issue areas in which the registrant engaged in lobbying on behalf of the client during the reporting period. Using a separate page for each code, provide information as requested. Attach additional page(s) as needed.

15. General issue area code: HOU (one per page)

16. Specific lobbying issues:

Federal Housing Administration Reform: H.R. 5121, S. 3535

17. House(s) of Congress and Federal agencies contacted:
HOUSE OF REPRESENTATIVES
SENATE

18. Name of each individual who acted as a lobbyist in this issue area:

Name: COLLINGWOOD, JOHN
Covered Official Position (if applicable): N/A
Name: HILL, EDWARD J.
Covered Official Position (if applicable): N/A
Name: MINOT, DARRELL
Covered Official Position (if applicable): N/A

19. Interest of each foreign entity in the specific issues listed on line 16 above.**None**

Table A4. Effect of Lobbying on Loan-to-Income Ratio: Additional Robustness Checks

Dependent variable: Loan-to-income ratio at (lender, MSA, year) level

	[1]	[2]	[3]	[4]	[5]	[6]
	MSA-clusters	**Drop outliers**	**Alternative measure of lobbying expenditures**	**Scaled lobbying expenditures**	**Lobbying expenditures (including associations)**	**Alternative measure of lobbying expenditures II**
(Log lender lobbying expenditures on specific issues)t-1	0.002***	0.002***			0.002***	
	[0.001]	[0.001]			[0.001]	
(Log lender lobbying expenditures on specific issues -- alternative measure)t-1			0.005***			
			[0.001]			
[Log (lender lobbying expenditures on specific issues/assets)]t-1				0.008***		
				[0.000]		
(Log lender lobbying expenditures on specific issues -- alternative measure II)t-1						0.002***
						[0.000]
Log (assets of lender)	0.006***	0.004***	0.006***	0.006***	0.006***	0.006***
	[0.001]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Market share of lender in MSA	3.017***	2.032***	3.011***	3.018***	3.017***	3.017***
	[0.111]	[0.069]	[0.090]	[0.090]	[0.090]	[0.090]
Log (income of applicants of loans originated by lender)	-0.031***	-0.014***	-0.031***	-0.031***	-0.031***	-0.031***
	[0.002]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]
Number of observations	406,035	399,984	406,035	406,035	406,035	406,035
MSA fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Lender fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
MSA*year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Lobbying on specific issues refers to lobbying on bills and regulations related to mortgage lending (such as consumer protection laws) and securitization. In column [2], we drop the top and bottom first percentile of loan-to-income ratio and lobbying expenditures. In column [3], lobbying expenditures on specific issues is estimated by splitting total lobbying expenditures among various issues using share of lobbying reports noting the specific issues as weights. Column [5] uses an alternative measure of lobbying expenditures which includes expenditures by associations to which the lenders are associated. The lobbying expenditure of associations is split among the members in accordance with the size of the lenders. In column [6], we use an alternative measure of lobbying expenditures, which are scaled by a measure of the importance of the law and regulations for which the firm lobbies, giving higher weight to lobbying for laws which appear more often in the lobbying reports. See text for details. Standard errors denoted in parentheses are clustered at the MSA-level in column [1] and lender-MSA level in columns [2]-[5]. ***, ** and * represent statistical significance at 1, 5 and 10 percent, respectively.