The Political Economy of the Subprime Mortgage Credit Expansion

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Abstract

We examine how special interests, measured by campaign contributions from the mortgage industry, and constituent interests, measured by the share of subprime borrowers in a congressional district, may have influenced U.S. government policy towards subprime mortgage credit expansion from 2002 to 2007. Beginning in 2002, mortgage industry campaign contributions increasingly targeted U.S. representatives from districts with a large fraction of subprime borrowers. During the expansion years, mortgage industry campaign contributions and the share of subprime borrowers in a congressional district increasingly predicted congressional voting behavior on housing related legislation. Such patterns do not hold for non-mortgage financial industry. The evidence suggests that both subprime mortgage lenders and subprime mortgage borrowers influenced government policy towards subprime mortgage credit expansion.

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I. Introduction

The U.S. government has played a prominent role in the financial sector since the establishment of the Bank of the United States in 1792. Government intervention, at initiation, is often well intentioned and justified by economic theory. However, once the government is involved in the financial sector, individuals within the economy have strong incentives to tailor government policy toward their own objectives. When government officials respond to constituent and special interests by manipulating policy, the resulting effects for the financial sector are potentially disastrous. For example, Calomiris (2009) argues that "...government subsidies or special rights granted to favored participants in the banking system and the incentive consequences of those subsidies and rights ... has been at the center of the explanation of the propensity of banking crises for the past two centuries."

The importance of understanding how constituent and special interests affect government policy toward the financial sector has been elevated given the U.S. mortgage default crisis. Nominal house prices in the U.S. have fallen over 40 percent and the delinquent mortgage debt has risen to an astonishing $1.5 trillion. There has been extensive debate on whether the U.S. government support for mortgage credit toward low income, low credit quality households was a main contributor to the severity of the 2008-2009 crisis.[1] Although it is beyond the scope of this paper to attempt at settling such debate, we note nonetheless that during the height of the subprime mortgage credit expansion from 2002 to 2007, government support for mortgage lending to subprime borrowers took many forms, with support from both Republican and Democratic fronts. Among the most prominent is the affordable housing mandate imposed by the Department of Housing and Urban Development (HUD) on Freddie Mac and Fannie Mae. However, as we discuss below, there were also prominent bills debated and passed in the U.S. Congress that reduced regulation of subprime lenders and increased mortgage support for low income households. Some of these bills display prominent bipartisan support, stemming from both social policy on the left and an "ownership society" discourse on the

[1] See Leonnig (2008), Barrett (2008), Calomiris and Wallison (2008), and Congleton (2009).

right.[2]

In this study, we examine how both constituent and special interests influenced U.S. government policy toward the housing sector during the subprime mortgage credit expansion.

The direct effect of these interests on government policy is difficult to estimate for a variety of reasons. For example, there were many government organizations with oversight over housing finance and regulation, including the Federal Reserve (consumer protection), HUD, OFHEO (Oversight of Government Sponsored Enterprises, or GSEs, such as Freddie Mac and Fannie Mae), and the United States Congress. Constituent and special interests may influence policy at these various organizations in ways that are undetectable to researchers, such as legislative effort (Hall and Wayman, 1990). In addition, the government efforts themselves are varied, and so it is difficult to isolate a single bill or single action to estimate the effect of constituent and special interests on government policy. Such variety also has advantages however. We can focus our attention on bills that become law, as well as bills that fail but nonetheless incorporate information on congressional alignments.

While these problems present a serious challenge, we are able to provide suggestive evidence that highlights the important role of both constituent and special interests in housing and housing finance public policy during the subprime mortgage credit expansion from 2002 to 2007. Taken together, the results suggest that constituent interests, measured with the fraction of subprime borrowers in a given Congressional district before the subprime mortgage expansion, and special interests, measured with campaign contributions from the mortgage industry, *both* helped to shape government policies that encouraged the rapid growth of subprime mortgage credit.

We begin with an examination of the pattern of campaign contributions toward representatives from districts with a high fraction of subprime borrowers. Notice that for our analysis to be meaningful it is not necessary to assess whether money did buy congressional votes or simply contributions improved the electoral chances of subprime champions. What matters

[2] "Ownership society" is a phrase employed occasionally by President George W. Bush from 2003 onwards, usually in contexts indicating support for property ownership as a channel towards higher civic engagement.

is whether campaign contributions induced heightened congressional support for the mortgage industry, an outcome arising in both scenarios. From 1994 to 2000, mortgage industry campaign contributions toward high subprime representatives are relative steady. However, beginning in the 107th Congress (2001-2002), there is a sharp relative rise in mortgage industry campaign contributions toward representatives from high subprime share districts. The relative increase accelerates through 2006. The magnitude is economically significant: a one standard deviation increase in the fraction of subprime borrowers in a given district leads to an 80 percentage point increase in the growth of mortgage campaign contributions from 2002 to 2006. In contrast, we see no effect for non-mortgage financial industry campaign contributions.

This result demonstrates that the mortgage industry increasingly targeted representatives of subprime borrowers during the subprime lending expansion. An obvious question in light of this finding is: What precise votes are being bought with the money? One difficulty in answering this question is the large number of bills that are related to the housing market and subprime lending: from the 103rd Congress (1993-1994) to the 110th Congress (2007-2008), over 700 roll calls in the House alone were related to "affordable housing," "homeownership," or "subprime" according to the Congressional Research Service.[3] One of the prerequisites for analyzing the determinants of congressional voting behavior is that the competing interests are well defined (Peltzman (1984), (1985)). Unfortunately, it is difficult to consistently define competing interests for such a large number of heterogenous bills.

In light of this difficulty, we adopt an alternative approach to examining voting patterns on each single roll call. We aggregate all roll call votes for any legislation related to subprime lending, affordable housing or homeownership, and we find that the predictive power of mortgage campaign contributions on a representative's voting behavior increases sharply

[3]Starting from the 111th Congress, CRS has moved to a new Subject Terms classification. According to the Library of Congress "Terms assigned to legislation from the 110th and earlier Congresses came from a list that was based upon a thesaurus known as the Legislative Indexing Vocabulary (LIV). CRS plans to convert the LIV terms assigned to bills from the 93rd through the 110th Congresses to the new Subject terms as time and resources permit." We employ the terms "affordable housing," "homeownership," and "subprime" under the old classification.

during the subprime mortgage credit expansion. More specifically, the fraction of votes for which mortgage campaign contributions have an effect on voting patterns that is significantly distinct from zero at the 95% confidence level increases from 3% in the 104th Congress (1995-1996) to around 20% in the 108th Congress (2003-2004). In contrast, over the same time period, there is no discernible trend in the explanatory power of campaign contributions from the non-mortgage financial sector.

However, the story is more complex than just subprime lenders buying government support for subprime lending. We also find a sharp increase in the statistical strength of constituent interests in predicting votes on subprime lending related legislation. More specifically, the fraction of subprime borrowers in a given representative's congressional district becomes a more powerful determinant for roll call votes on subprime legislation during the subprime lending expansion. In the 105th Congress (1997-1998), the fraction of subprime borrowers in a representative's district significantly predicts the representative's votes on only 30% of roll calls; by the 108th Congress (2003-2004), it increases to around 70%.

Taken together, these findings suggest that politicians responded to both special and constituent interests when supporting policies related to the expansion of subprime lending.

In the final section of the study, we examine voting and cosponsorship patterns on six bills for which competing interests are better defined than for most housing-related legislation: The American Dream Downpayment Act of 2003 (ADDA) which aimed to increase homeownership among low-income communities by providing downpayment and closing cost assistance; the Ney-Kanjorski Responsible Lending Act of 2005 (RLA) which would have preempted state regulations on predatory lending; the Prohibit Predatory Lending Act of 2005 (PPLA) which would have placed more stringent controls on subprime lenders; the Mortgage Reform and Predatory Lending Act of 2007, which was a revised version of the PPLA that eventually passed the House (but failed in the Senate); and the Federal Housing Finance Reform Acts of 2005 and 2007, which sought to tighten regulation of Freddie Mac and Fannie Mae. Our findings on the determinants of voting and cosponsorship patterns on

these specific bills are broadly consistent with the view that both constituent and special interests jointly played an important role in government support for the expansion of subprime mortgages. Our bills include a varied sample of legislation, some of it introduced in periods of republican majority of Congress (until 2006), other introduced and passed under a democratic Congress (110th).

There is a large literature on the determinants of congressional voting which would be impossible to review here for lack of space.[4] However, a sub-branch of that literature has been investigating voting on financial legislation. Romer and Weingast (1991) present a thorough investigation of the legislation around the saving and loans crisis in the late 1980s. Nunez and Rosenthal (2004) investigate bankruptcy reform voting in the mid 2000s. Berglof and Rosenthal (2003) portray the historical evolution of bankruptcy legislation in Congress.

Our findings on *campaign contributions* are complementary to the findings of Igan, Mishra, and Tressel (2009), who examine how *lobbying expenditures* by subprime lenders are correlated with both mortgage lending patterns and subsequent default rates.[5] In a more recent contribution Igan and Mishra (2011) attempt to further investigate the effect of special interests through the precise evolution of crucial financial bills. A key distinction is that our findings suggest that *both* special *and* constituent interests influenced public policy supporting subprime mortgage lending. This theme is discussed at length also in McCarty, Poole, and Rosenthal (2012) and more qualitatively in McCarty, Poole, Romer, and Rosenthal (2010) in the context of the build up of recent financial crises. Our findings are also directly related to Mian, Sufi, and Trebbi (2010) who study the effect of special interests, constituent interests and their interaction on legislation during the subprime mortgage default crisis in 2008.[6] In a recent paper Epstein, O'Halloran, and McAllister (2010) also follow

[4] An comprehensive review is available in Poole and Rosenthal (1997).

[5] As discussed in detail in the following sections, a main advantage of employing campaign contributions is that it allows a precise match between source and target of the political influence link. While campaign contributions from the mortgage industry can be directly linked to specific politicians due to Federal Election Commissions requirements, the lobbying activity of the mortgage industry cannot (lobbying reports lack such information).

[6] Mian, Sufi, and Trebbi (2010) also contains a more complete review of the politico-economic literature on special and constituent interests to which we refer.

a similar approach to ours, reviewing a comprehensive sample of financial sector legislation since 1950. Their focus is however on regulatory delegation from Congress to the executive branch.[7]

In the next section we provide background on government policies that may have facilitated the expansion of subprime mortgages. Section 3 presents data and summary statistics. Sections 4 through 6 present results and Section 7 presents our conclusions.

II. Public Policy and Subprime Mortgages

The dramatic relative growth in mortgage credit to low credit quality households was the primary driver of the mortgage default crisis and the resulting financial crisis (Mian and Sufi (2009)). This expansion of subprime credit coincided with important U.S. government policies that may have contributed to this pattern. One such policy is the increase by HUD of affordable housing mandate for both Freddie Mac and Fannie Mae in 2000 and 2004.[8] The affordable housing mandate, which is a requirement that Freddie Mac and Fannie Mae purchase a fraction of mortgages that serve low to moderate income borrowers, was increased from 42% to 50% in 2000, and from 50% to 56% in 2004. The increase in the affordable housing mandate led to a sharp increase in the fraction of subprime mortgage backed securities purchased by the agencies. For example, Freddie Mac and Fannie Mae purchased almost no subprime mortgage backed securities in 2000. Between 2004 and 2006, the two agencies purchased $434 billion in securities backed by subprime loans.

The decision by HUD illustrates the difficulty in determining the influence of special interests and constituent interests on policy. It is likely that HUD increased the affordable housing mandate in part due to both mortgage lender and congressional pressure. Indeed, this contention is made forcefully in several opinion pieces by journalists and economists.[9] However, it is difficult to measure the pressure exerted by various interests on HUD. The same

[7] A discussion of financial legislation and the hystorical patterns of deregulation can be also found in Kroszner and Strahan (1999) and Philippon and Reshef (2008).

[8] Background information on the affordable housing mandate is from Leonnig (2008) and Barrett (2008).

[9] See for example Calomiris and Wallison (2008) and Gigot (2008).

can be said of regulatory decisions regarding consumer protection and predatory lending. In what follows we make an effort in this direction by focusing on lobbying on the HUD.

There were also a very large number of bills in the U.S. Congress related to mortgage lending. More specifically, there were over 700 roll call votes on bills related to "affordable housing," "homeownership," or "subprime" during the period of subprime mortgage credit expansion. Igan, Mishra, and Tressel (2009) describe 33 of these bills in their appendix. We choose to focus on six bills for which the competing interests are reasonably well defined.

First, in December 2003, the American Dream Downpayment Act (ADDA, H.R. 1276) was signed into law. The act provided $200 million annually for downpayment assistance to low-income first-time homebuyers and increased the loan limit for Federal Housing Administration insurance for purchasing multifamily units in high cost areas.[10] According to HUD's website,[11] the downpayment assistance was created to "increase the homeownership rate, especially among lower income and minority households." The Act enjoyed broad bipartisan support; it was passed by unanimous consent in the Senate and without objection in the House of Representatives.[12]

Further, despite pressure from consumer advocacy groups,[13] there was no major legislation passed by the U.S. Federal Government to impose stricter regulations on the subprime mortgage industry during the period of dramatic subprime lending growth. In contrast, the Responsible Lending Act (RLA) of 2005 (H.R. 1295) introduced by Rep. Robert Ney from Ohio and Rep. Paul Kanjorski from Pennsylvania in the 109th Congress would have "preempt[ed] state mortgage laws with a federal standard" (Shenn (2005)). Consumer advo-

[10] For more information on the ADDA, see "Bush Signs Downpayment Act," National Mortgage News, December 29, 2003.

[11] See http://www.hud.gov/offices/cpd/affordablehousing/programs/home/addi/.

[12] Other legislative measures were simultaneously considered, including, H.R. 3755, the Zero Downpayment Act, introduced by Rep. Pat Tiberi of Ohio and David Scott of Georgia on February 3, 2004. In May 5, 2004 at the House Committee on Financial Services Subcommittee on Housing and Community Opportunity hearing Rep. Robert Ney indicated: "It would provide a program to eliminate the downpayment requirement for certain families and individuals who buy homes with FHA-insured mortgages."

[13] For example, the House Banking Committee held a hearing on May 24th, 2000 that addressed the rising subprime market and the problem of "predatory lending." Several consumer advocacy groups called for stricter regulation. See Common Cause (2008).

cacy groups and state regulators were strongly opposed to the Act given that it would have replaced tougher state-mandated consumer protections with weaker federal protections.[14] The Act was never passed, in part because Rep. Ney was implicated in the Jack Abramoff corruption scandal shortly after its introduction.

Also in the 109th Congress, legislation targeting predatory lending was introduced by Representative Bradley Miller under the name Prohibit Predatory Lending Act (PPLA) of 2005 (H.R. 1182). The Miller legislation was based on North Carolina's predatory lending statute, which according to the Center for Responsible Lending (2005), is "widely considered the model for preventing abusive lending while preserving access to credit". Indeed consumer advocates directly contrasted the PPLA with the RLA as being the legislation that would effectively reduce predatory lending.[15] The legislation was referred to committee and was never voted upon in the House of Representatives.

During the subprime mortgage default crisis, Representative Miller sponsored closely related legislation in the 110th Congress, the Mortgage Reform and Anti-Predatory Lending Act of 2007. Like the earlier legislation, this bill targeted predatory lending and was widely supported by consumer advocacy groups. The bill passed the House but was never taken up for a vote in the Senate.

In addition to these four pieces of legislation, we also examine two different versions of the Federal Housing Finance Reform Act of 2005 (H.R. 1461) and of 2007 (H.R. 1427). According to the Financial Times "The House bill, the 2005 Federal Housing Finance Reform Act, would have created a stronger regulator with new powers to increase capital at Fannie and Freddie, to limit their portfolios and to deal with the possibility of receivership."[16] Both bills passed the House in the 109th and 110th Congress respectively, but died due to

[14] See Gallagher (2005), Center for Responsible Lending (2005), and Common Cause (2008). The Center for Responsible Lending (2005) argued in 2005 that "the Ney-Kanjorski bill pending in Congress and supported by much of the lending industry would gut the strong laws in these states."

[15] See congressional testimony of Martin Eakes of the Center for Responsible Lending: http://www.responsiblelending.org/mortgage-lending/policy-legislation/congress/Testimony-Eakes052405.pdf

[16] See Farrell (2008).

perceived weakness of the overall legislative effort in the Senate and opposition by the Bush administration.

Related to the oversight of Freddie Mac and Fannie Mae, congressional majorities of both parties consistently rejected amendments aiming at constraining GSEs balance sheets and limiting their systemic risk role. The evidence is derived from roll calls on specific amendments to the Federal Housing Finance Reform Act of 2005 and then again in 2007 (Congress changed its majority party to Democratic with the November 2006 elections). Specifically, amendment number 600 of the 2005 version of the FHFRA is described as an "Amendment sought to authorize the regulator to require one or both of the GSEs to dispose or acquire assets or liabilities if the regulator deems those assets or liabilities to be a potential systemic risk to the housing or capital markets, or the financial system." Amendment number 207 of the 2007 version of the FHFRA specifies that the "Amendment clarifies the authority of regulators over government sponsored enterprises ... to clarify that potential risks should be posed to the enterprises with respect to the nature of portfolio holdings."

Commissioner Keith Hennessey, member of the Financial Crisis Inquiry Commission, in his April 2010 questioning of Alan Greenspan refers in detail to this amendment:

"[...]Now, there was an amendment; it was House Amendment 207; it passed the House on May 22nd, 2007, on a 383 *to* 36 *vote. That is an overwhelming bipartisan vote. And what that amendment did is it limited the new housing regulator's authorities. It said that the new housing regulator can only consider the risk that these portfolios place to the safety and soundness of Fannie Mae and Freddie Mac, not to the financial system as a whole.... So, in effect,* 221 *House Democrats and* 162 *House Republicans voted to preclude the regulator from being able to consider systemic risk with the GSE portfolios [...]."* [17]

We study these amendments in addition to the cosponsorship and passage votes on the FHFRAs.

[17] The Financial Crisis Inquiry Commision, Official Transcript Commission Hearing of April 7, 2010, pp. 82-83.

III. Data and Summary Statistics

A. *Data*

Our analysis of the determinants of government policy toward the housing sector utilizes three sets of data: consumer credit score data, congressional electoral and voting data, and campaign contribution and lobbying expenditure data. Data on consumer credit scores are from Equifax Predictive Services. Equifax collects these data from consumer credit reports, and aggregates the information at the zip code level. These data are available at an annual frequency from 1991 to 1997, and at a quarterly frequency from 1998 through the fourth quarter of 2007. Our key measure of constituent interests as it relates to subprime lending is the fraction of individuals in a zip code with a credit score less than 660.[18]

To further concentrate on the electoral constituency of each congressman we built a fraction of individuals in a zip code with a credit score less than 660 of the same political affiliation of the politician (indicated in what follow as *own-party* subprime share). Specifically we employed zip code level information on party registration from the political intelligence firm Aristotle for those states for which the data is available – about 38, but covering the vast majority of the US electorate, 84% of US Congressional Districts[19]. By aggregating zip codes to the congressional district level (weighted by population and by party registration) we were able to compute the share of individuals below a 660 credit score affiliated with the party of the congressman representing the district.

In order to aggregate zip code level data to the congressional district level, we utilize the MABLE-Geocorr software.[20] One complication in the matching procedure is redistricting

[18] See Mian and Sufi (2009) for further details on the Equifax data. As they note, an individual with a credit score below 660 is widely considered a "subprime" borrower.

[19] For each zip code, this proprietary data set records the fraction of voters affiliated to the Republican and Democratic party. Party affiliation of a voter is determined by the party with which she registers in 32 of the 38 states. In the remaining 6 states, party affiliation is determined by the party primary in which a voter participates. The data are recorded as of 2007 for 32 states, 2006 for 4 states, and 2004 for 2 states.

[20] Supported by the Missouri Census Data Center. Zip codes are 5-digit ZIP (ZCTA-ZIP Census Tab. Area 2000) and matched respectively to the 106th (1999-2000), 108th (2003-2004) and 109th (2005-2006) congressional districts. Redistricting for all other congresses was implemented using data on geographic overlap kindly provided by Chris Berry at the University of Chicago Harris School of Public Policy. All the

that occurs between the 107th (2001-2002) and 108th (2003-2004) Congresses. In order to account for redistricting, we construct a measure of match quality which is the fraction of the 2002 population that belongs to the same congressional district in 2003 after the redistricting. Match quality across Congresses based on shared population is presented in Appendix Figure 1. The figure shows that 75 percent of all post-redistricting districts include more than 60 percent of the population of the previous district. In the panel data set analysis that tracks districts over time, we utilize match quality in robustness tests to ensure that redistricting does not influence our results.

Our second main data set covers congressional district electoral and voting behavior in the House of Representatives. These data include party affiliation, number of terms in office, committee assignments of the representatives from the district (Stewart and Woon (2008)), and the DW-Nominate representative ideology scores which are increasing in conservatism (Poole and Rosenthal (1997, 2007)).[21] The roll call votes come from Keith Poole's vote-view.com data base, and were cross-referred to Govtrack.us. Cosponsorship information on bills introduced was also obtained from Govtrack.us.

Our third main data set covers spending by special interest groups. It encompasses two main channels of special interest group spending: campaign contributions (i.e., resources given to politicians to finance their electoral campaigns) and lobbying expenditures (i.e., resources spent by clients that hire lobbyists to directly petition the government). We obtain campaign contributions data from the Center for Responsive Politics (CRP), a nonpartisan and nonprofit organization, which directly collects the information from the Federal Election Commission political contributions reports.[22] The advantage of the CRP data is that it covers contributions from Political Action Committees (PACs, the main channel for firms' political activity) and individual contributions (above $200) sorted on the basis of

aggregates are population weighted sums.

[21] Within the political science literature DW-nominate is one of the most popular proxies for ideology. In extreme synthesis, the DW-Nominate score is an estimated ideological position based on the legislator's past roll call voting records within a random utility choice model (Poole and Rosenthal, 1997 and 2007).

[22] See http://www.opensecrets.org and http://www.fec.gov/disclosure.shtml

the contributor's employer. This allows for a comprehensive measurement of the overall contributions of a specific industry. Our main industry of interest is the mortgage bankers and brokers industry, which is defined by CRP as a subcategory of the real estate sector. The top contributors from the mortgage-banking category in 2006 include Fannie Mae, the Mortgage Bankers Association of America (MBA) and Freddie Mac.[23] In robustness tests, we also examine contribution data for all industries listed by the CRP under the classification "Finance, Real Estate and Insurance". As an additional control for special interest expenditure we constructed from CRP PAC data, but without relying on their industry classification, a measure of campaign contribution spending from major commercial banks engaged in subprime lending. We employed information from the Department of Housing and Urban Development in its "HUD Subprime and Manufactured Home Lender List" for the year 2005 (i.e. the available year closer to the peak of the housing market) and matched the banks to their respective PACs in the CRP data[24].

Lobbying expenditure data come from the CRP and from the Senate Office of Public Records lobbying disclosure database. The CRP collects this information directly from the Senate Office of Public Records, which reports lobbying disclosure reports in accordance with the Lobbying Disclosure Act (LDA) of 1995. Data are aggregated at the industry level based on the industry of the client hiring the lobbyist filing the report. Reports are available at a semiannual frequency starting from 1998 to 2008 and quarterly since 2009. A drawback of the lobbying disclosure legislation is that it does not require information on the specific members of Congress lobbied. Instead, the required information is limited to the governmental agency lobbied (i.e., the House or the Senate). While the data are useful in analyzing aggregate

[23] Other trade associations included in the industry are: Mortgage Insurance Companies of America, Commercial Mortgage Securities Association. Firms belonging to the class of donors include Countrywide Financial, Ameriquest Capital, New Century Financial Corp.

[24] For matching PAC's to listed banks that were subsidiaries, we employed three criteria. First, if the parent company was known to be heavily involved in subprime lending (i.e. Wells Fargo, Citigroup, Washington Mutual), we associated them. If it was less clear, we looked at their financial records and if subprime lending or units made up more than ~30% of their cash flow or assets, we associated them. Thirdly, when public data was not available, we used the fact that the subsidiary went bankrupt because of the subprime lending crisis as prima facie evidence in favor of association.

industry lobbying dynamics, no link can be traced to specific politicians.[25]

B. *Summary Statistics*

Panel A of Table I presents summary statistics at the congressional district-session level. Our sample covers the 103rd through 109th Congress, spanning 1993 to 2007. The average campaign contribution amount from the mortgage industry per congressional district per session is $\$3,306$. For subprime banks the contribution amount averages at $\$3,216$. This figure is not particularly high due to the relatively small number of commercial banks heavily involved in subprime lending. While the vast majority of depository institutions were affected by the subprime crisis through their balance sheet exposure to mortgage backed securities, relatively fewer commercial banks directly engaged in subprime lending. For all other financial industries, the average campaign contribution total amount is $\$110,000$.

A main advantage of the political contribution data is that we are able to precisely measure the industry that gives the donation and the representative that receives the money. The presence of the donation indicates a link but not necessarily "contact" or "access". As is well-known in the political economy literature, the amount of political donations is quite small, and only serves as a proxy for the intensity with which politicians are sought[26]. The small magnitude is in part due to campaign finance laws putting severe restrictions on the size of donations that can be given to representatives. The lobbying expenditure data allow us to partially overcome the problem of small magnitudes given that lobbying is a form of political influence that involves an order of magnitude more resources than campaign contributions. The drawback of the lobbying data is that we cannot link an industry's lobbying to a specific representative. In the analysis below, we utilize both disaggregated campaign donation data and aggregate lobbying expenditure data to analyze the determinants of government policy toward the housing sector during the subprime mortgage credit expansion from 2001 to 2006.

[25] For a discussion see Ansolabehere, Snyder and Tripathi. (2002) and Bombardini and Trebbi (2012).

[26] The link of campaign contributions with political access is at the core of a large literature in political science. Among the most important contributions see Austen-Smith (1995). For the link between lobbying and campaign contributions see Wright (1990) and Ansolabehere, Snyder, and Tripathi (2002).

On average, a congressional district has 33% of its residents that are subprime in terms of credit scores. Panel A also includes 2000 Census information on race, income, and education. In terms of characteristics of the representatives, 52% are Republicans and on average the DW-Nominate score, which varies from -1 to 1 is 0.04. 15% of the representatives serve on the Financial Services Committee in the House.

Panel B presents summary statistics on voting patterns for the major pieces of legislation that we discuss in Section 2. A large fraction of both Republicans and Democrats cosponsored the ADDA of 2003. Democrats were much more likely to cosponsor and vote for the Miller legislation on predatory lending, while both Republicans and Democrats were equally likely to cosponsor the Ney legislation that weakened predatory lending regulation. The FHFRA Acts of 2005 and 2007 were passed on largely partisan votes, but a substantial fraction of the opposition party also voted for the legislation. In Section 6, we explore the determinants of these voting and cosponsorship patterns.

IV. Campaign Contribution Trends

A. *Aggregate Trends in Mortgage Industry Lobbying Expenditure and Campaign Contributions*

Figure 1A shows aggregate trends in mortgage brokers and bankers industry campaign contributions (top) and mortgage industry lobbying expenditures (bottom). Campaign contributions by both mortgage lenders and other financial firms experience an increase from 1998 to 2002. However, beginning in 2002, there is a sharp relative increase in mortgage industry campaign contributions. From 2002 to 2006, mortgage industry campaign contributions increase by 80%, relative to a 40% increase in campaign contributions from other financial firms.

The bottom panel shows that lobbying expenditures by the mortgage industry increase from 1998 to 2001. However, beginning in 2001, lobbying expenditure by the mortgage industry increases more rapidly, doubling from $25 million to almost $50 million in 2004. From

2005, the increase in mortgage industry lobbying stops and a gradual decline begins that lasts until the end of the sample. The sharp increase in mortgage industry campaign contributions and campaign lobby expenditure coincides with a sharp increase in securitization and mortgage lending to high subprime zip codes that occurs from 2001 to 2006 (Mian and Sufi (2009)). Igan, Mishra, and Tressel (2009) show that mortgage lenders with higher lobbying expenditures had more aggressive lending patterns during the mortgage credit expansion and higher default rates during the mortgage default crisis.

Figure 1B shows disaggregate trends in lobbying expenditures where the business reports HUD as a target of the lobbying. We only consider reports by Fannie Mae, Freddie Mac, and Countrywide Financial. There is one important caveat on these data: lobbying reports typically include several different agencies and different issues beyond housing. Figure 1B shows a distinct pattern: lobbying of HUD by Fannie Mae, Freddie Mac and Countrywide Financial is a leading indicator for subprime lending growth. From 2001 to 2005, there was a sharp increase in lobbying by these organizations, which collapses subsequently. Fannie Mae's lobbying alone accounted for 20% of overall lobbying by the whole industry in 2004.

B. *Mortgage Industry Campaign Donations and Subprime Constituents*

Is the increase in campaign contributions and lobbying expenditures by the mortgage industry directly linked to U.S. government policies which may have contributed to the subprime mortgage credit expansion? In this section, we examine this question by exploiting variation across congressional districts in the share of the population that has a credit score below 660 as of 1998 (before expansion of subprime mortgage credit). Subprime borrowers below 660 are the most likely recipients of new mortgages during the expansion in securitization and subprime mortgage credit that occurs between 2001 and 2006.[27] Our analysis

[27] See Piskorski, Seru and Vig (2008) and Keys, Mukherjee, Seru and Vig (2010) for more information on credit scores and subprime mortgage securitization. Non-GSE subprime mortgage securitization agents target borrowers with a credit score below 660 given that GSEs have limits on mortgages to borrowers below this credit score. For example, as of June 2008, conforming jumbo mortgages for Freddie Mac must have a score of at least 660. See http://www.freddiemac.com/singlefamily/increased_limits.html. Consistent with this evidence, Mian and Sufi (2009) find that zip codes with a high fraction of borrowers with a credit score

in this section is designed to test whether mortgage industry campaign contributions target representatives from districts in which the constituents are most likely to obtain subprime mortgages.

The top panel of Figure 2 plots the β_t coefficients from the following linear regression specification for congressional district c at congressional cycle t:

$$\begin{aligned} & Ln(Mortgage\ Industry\ Contribution_{ct}) \\ = & \sum \delta_t * CongressionalCycleYear_t + \\ & \sum \beta_t * CongressionalCycleYear_t * SubprimeShare_{c,1998} \end{aligned}$$

In other words, the figure plots the differential increase in mortgage industry campaign contributions for congressional districts with a high fraction of subprime borrowers as of 1998. As the solid line in the top panel of Figure 2 shows, there is no relative differential pattern in donations by the mortgage industry from 1992 through 2000. However, beginning with the 107th Congress in 2002, there is a sharp relative increase in mortgage campaign contributions to high subprime share districts. The magnitude of the coefficient in the 109th Congress (2005-2006) implies that a one standard deviation increase in the subprime share as of 1998 (0.09) leads to a relative increase in the growth rate of mortgage industry campaign contributions of 81%. This point estimate is statistically distinct from the 106th Congress (1999-2000) estimate (β_{2000}) at the 5% significance level. In other words, the relative increase in the growth rate of mortgage industry campaign contributions to high subprime share congressional districts from 2000 to 2006 is both economically and statistically significant.

The results in Figure 2 display a strong relative increase in mortgage industry campaign contributions to representatives from congressional districts with a high fraction of subprime borrowers. The increase is concentrated from 2002 to 2007, which is the exact period in which important government policies were implemented that may have contributed to the

less than 660 experience a sharp relative increase in securitization from 2001 to 2005.

sharp increase in subprime mortgage lending.

Importantly, these trends are revealing under any interpretation of the role of money in politics. If one takes the standpoint of money literally buying congressional support for pro-subprime lending, the policy distortions are obvious. However, even subscribing to the more benign view of special interests' campaign contributions simply following politicians with aligned ideologies and under the assumption that money enhances the electoral chances of politicians, the sustained re-election of more pro-subprime lending members will result in more congressional support for the mortgage expansion.

In order to further corroborate this result, Figure 2 also plots the differential increase in non-mortgage industry financial campaign contributions for congressional districts with a high fraction of subprime borrowers as of 1998, the β_t coefficients in:

$$\begin{aligned} & Ln(NonMortgage\ Finance\ Contribution_{ct}) \\ = & \sum \delta_t * CongressionalCycleYear_t + \\ & \sum \beta_t * CongressionalCycleYear_t * SubprimeShare_{c,1998} \end{aligned}$$

As the dashed line shows, the relative non-mortgage/non-subprime banks campaign contributions for high subprime share districts is steady throughout the sample period. In other words, the differential path of campaign contributions toward representatives from high subprime share districts is unique to the mortgage industry. This evidence suggests that the mortgage industry viewed high subprime share representatives as potential allies in shaping subprime market legislation. In the middle panel of Figure 2 we repeat the same exercise, but replacing the subprime share in the congressional district with the subprime share of the electoral constituency of each congressman in order to isolate more sharply electoral incentives, in line with Fenno (1978) "dual constituency" hypothesis. The pattern of the middle panel appears to strongly validate the pattern in the top panel. Finally in the bottom panel of Figure 2 we employ spending by subprime banks. Although from 2000 to 2006 subprime

congressmen see a sharp growth of campaign contributions directed at them from commercial banks heavily involved in subprime lending, the Figure does not display the same level of stability in the pre-2000 period.

Our interpretation, albeit circumstantial, points to an alignment of special and constituent interests in Congress, an issue we further explore below.

V. Constituent and Special Interest Effects on Roll Call Votes

The empirical tests in this section attempt to discern the influence of constituent and special interests by examining roll call votes on the very large number of bills associated with subprime lending. More specifically, there are over 700 roll call votes recorded that have one of the following three terms in their CRS description: "affordable housing", "homeownership", or "subprime." Figure 3 shows the number of bills with each of these terms for each congressional term from 1994 to 2008.

Our empirical approach is designed to detect how constituents and special interests align voting patterns on this large body of legislation. More specifically, for each of these approximately 700 votes, we estimate the following cross-sectional specification:

$$(1) \qquad \begin{aligned} Vote_i &= \alpha + \beta_1 * Ln(MortgageContributions_i) + \beta_2 * SubprimeShare_i \\ &\quad + \beta_3 * DWNom_i + \Gamma * X_i + \varepsilon_i \end{aligned}$$

where i indicates a member of Congress and all constituent and special interests controls are specific to the relevant Congressional cycle. In specification (1), our measure of constituent interests is the share of subprime borrowers in the congressional district and our measure of special interests is campaign contributions from the mortgage industry[28]. We include the DW-Nominate first dimension score as a measure of political ideology, as a standard control in political science voting specifications of recent Congresses[29], and we include a

[28] See Stratmann (2005).

[29] For a discussion on the fundamental role of ideology in congressional voting see Bernstein (1989), Kau

comprehensive set of control variables (X) for the fraction of the district that is black and Hispanic, the natural logarithm of household income in the district, the fraction living in poverty, the fraction with an education level less than high school and the fraction with just a high school education. We also include in the control variable set X a dummy for whether the representative serves on the financial committee, the number of terms served by the representative and, as a benchmark, the log of campaign contributions from subprime banks and from non-mortgage related financial institutions[30].

We estimate the above equation for every roll call vote, and we record the fraction of all bills in a given congressional cycle in which the estimated coefficients of $\beta_1$and β_2 are statistically significantly distinct from 0 at least at the 5% confidence level. By tracing the statistical significance of the mortgage contributions and the subprime share we are able to detect the share of bills for which these variables have statistical explanatory power and follow how such share changes over time. In particular, any share consistently above 5% will indicate statistical correlation beyond pure Type I error and if the share of statistically significant bills systematically increases over time, then the explanatory power of constituent and special interests must be increasing.

This approach to legislative voting analysis has some useful features and some evident drawbacks. One useful feature is that by focusing on statistical significance as opposed to the direction and size of coefficients we can abstract from arbitrarily classifying roll calls into "for" and "against" subprime credit expansion, and we are able to aggregate a very large number of heterogenous bills. A disadvantage of this approach is that all the important information contained in specific bills and amendments is lost. In particular, roll calls in which constituent and special interests align are treated identically to bills in which constituent and special interests contrast.

and Rubin (1979), (1990), Kalt and Zupan (1984) and (1990) and Dougan and Munger (1989).

[30]No specific nonlinearities, in particular with respect to the interaction between special interests and constituent interests, appeared evident in the analysis and were no considered in our baseline specifications. We also experimented with quadratic and higher order polynomials in the measures of special interests and constituent interests. Again no systematic nonlinearities were apparent.

Another drawback is that for all cross-sectional specifications, the set X has to be relatively large in order to avoid picking up spurious correlations. Employing a comprehensive covariate set X for the bills is even more necessary here under the substantial degree of heterogeneity of the roll calls studied (including issue-specific bills, omnibus legislative vehicles, specific amendments). Failing to include a substantial number of covariates invalidates the approach, as any time-varying pattern in the relevance of such omitted covariates would be picked up by our variables of interests.[31]

In order to give more weight to legislation that has a larger impact, we weight the results by a measure of media coverage of the bills based on number of counts of search hits on the Google News application.[32] Given that the enumeration of House bills repeats itself at every Congress, Google News archive is particularly useful, as it allows to identify the specific time period over which the search is run. Each search is run on the specific bill number and irrelevant hits or hits that are not in English were manually dropped.

The results for β_1 are in Figure 4. Focusing on the Google-weighted results, there is a sharp increase in the fraction of housing or housing finance related legislation for which the estimate of β_1 is significant at the 5% confidence level. In other words, contributions from the mortgage industry are increasingly powerful at explaining voting patterns on legislation related to subprime mortgages from 2000 to 2004. The magnitude is quite large: the coefficient estimate is significant in only 6% of the Google-weighted votes as of the 103rd Congress (1993-1994), but then increases sharply to 18% in the 108th Congress (2003-2004). The increase corresponds exactly to the time period in which subprime mortgage credit expanded most dramatically.

The results for β_2 are in Figure 5. Similar to the results in Figure 4, the effect of constituent interests on voting pattern increases substantially from 2000 to 2004. The fraction of subprime borrowers living in a congressional district seems to influence voting patterns

[31] In Appendix Figure 2, we show what would happen to our analysis if the conditioning set X were to be dropped. By picking up correlations with covariates that may occasionally turn out to be significant in explaining specific votes, any systematic pattern of $\beta_1$and β_2 is lost.

[32] Specifically we employ news.google.com in its "archive" version and select a relevant time window.

on housing or housing finance related legislation much more in 2004 than in 1996. The fraction of subprime borrowers is significant in only 40% of the Google-weighted votes at the beginning of the sample, but jumps to about 70% in the 108th Congress (2003-2004) when subprime lending was at its peak.

In Appendix Figure 3 we focus on the role of subprime bank contributions. This is an important control in the analysis and one that could be presumed to behave similarly to mortgage lenders contributions. We find however that subprime commercial banks contributions do not play the same role of mortgage brokers and bankers contributions in the analysis and generally are very noisy predictors of legislative behavior. There are three likely reasons for this: 1. Subprime banks contributions are likely a noisier measure of special interest pressure (by focusing on depository institutions necessarily some of the donations are likely to be related to pure banking issues independent of housing legislation); 2. Depository institutions 'got in the game' relatively late in the housing boom relative to mortgage bankers and brokers, that is around 2004, or right about when the GSEs substantially stepped into the non-conforming and subprime mortgage markets, drastically increasing the liquidity of asset backed securities related to the subprime; 3. The CRP's classification is clearly much more exhaustive in creating special interest level information that we could be possibly aim for. In particular, CRP also includes individual donations in their totals (a daunting task if we were to replicate this approach for very large employers like Wells Fargo). The explanatory power of subprime banking contributions seem to increase only around periods of peak congressional productivity, as evident from comparing Appendix Figure 3 with Figure 3.

One worry with the above findings is that a secular trend may be driving the results. For example, one concern is that representatives in this time period are becoming more sensitive to campaign contributions from any sector, not just mortgage lenders. In Appendix Figure 4, we present a falsification test where we examine the fraction of votes in a given year in which non-mortgage financial industry contributions affect votes on housing and housing finance related legislation (this variable is present as a control in every regression). From the

103rd Congress (1993-1994) to the 108th Congress (2003-2004), there is no discernible trend in the influence of non-mortgage financial industry contributions on voting patterns. In the 109th (2005-2006) and 110th Congress (2007-2008), there is an increase in the explanatory power of non-mortgage financial industry contributions, but this corresponds to the period in which the subprime mortgage crisis threatened all financial institutions, not just mortgage lenders.

Finally, for completeness, we report the dynamics in terms of explanatory power stemming from purely ideological positions of different congressmen. Appendix Figure 5 reports a steady increase in the fraction of housing or housing finance related legislation for which the coefficient on the DW-Nominate score first dimension is significant at the 5% confidence level. This finding lines up well with the general intuition of an increase in ideological polarization of the period in analysis, as the explanatory power of DW-Nominate increases over time. Importantly no specific break is visible around or after the 107th Congress (2001-2002).

VI. Analysis of Mortgage-Related Legislation

In this section, we follow a more standard approach to legislative voting analysis and focus on eleven cosponsorships and votes concerning six major legislative initiatives during the subprime expansion. In all cosponsorship and voting regressions we first present the simple univariate regression of the house vote or cosponsorship on the logarithm of campaign contributions from the mortgage industry. We then augment it with other finance campaign contributions, ideology, and subprime share controls, and finally we report the full specification (1), as employed in the previous section. We also employ both the subprime share of the population and the subprime share of the relevant political constituency of the politician (always reported in columns numbered (4), (8) and (12) in the Tables). We choose these bills because the competing interests are better defined than for most legislation and for the salience of the bills.

Our objective here is not to provide an exhaustive reading of the alignment dynamics

between special interests and constituent interests along the course of the entire US housing legislation, a daunting task given the heterogeneity and complexity of many of these acts. Rather, we wish to provide here case study evidence aimed at reinforcing the analysis of our previous section. We do so by presenting salient examples of legislation where special interests influence is clearly detectable, other examples where constituent interests influence is evident, and finally cases where both constituent and special interests are detectable and align in their support.

In Table II we present two cosponsorship analyses that show a strong alignment with special interests: the American Dream Downpayment Act of 2003 and the Responsible Lending Act of 2005. As mentioned above, the ADDA was passed unanimously whereas the RLA was withdrawn. Table II displays across all specifications (1)-(6) a stable and statistically significant semi-elasticity of cosponsorship with respect to mortgage campaign contributions of about 0.01. Absent a clear empirical strategy to isolate the causal effect of campaign contributions on cosponsorship activity, we cannot tell whether contributions are causing cosponsorship or whether contributions go to allies that are more likely to cosponsor regardless of the contributions[33]. In either case, the evidence suggests an alliance between cosponsors and the mortgage industry.

Table III presents an analysis of the Prohibit Predatory Lending Act (PPLA) of 2005 and the Mortgage Reform and Anti-Predatory Lending Act of 2007, both legislation generally perceived as restrictive of predatory lending and both sponsored by Congressman Bradley Miller. We explore the cosponsorship patterns of both and the House vote on passage for the Mortgage Reform and Anti-Predatory Lending Act. Neither legislative efforts were signed into law. Although both bills were perceived as anti-mortgage industry, no clear pattern between cosponsorship and campaign contributions is discernible in the table.

In columns (2) and (6) the share of subprime borrowers in the district displays a positive and statistically significant coefficient. However, this appears to be driven by the cross-

[33]See for example Grier, Munger, Roberts (1994), Stratmann (2002), Mian, Sufi and Trebbi (2010) and Stratmann (2005) for a discussion.

correlation with the minority fraction. As shown in columns (3) and (7), the addition of controls for minority share leads to a negative effect of subprime share on the 2005 and 2007 cosponsorship, although the latter is not significant at standard confidence level. The evidence weakly suggests that representatives from districts with a high fraction of subprime borrowers (after controlling for minority share) were less likely to cosponsor legislation that was broadly perceived as anti-industry.

Table IV and Appendix Table 1 present an analysis of two versions of the Federal Housing Finance Reform Act, the 2005 and the 2007 bills. Although there were important differences, the two bills shared the goal of reforming GSEs and Federal Home Loan Banks regulatory oversight. They also pushed affordable housing provisions by establishing an "Affordable Housing Fund" for very low income families. Finally, both bills sought to establish the Federal Housing Finance Agency (FHFA) to oversee the activities of Fannie Mae and Freddie Mac.

One difficulty in interpreting patterns on these two bills is their complexity. They covered a host of issues and were perceived differently by different parties. For example, the Bush administration opposed that 2005 bill because it "fail[ed] to include key elements that are essential to protect the safety and soundness of the housing finance system ...".[34] In other words, the administration viewed the 2005 legislation as being weak on regulation of GSEs. Consistent with this view, representatives that cosponsored the legislation received higher mortgage industry contributions, as is evident from columns (1)-(4) of Table IV.

While these two bills are complex in their implications, there were certain instances of an alignment of special and constituent interests in favor of mortgage credit expansion. The main example was the vote on the passage vote of the bill in columns (11) and (12) of Table IV. A similar patter, although more nuanced is present in Amendment 600 of the 2005 bill (columns (7) and (8)). As mentioned in section 2, Amendment 600 aimed to limit the systemic risk role of the GSEs' portfolios by allowing the regulator to require disposition of

[34] See the statement of administration policy available at: http://www.presidency.ucsb.edu/ws/index.php?pid=24851

specific assets or liabilities. Politicians with ties to both special interests and constituent interests (i.e. from congressional districts with high subprime share of the population) display a statistically higher propensity to vote against the amendment, as reported in the full specification of columns (7) and (8)[35]. Politicians with ties to constituent interests also are more likely to vote in favor the Amendment 207 of the 2007 bill, as reported in the full specification of column (7) of Appendix Table 1. Amendment 207 aimed at requiring only safety and soundness considerations as motivation for regulatory intervention in requiring modification of GSEs portfolios, excluding systemic risk as valid consideration.

There is one important note on these results: the share of African Americans in a district has the opposite sign relative to the effect of subprime share in columns (7), (8), (11) and (12) of Tables IV. Further, the coefficient on subprime share changes with the inclusion of this variable. Looking at the CSPAN record of the House floor debate one learns that the Congressional Black Caucus turned against both bills after specific activist groups were excluded through ad hoc amendments as beneficiaries of certain important provisions of the bill. This instance shows the difficulty in properly decomposing constituent interests in order to identify winners and losers from legislation.[36] Hence, the effect of subprime share must be interpreted conditional on the racial profile of the district.

VII. Conclusions

The expansion of mortgage credit to low income and low credit quality households during the 2002-06 period is historically unique and is responsible for the subsequent mortgage default crisis. We present suggestive evidence that the increase in mortgage credit corresponded to a period in which special interests, as measured by campaign contributions from mortgage lenders, and constituent interests, as measured by the fraction of subprime borrowers in a

[35] The logarithm of campaign contributions from the mortgage industry becomes a statistically significant negative predictor once the (statistically insignificant) control for subprime bank contributions is dropped from the specification.

[36] It is instructive to observe how the two dimensions confound the coefficient of subprime share in columns (5) and (8) of Tables IV and V. For a discussion see Peltzman (1984), Nunez and Rosenthal (2004), and Mian, Sufi, and Trebbi (2010).

congressional district, appear to be influencing voting behavior on housing legislation.

We show that campaign contributions and lobbying expenditure by mortgage lenders increased sharply during this period, and campaign contributions from mortgage lenders increasingly targeted representatives from high subprime share congressional districts. Moreover, the fraction of constituents with low credit scores and mortgage lender campaign contributions exerts increasing power over politician voting patterns on legislation related to housing and mortgages. Evidence from specific votes and cosponsorships also is suggestive of a confluence of special and constituent interest influence on representatives of both parties.

While the view that mortgage brokers and lenders are completely at fault through lobbying behavior may be popular in the aftermath of the mortgage and financial crisis of 2008-09, our findings suggest a more nuanced reality. Pressure on the U.S. government to expand subprime credit came from *both* mortgage lenders *and* subprime borrowers.[37] Essentially, a 'perfect storm' of constituent and special interests alignment might well have been a key propellant of housing market legislation during the 2000's. This finding has potential implications concerning the balance of views that exclusively attribute fault to special interests (e.g. mortgage lenders and banks) or GSEs (Fannie Mae and Freddie Mac) or myopic borrowers alone.

Given the nature of political influence and the complexity of government decisions that affect mortgage markets, it is difficult to find a "smoking gun" which shows with certainty the determinants of government policy. Our findings are suggestive evidence of the influence of subprime borrowers and lenders on policy. However, an increasing body of research supports the view that constituent and special interest pressure on the U.S. government played an important role in the rise and collapse of mortgage credit (Igan, Mishra, and Tressel (2009), Mian, Sufi, and Trebbi (2010)). We look forward to future research isolating the exact channels through which these interests helped fuel the expansion of subprime credit.

[37] See Bombardini and Trebbi (2011) for an analysis the simultaneous relationship between campaign contributions and constituents electoral weigh in political bargaining.

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Table 1
Summary Statistics

Panel A: Summary Statistics

	N	Mean	S.D.	10th	50th	90th
Mortgage Industry Contributions	3,480	3,306	7,582	0	550	9,000
Non-Mortgage/Non-Subprime Banks Finance Contributions	3,480	110,095	156,281	15,600	68,400	242,555
Subprime Banks Contributions	3,480	3,216	5,812	0	1,000	9,500
Subprime share (<660)	3,480	0.33	0.09	0.23	0.32	0.47
Own-Party Subprime share (<660)	2,897	0.34	0.10	0.23	0.32	0.48
Republican	3,481	0.52	0.50	0.00	1.00	1.00
DW NOMINATE 1	3,444	0.04	0.46	-0.54	0.10	0.60
Financial Serv. Committee	3,477	0.15	0.35	0.00	0.00	1.00
Mortgage Default Rate	3,480	0.034	0.020	0.014	0.031	0.058
Percent Hispanic	3,480	0.096	0.142	0.009	0.039	0.256
Percent Black	3,480	0.118	0.150	0.010	0.058	0.305
HH Median Income	3,480	44,626	11,780	31,718	42,094	62,208
Percent in Poverty	3,480	0.13	0.06	0.06	0.11	0.20
Education less than HS	3,480	0.20	0.08	0.12	0.18	0.31
Education HS	3,480	0.29	0.07	0.20	0.29	0.37
Urban	3,480	0.79	0.20	0.48	0.85	1.00

Panel B: Voting Patterns On Major Mortgage Related Legislation

	Republicans		Democrats	
	N	In Favor	N	In Favor
ADDA Cospon.	229	30.1%	204	13.2%
Ney Cospon.	232	9.9%	203	8.9%
Miller Cospon. 2005	232	0.0%	203	32.5%
Miller Cospon. 2007	199	0.5%	236	11.4%
Miller Pssg. Vote2007	188	34.0%	230	98.7%
Cospon. FHFRA 2005	232	8.6%	203	0.0%
Amdt. 600 FHFRA 2005	223	31.4%	196	1.5%
FHFRA Pssg. Vote 2005	224	93.3%	197	61.9%
Cospon. FHFRA 2007	223	0.01%	203	0.01%
Amdt. 207 FHFRA 2007	225	85.3%	194	98.4%
FHFRA Pssg. Vote 2007	224	54.0%	193	99.4%

This table presents summary statistics for the 435 congressional districts over eight congressional terms (103rd to 110th)

Table 2
Determinants of Key Mortgage Legislation (Industry Campaign Contributions):
American Dream Downpayment Act and Responsible Lending Act Co-sponsorship

	ADDA Co-sponsorship (2003)				Responsible Lending Act Co-sponsorship (2005)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log Mortgage Industry Contributions	**0.0163*** [0.00513]**	**0.0191*** [0.00528]**	**0.0113** [0.00556]**	**0.00977 [0.00635]**	**0.0192*** [0.00349]**	**0.0172*** [0.00349]**	**0.00390 [0.00310]**	**0.00390 [0.00307]**
Log Finance Contributions (Excl. Mortgage Industry/Subprime banks)		-0.00448 [0.0156]	-0.00964 [0.0162]	-0.0147 [0.0172]		0.00841** [0.00390]	0.00290 [0.00279]	0.00422 [0.00318]
Subprime share (<660)		-0.118 [0.229]	0.482 [0.450]			0.0793 [0.157]	-0.0467 [0.270]	
Ideology Score		0.168*** [0.0381]	0.136*** [0.0454]	0.129** [0.0499]		0.0227 [0.0253]	0.0190 [0.0287]	0.0219 [0.0319]
Does he/she serve of Finance committee?			0.358*** [0.0631]	0.347*** [0.0665]			0.382*** [0.0599]	0.415*** [0.0642]
Log Subprime Banks Contributions			-0.000116 [0.00543]	0.00182 [0.00617]			0.00263 [0.00320]	0.00251 [0.00342]
%age Hispanic			-0.421 [0.272]	-0.320 [0.286]			-0.0346 [0.160]	-0.00866 [0.186]
%age Black			-0.346 [0.229]	-0.378 [0.271]			0.158 [0.165]	0.150 [0.219]
Log Median HH Income			0.174 [0.251]	0.0543 [0.273]			-0.0390 [0.162]	-0.0368 [0.174]
%age in poverty			0.437 [1.154]	-0.0295 [1.217]			-0.408 [0.834]	-0.396 [0.879]
%age less than high school			0.234 [0.494]	0.0314 [0.529]			0.178 [0.271]	0.132 [0.296]
%age only high school			-0.0469 [0.458]	-0.169 [0.496]			0.229 [0.336]	0.317 [0.362]
Own-Party Subprime share (<660)				0.342 [0.472]				-0.0665 [0.363]
N	424	421	421	352	435	429	429	359
R^2	0.023	0.065	0.164	0.165	0.069	0.072	0.287	0.325

This table presents the determinants of co-sponsorship of key mortgage legislation. Robust standard errors in brackets. ***,**,* Coefficient estimate statistically distinct from 0 at the 1, 5, and 10 percent levels, respectively.

Table 3
Determinants of Key Mortgage Legislation (Constituents): Miller Legislation 2005 and 2007

	Co-sponsorship (2005)					Co-sponsorship (2007)				Passage Vote (2007)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Log Mortgage Industry Contributions	0.00523 [0.00414]	0.00731* [0.00408]	0.00183 [0.00400]	0.00277 [0.00472]	0.0097*** [0.00287]	0.0079*** [0.00273]	-0.00188 [0.00223]	-0.00190 [0.00270]	0.0138** [0.00566]	0.00561 [0.00385]	0.00596 [0.00430]	0.00574 [0.00452]
Log Finance Contributions (Excl. Mortgage Industry/Subprime banks)		-0.0169** [0.00779]	-0.0165** [0.00686]	-0.0196** [0.00848]		0.00420 [0.00482]	-0.00263 [0.00396]	-0.00106 [0.00384]		0.00654 [0.00670]	0.00531 [0.00757]	0.00301 [0.00710]
Subprime share (<660)		**1.075*** [0.192]**	**-0.574** [0.285]**			**0.267* [0.142]**	**-0.267 [0.238]**			**-0.192 [0.145]**	**0.163 [0.308]**	
Ideology Score		-0.324*** [0.0318]	-0.214*** [0.0371]	-0.261*** [0.0404]		-0.110*** [0.0211]	-0.105*** [0.0220]	-0.112*** [0.0241]		-0.696*** [0.0277]	-0.710*** [0.0314]	-0.720*** [0.0326]
Does he/she serve of Finance committee?			0.171*** [0.0419]	0.156*** [0.0411]			0.293*** [0.0487]	0.262*** [0.0508]			0.00183 [0.0449]	0.0145 [0.0479]
Log Subprime Banks Contributions			-0.00348 [0.00349]	-0.00285 [0.00393]			-0.00391* [0.00220]	-0.00429 [0.00272]			-0.000970 [0.00397]	-0.00101 [0.00419]
%age Hispanic			**0.495*** [0.183]**	**0.357* [0.200]**			**0.232* [0.128]**	**0.169 [0.140]**			**0.495** [0.195]**	**0.709*** [0.203]**
%age Black			**1.654*** [0.154]**	**1.489*** [0.188]**			**0.701*** [0.190]**	**0.637*** [0.210]**			**0.0178 [0.148]**	**0.225 [0.177]**
Log Median HH Income			-0.488*** [0.170]	-0.475*** [0.183]			-0.374*** [0.134]	-0.281** [0.142]			0.180 [0.188]	0.0269 [0.196]
%age in poverty			-1.861** [0.833]	-1.975** [0.916]			-1.937*** [0.666]	-1.781** [0.708]			0.250 [0.821]	-0.0550 [0.850]
%age less than high school			-0.407 [0.376]	-0.480 [0.410]			-0.141 [0.247]	-0.0747 [0.281]			-0.707** [0.346]	-0.766** [0.344]
%age only high school			-0.725** [0.321]	-0.754** [0.341]			-0.549** [0.263]	-0.458 [0.281]			1.298*** [0.376]	1.369*** [0.403]
Own-Party Subprime share (<660)				**-0.103 [0.310]**				**-0.0484 [0.277]**				**-0.351 [0.307]**
N	435	429	429	359	435	435	435	364	418	418	418	349
R^2	0.003	0.327	0.513	0.501	0.026	0.090	0.295	0.261	0.015	0.587	0.602	0.631

This table presents the determinants of co-sponsorship and voting of key mortgage legislation. Robust standard errors in brackets. ***,**,* Coefficient estimate statistically distinct from 0 at the 1, 5, and 10 percent levels, respectively.

Table 4
Determinants of Key Mortgage Legislation: Federal Housing Finance Reform Act of 2005

	Co-sponsorship				Amendment 600 (Rejected)				Passage Vote			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Log Mortgage Industry Contributions	**0.00903*** [0.00237]**	**0.00805*** [0.00231]**	**0.00372* [0.00198]**	**0.00305* [0.00173]**	**-0.00896* [0.00477]**	**-0.00543 [0.00462]**	**-0.00692 [0.00524]**	**-0.00157 [0.00592]**	**0.00324 [0.00517]**	**0.00124* [0.00539]**	**0.0122** [0.00583]**	**0.0109* [0.00661]**
Log Finance Contributions (Excl. Mortgage Industry/Subprime banks)		0.00509** [0.00243]	0.00363 [0.00254]	0.00240 [0.00242]		-0.00871 [0.0101]	-0.00339 [0.0105]	-0.0105 [0.0116]		0.0135 [0.0118]	0.0116 [0.0113]	0.00797 [0.0140]
Subprime share (<660)		-0.0111 [0.107]	0.0719 [0.196]			**-0.434** [0.169]**	**-1.186*** [0.388]**			**-0.237 [0.229]**	**1.007** [0.391]**	
Ideology Score		0.0818*** [0.0195]	0.0746*** [0.0209]	0.0761*** [0.0231]		0.333*** [0.0324]	0.381*** [0.0372]	0.348*** [0.0401]		0.330*** [0.0438]	0.235*** [0.0507]	0.251*** [0.0560]
Does he/she serve of Finance committee?			0.151*** [0.0452]	0.182*** [0.0490]			0.0643 [0.0503]	0.0651 [0.0554]			-0.240*** [0.0592]	-0.239*** [0.0632]
Log Subprime Banks Contributions			-0.00156 [0.00239]	-0.00172 [0.00247]			-0.00594 [0.00470]	-0.00888* [0.00537]			0.000652 [0.00528]	0.000631 [0.00586]
%age Hispanic			-0.0651 [0.178]	0.0248 [0.182]			0.325 [0.204]	0.143 [0.222]			-0.213 [0.240]	-0.155 [0.254]
%age Black			-0.0372 [0.107]	0.0492 [0.114]			0.605*** [0.169]	0.440** [0.190]			-0.831*** [0.245]	-0.941*** [0.249]
Log Median HH Income			0.0628 [0.155]	0.0789 [0.160]			-0.280 [0.215]	-0.135 [0.236]			0.291 [0.223]	0.256 [0.245]
%age in poverty			-0.230 [0.664]	-0.00827 [0.668]			-1.948** [0.905]	-1.402 [0.987]			0.608 [1.112]	0.437 [1.227]
%age less than high school			0.349 [0.330]	0.183 [0.296]			0.686 [0.439]	0.761 [0.478]			-0.143 [0.482]	-0.378 [0.528]
%age only high school			0.274 [0.309]	0.354 [0.323]			-0.429 [0.453]	-0.182 [0.505]			1.330*** [0.473]	0.980* [0.502]
Own-Party Subprime share (<660)				-0.0335 [0.191]				**-0.680* [0.359]**				**0.956** [0.386]**
N	435	429	429	359	419	413	413	343	421	415	415	345
R^2	0.030	0.070	0.139	0.174	0.009	0.229	0.253	0.233	0.001	0.180	0.271	0.272

This table presents the determinants of co-sponsorship and voting of key mortgage legislation. Robust standard errors in brackets. ***,**,* Coefficient estimate statistically distinct from 0 at the 1, 5, and 10 percent levels, respectively.

Figure 1A: Total Campaign Contributions and Lobbying

This figure presents total campaign contributions and lobbying expenditure by the mortgage industry over time.

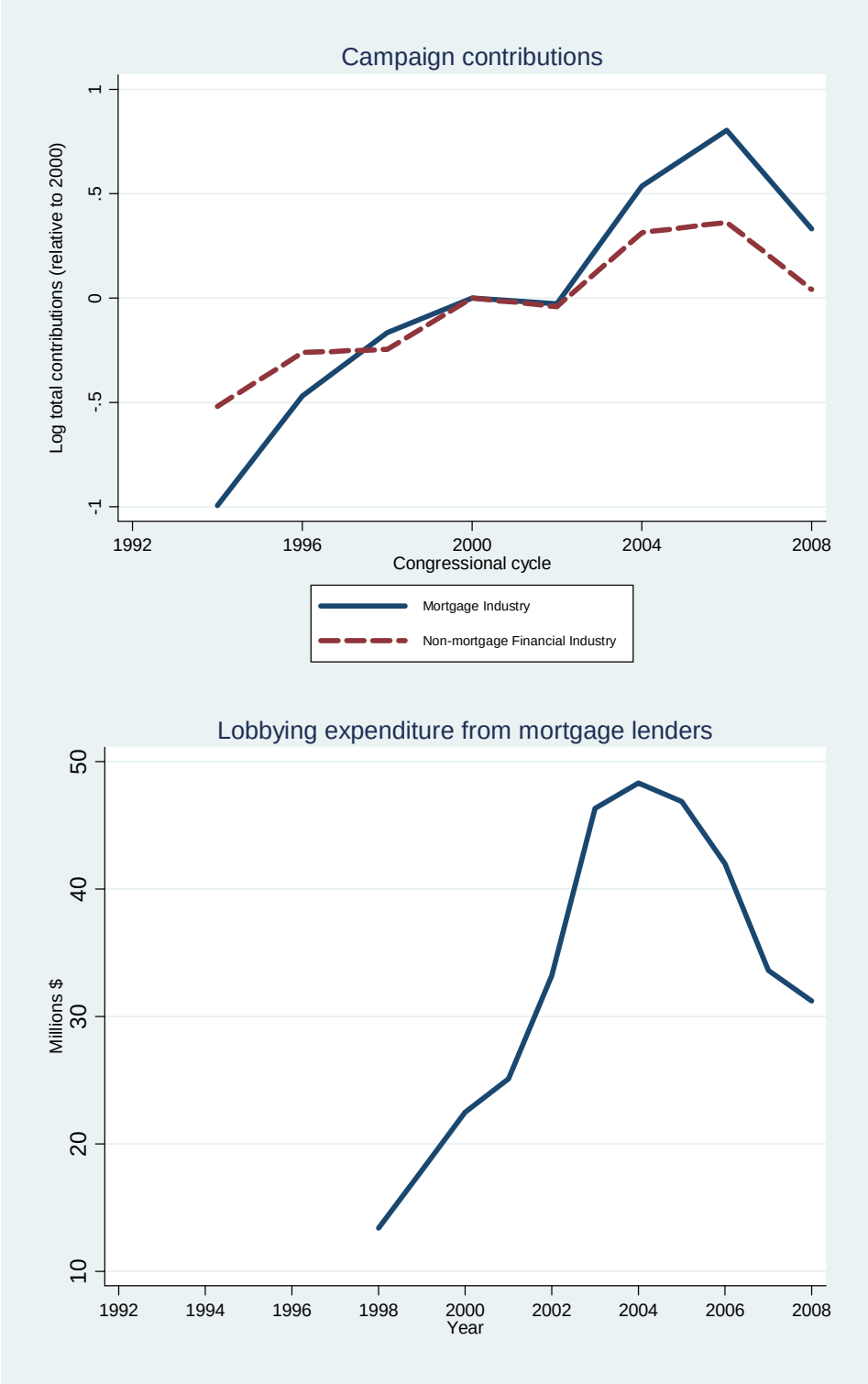

Figure 1B: Lobbying Expenditures In Reports Including HUD As Agency Lobbied

This figure presents Senate Office of Public Records lobbying expenditure by Fannie Mae, Freddie Mac and Countrywide over time. Amounts include the total dollar values reported across all issues and all agencies lobbied.

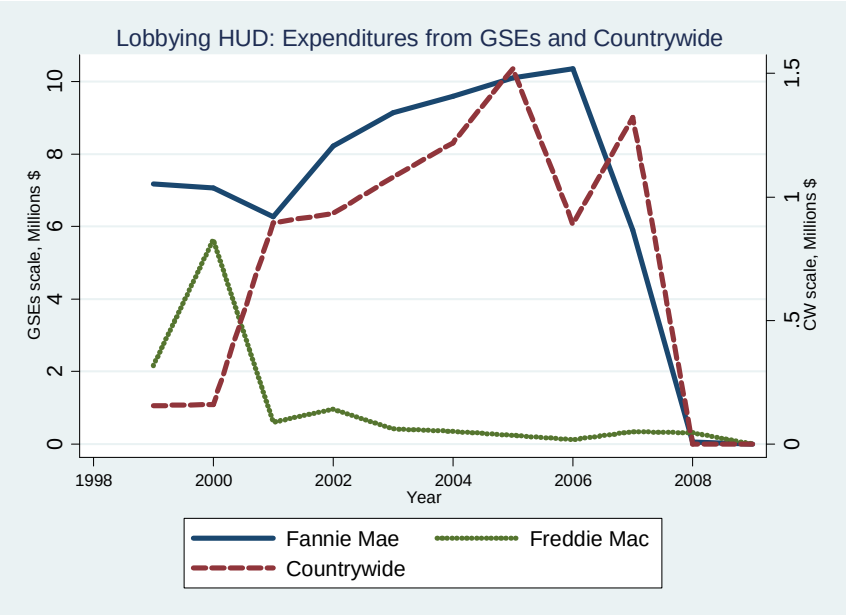

Figure 2: Relative Campaign Contribution Growth in Subprime Congressional Districts

The upper panel figure presents the relative growth in mortgage industry and non-mortgage/non-sub-prime banks financial industry campaign contributions in subprime congressional districts. It plots the coefficients β_t in the following specification (run at congressional district times congressional cycle level): $Y_{ct} = \alpha_t + \gamma * SubPrime_c + \beta_t * (SubPrime_c * \alpha_t) + \varepsilon_{ct}$, where Y_{ct} is log of campaign contributions (plus one) to a given congressional district during a congressional cycle, and $SubPrime_c$ measures the share of population in a district that has a credit score below 660 as of 1998. The "omitted" congressional cycle is 2000 in regressions. Since campaign contributions may be zero for some districts, we run a Tobit specification left-censored at zero. The second panel employs another definition of subprime district by only considering subprime voters of the same political affiliation of the representative from the district. The bottom panel considers only contributions of major subprime lenders from HUD in "*HUD Subprime and Manufactured Home Lender List*" (2005) as opposed to mortgage brokers and bankers.

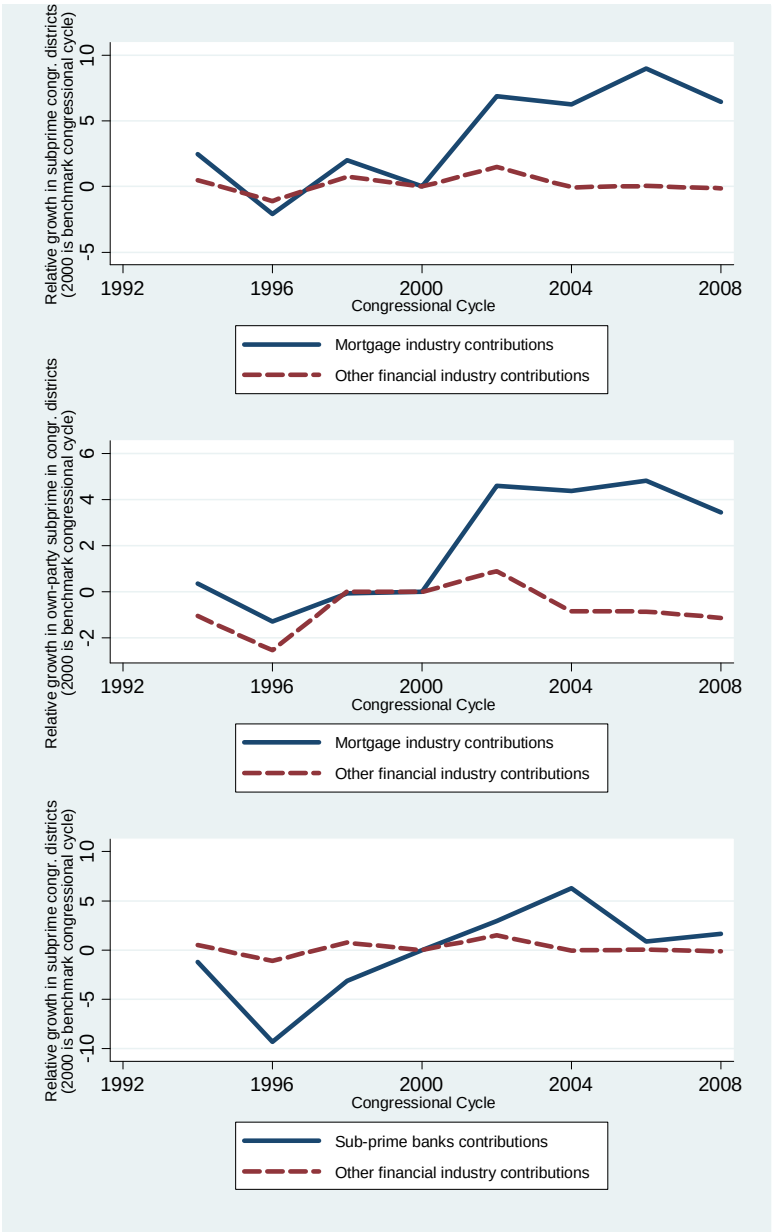

Figure 3: Total Mortgage-Industry Related Roll Calls

This figure presents the total number of roll call votes in each congressional cycle that are mortgage industry related. We classify a vote as "mortgage industry related" if it has any of the following three terms in its description: "affordable housing", "homeownership" and "subprime".

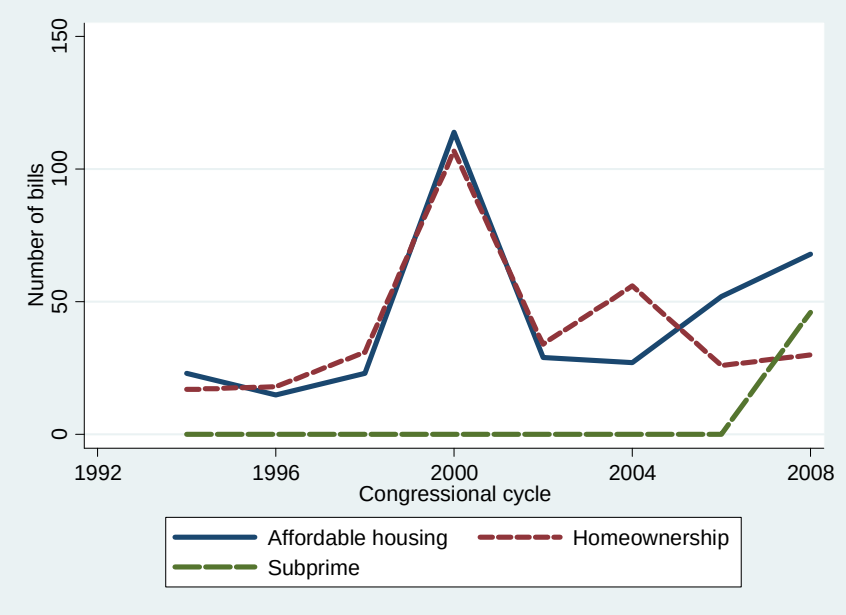

Figure 4: Sensitivity of Mortgage Legislation to Mortgage Special Interests

This figure plots the percentage of coefficients in each congressional cycle on variables representing special interest (log of mortgage industry campaign contributions to a congressional district) that are significant at 5% level. In each congressional cycle, we regress roll call votes on mortgage industry-related legislation on log of mortgage industry contributions, log of sub-prime bank contributions, log of non-mortgage industry contributions, share of subprime population, DW-nominate score, and controls for politician seniority, financial committee membership and congressional district income and demographics.

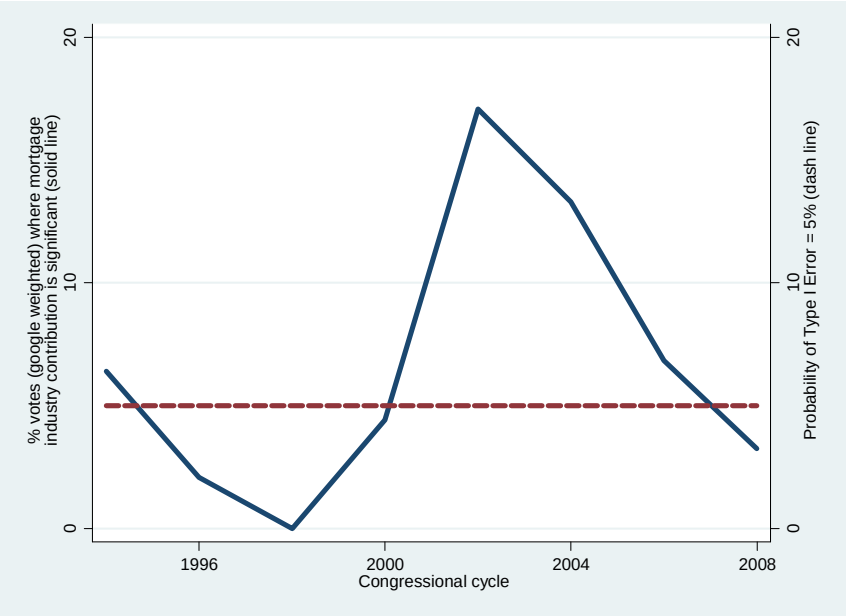

Figure 5: Sensitivity of Mortgage Legislation to Constituent Interest

This figure plots the percentage of coefficients in each congressional cycle on variables representing constituent interest (fraction of congressional district population that is "subprime") that are significant at 5% level. In each congressional cycle, we regress roll call votes on mortgage industry related legislation on log of mortgage industry contributions, log of sub-prime bank contributions, log of non-mortgage industry contributions, share of population that is subprime, DW-nominate ideology score, and controls for politician seniority, financial committee membership and congressional district income and demographics.