The Political Economy of the U.S. Mortgage Default Crisis

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Abstract

We examine how constituent interests and special interests influence U.S. government policies toward the housing sector during the mortgage credit expansion from 2001 to 2006 and subsequent default crisis of 2007 and 2008. Using a unique disaggregated data set on mortgage defaults and consumer credit scores, we estimate the direct effect of constituent interests on congressional voting patterns: We show that the fraction of mortgage defaults in congressional districts strongly predicts congressional voting behavior on the American Housing Rescue and Foreclosure Prevention Act of 2008, even after controlling for a politician's ideology. We also show that during the expansion in subprime mortgage credit from 2001 to 2006, representatives from districts with a high share of subprime borrowers experience a sharp relative increase in campaign contributions from the mortgage industry. This latter finding suggests that special interests recognized a role for Congress in the subprime mortgage expansion and directed their effort to representatives of districts where constituents were more likely to obtain newly available subprime mortgages.

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1 Introduction

Over the last decade, the U.S. housing sector has experienced one of the most dramatic cycles in its history. An unprecedented expansion in mortgage credit, especially to lower credit quality households, has been followed by a sharp reversal with default rates rising across the country. As the ensuing credit and financial crisis has threatened the economy, there has been an increasing focus on the role of the U.S. government in the housing cycle. Anecdotal evidence has suggested that the U.S. government played an important role in the expansion of credit to subprime households from 2001 to 2006. In addition, the U.S. government has confronted the current default crisis with one of the most significant pieces of housing legislation passed in recent history.

Despite the urgency of the current housing crisis and the important role of government institutions in the housing market, there is a lack of empirical research that explores the political economy of the housing sector. Broadly speaking, government policy is determined by the confluence of four factors: political parties, constituent interests, politician's ideology, and special interests. This paper identifies the relative role played by these factors in determining housing policy during the expansion from 2001 to 2006 and the subsequent default crisis of 2007 and 2008.

Our starting point is congressional voting behavior on the recently passed American Housing Rescue and Foreclosure Prevention Act of 2008 (AHRFPA, H.R. 3221) which provides up to $300 billion in mortgage guarantees, unlimited financial support for Freddie Mac and Fannie Mae, and significant tax credits for first-time homebuyers. We isolate the extent to which votes are driven by ideological positions versus pressure from constituents. Previous research has difficulty separating the effects of ideology versus constituent interests on congressional voting behavior because legislators with a track record of voting conservative (the most common measure of ideology) also represent districts in which constituent interests are aligned with the conservative agenda.

We overcome this difficulty by exploiting cross-sectional variation in the change in mortgage default rates since 2006. While politician ideology does not change in the short run, there are sharp changes in constituent interests with regards to mortgage subsidies as a result of the housing crisis. Using unique zip code level data on mortgage defaults, we are able to precisely measure changes in constituent demand for mortgage relief at the district level, and we find that U.S. representatives from high mortgage default districts are more likely to vote in favor of the AHRFPA, even after controlling for ideology and district demographic characteristics. When we decompose the 2007 year end default rate into the 2005 year end default rate and the change in default rate from 2005

to 2007, we find that politicians are primarily responding to the *change* in the default rate. Since ideological preferences are fixed in the short run, this result further strengthens the interpretation that representatives respond directly to constituent interests. Our preferred estimate implies that a one standard deviation increase in mortgage default rates in 2007 leads to 12.5 percentage point increase in the likelihood of voting for the AHRFPA.

Representatives are also remarkably precise in responding to their constituent's interests. Since the mortgage bill has no impact on voters with credit card or auto defaults, a representative should not change his voting behavior if the percentage of non-mortgage related defaults changes. We find that defaults on non-mortgage debt (credit card, auto loans, etc.) have no predictive power in determining votes on the AHRFPA, while mortgage debt default rates have strong predictive power.

We also find evidence in support of the view that representatives respond to constituent interests due to electoral pressure. Representatives are more likely to respond to an increase in their constituents' default rates by voting in favor of AHRFPA if their election is closely contested or if their district lies in a presidential swing state.

We find that constituent interests are a powerful determinant of voting behavior on legislation introduced in response to the crisis; we also provide evidence on the role of special interest politics in the subprime mortgage credit expansion that precedes the default crisis. More specifically, we find a dramatic increase in aggregate spending by the mortgage bankers and brokers industry both in terms of campaign contributions and federal lobbying expenditures over the 2001-2006 period. More interestingly, we find that mortgage industry campaign contributions toward high subprime districts experience a sharp increase after 2000 relative to mortgage industry contributions toward districts with a low fraction of subprime borrowers. The sharp relative rise in campaign donations to high subprime districts coincides with a sharp relative expansion in mortgage credit to these same high subprime areas (Mian and Sufi (2008)). The magnitudes are economically meaningful: a one standard deviation increase in subprime share of the population leads to a relative increase in the growth rate of campaign donations by mortgage lenders of 54 percent. We also show that there is *no* corresponding relative increase in campaign donations to high subprime areas by non-mortgage financial industries; the increase is concentrated in donations by mortgage lending institutions.

The sharp relative increase in campaign donations to representatives from high subprime districts coincides with key U.S. government actions that were designted to increase mortgage lending

to subprime areas: e.g., the passage of the American Dream Downpayment Act of 2003 and the increase in the affordable housing mandate given to Freddie Mac and Fannie Mae by the Department of Housing and Urban Development in 2004. In addition, despite pressure from consumer advocacy groups, there is little evidence of attempts to impose stricter regulation on the mortgage industry during the explosive growth of subprime mortgages. In fact, to the contrary, we show that the 2005 Ney-Kanjorski mortgage regulation bill, which curtailed state anti-predatory lending laws and was widely supported by the mortgage industry, was cosponsored by a bipartisan group of legislators that received significantly larger campaign contributions from the mortgage industry than non-sponsors. While it is difficult to conclusively link these government actions to the increase in mortgage industry campaign donations to high subprime districts, the pattern in donations suggests that special interests recognized a role for the U.S. Congress in the mortgage expansion and directed their efforts towards representatives more likely to gain electorally from it.

Our results are related to recent research exploring the subprime mortgage crisis and its causes (Dell'Ariccia, Igan, and Laeven (2008); Demyanyk and Van Hemert (2008); Doms, Furlong, and Krainer (2007); Gerardi, Rosen, and Willen (2007); Keys, Mukherjee, Seru, and Vig (2008); Mayer and Pence (2008); Mian and Sufi (2008)). However, we are the first, to our knowledge, to examine the political economy of the mortgage crisis. We believe that this study is a necessary first step for further research into the role of the U.S. government in both the expansion of the housing sector and its subsequent collapse.

Our results also represent a contribution to the wider political economy literature on constituent and special interest politics. In particular, by leveraging the suddenness of the mortgage crisis shock, our analysis can precisely isolate the effect of constituent interests from ideology and district demographics on Congressional voting patterns, which is related to work by Poole and Rosenthal (1985, 1997), Heckman and Snyder (1997), Peltzman (1984 and 1985), Grier and Munger (1991); Levitt (1996), and, with specific reference to consumer bankruptcy reform, Nunez and Rosenthal (2004). Admittedly, our constituent interest results are limited to legislation on the mortgage default crisis. However, the AHRFPA of 2008 is a crucial piece of legislation supporting one of the most dramatic government interventions in the economy in recent history, and the act forced the U.S. federal government to raise its national debt ceiling by almost $1 trillion.[1] Concerning special

[1] New York Times, July 24th, 2008: "[The legislation] would rank in importance with the creation of the Home Owners' Loan Corporation to prevent foreclosures in the 1930s as part of the New Deal, and legislation in 1989 responding to the savings and loan crisis." Wall Street Journal, July 24th, 2008: "... this is the most important piece

interest politics, by focusing on the differential paths of political contributions across industries and districts over time, this our methodology is a novel indirect approach to the analysis of special interest influence in absence of measurable policy outcomes.[2] Indeed, it is sometimes the lack of new legislation or regulation that is more indicative of the role played by special interests.[3]

The rest of our analysis proceeds as follows. The next section provides background on government policies that are related to the mortgage expansion and subsequent default crisis. Section 3 presents the data and summary statistics. Section 4 presents results on the determinants of Congressional voting behavior on the AHRFPA. Section 5 presents results on the determinants of government policies during the subprime mortgage expansion, and Section 6 concludes.

2 Government Policy and the U.S. Housing Sector: 2001 to 2008

In this section, we provide background on U.S. government policy toward the housing sector. We focus in particular on government policy that may have contributed to the mortgage credit expansion from 2001 to 2006, and the government response to the subsequent mortgage default crisis of 2007 and 2008. In Section 3, we begin our analysis of the determinants of these government policies.

2.1 Government Policy and the Mortgage Credit Expansion

The U.S. household sector experienced a dramatic increase in mortgage debt from 2001 to 2006. According to the Flow of Funds data of the Federal Reserve, mortgage debt as a fraction of total household debt increased from 66% in 2000 to 87% in 2005. Mian and Sufi (2008) use credit bureau data from Equifax and show that mortgage and non-mortgage consumer debt grew at a similar rate from 1992 to 2002. However, from 2003 to 2006, mortgage debt grew by almost 150%, whereas non-mortgage consumer debt grew by less than 50%.

of housing legislation to come along in a generation."

[2] In this we differ from standard analysis of special interest politics where policy outcomes are clearly measurable. Examples are trade policy, such as empirical tests of Grossman and Helpman (1994) protection for sale model (Gawande and Bandyopadhyay (2000) and Goldberg and Maggi (1999)) or agricultural policy (see, among the others, Stratmann (1991)).

[3] For an extensive survey of the role played by political contributions see Stratmann.(2005). Our analysis of the use of contributions by special interests is related to standard informational lobbying arguments (Austen-Smith (1987) and (1995)).

During the mortgage credit expansion, the growth rate in mortgage debt was relatively stronger for low credit quality borrowers. For example, Gabriel and Rosenthal (2007) show that origination rates for subprime specialist lending institutions more than doubled from 2000 to 2004. Mian and Sufi (2008) show that zip codes with a high share of subprime borrowers in 1996 experienced strong relative growth in both originations and mortgage debt from 2001 to 2005. The magnitudes in Mian and Sufi (2008) are striking: their estimates suggest that a one standard deviation increase in the subprime share as of 1996 led to a one-half standard deviation increase in the growth rate of mortgage originations from 2001 to 2005. Both Gabriel and Rosenthal (2007) and Mian and Sufi (2008) attribute the relative growth in mortgages for low credit quality households to increased secondary market sales and securitization of subprime mortgages.

An increasing body of research suggests that the securitization of subprime mortgages during the expansion may have contributed to the subsequent increase in default rates. Keys, Mukherjee, Seru, and Vig (2008) show evidence that securitization during this time period led to reduced screening incentives of mortgage originators. Dell'Ariccia, Igan, and Laeven (2008) also argue that the increase in credit corresponded to a decrease in lending standards associated with securitization. Mian and Sufi (2008) show evidence consistent with the view that securitization decreased incentives of originators to properly screen and monitor borrowers, although they emphasize that their evidence is preliminary and requires more research. Demayanyk and Van Hemert (2008) show a deterioration of lending standards from 2001 to 2007, and conclude that the "rise and fall of the subprime mortgage market follows a classic boom-bust scenario, in which unsustainable growth leads to the collapse of the market."

The dramatic relative growth in mortgage credit to low credit quality households coincided with important U.S. government policies that may have contributed to this pattern. First, the Department of Housing and Urban Development (HUD) increased the affordable housing mandate for both Freddie Mac and Fannie Mae in 2000 and 2004.[4] 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

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

2006, the two agencies purchased $434 billion in securities backed by subprime loans.

Second, in December 2003, the American Dream Downpayment Act (ADDA, S. 811) 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.[5] According to HUD's website,[6] 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.[7]

Third, despite pressure from consumer advocacy groups,[8] 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. To the contrary, a major piece of regulatory legislation considered by the House of Representatives, the Responsible Lending Act (RLA) of 2005 (H.R. 1295) introduced by Rep. Robert Ney from Ohio and Rep. Paul Kanjorski from Pennsylvania, would have "preempt[ed] state mortgage laws with a federal standard" (Shenn (2005)). Consumer advocacy 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.[9] The Act was never passed, in part because Rep. Ney was implicated in the Jack Abramoff corruption scandal shortly after its introduction.

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

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

[7] 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."

[8] 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).

[9] 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."

2.2 Government Policy and the Mortgage Default Crisis

The expansion in mortgage credit has been followed by a dramatic increase in mortgage default rates. Mian and Sufi (2008) show that the aggregate default rate more than doubled between the fourth quarter of 2005 and the fourth quarter or 2007. The S&P/Case Shiller home price index shows a nominal decline of average house prices of almost 20% since the peak in 2006. Large losses on mortgage backed securities have paralyzed a large section of the financial industry, leading to a run on a major investment bank and a sharp decline in equity values for Freddie Mac and Fannie Mae.

The U.S. Congressional response to the crisis evolved between the summer of 2007 and the summer of 2008, concluding with the signing of the American Housing Rescue and Foreclosure Prevention Act (AHRFPA) on July 30, 2008 by President Bush.[10] The final version of the AHRFPA includes a number of provisions meant to aid the ailing housing sector. The act gives the U.S. government, through the Federal Housing Administration, the ability to insure $300 billion of refinanced mortgages. Such insurance is provided for mortgage lenders that voluntarily agree to reduce mortgage principal and delinquency fees.

The AHRFPA also increases the Treasury's authority under existing lines of credit to Freddie Mac, Fannie Mae, and the Federal Home Loan Banks for 18 months, giving Treasure standby authority to buy stock or debt in those companies. The amount of the line of credit is unlimited during these 18 months. In addition, the act increases FHA loan limits and provides tax breaks for first-time home buyers, both of which are attempts to increase the demand for housing. Finally, the act calls for a regulatory overhaul of the Office of Federal Housing Enterprise Oversight (OFHEO) by establishing the Federal Housing Finance Agency, which is charged with broad supervisory and regulatory powers over the operations, activities, corporate governance, safety and soundness, and mission of the Government Sponsored Enterprises (GSEs).

As noted in the introduction, the AHRFPA represents one of the most dramatic government interventions in the housing sector in recent history. As Paletta and Hagerty (2008) note, "as a result of the bill, Congress will raise the national debt ceiling to $10.6 trillion from $9.8 trillion."

[10] The following information comes from a document entitled "H.R. 3221: Detailed Summary" available at http://financialservices.house.gov/detailed_summary_of_hr_3221.pdf. See also Herszenhorn (2008), Montgomery (2008), and Paletta and Hagerty (2008).

3 Data and Summary Statistics

3.1 Data

Our analysis of the determinants of government policy toward the housing sector utilizes three main sets of data: consumer credit data, congressional electoral and voting data, and campaign contribution and lobbying expenditure data. Data on consumer debt outstanding and delinquency rates are from Equifax Predictive Services. Equifax collects these data from consumer credit reports, and aggregates the information at the zip code level. The availability of disaggregated geographical data on defaults and credit scores is a major advantage of our analysis, as it allows us to measure constituent interests as they relate to the mortgage credit expansion and default crisis. 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.[11] In the following analysis we define default amounts as any amount that is 30 days or more delinquent. The majority of our analysis focuses on mortgage default rates, but we also examine home equity and non-housing consumer debt default rates in some of the results. The Equifax data also include the distribution of credit scores in the zip code, which is useful for measuring the zip codes that are most likely to receive new mortgages during the expansion in subprime lending.

In order to aggregate zip code level data to the congressional district level, we utilize the MABLE-Geocorr software.[12] One complication in the matching procedure is the redistricting 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 population is presented in 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. These

[11] See Mian and Sufi (2008) for further details on the Equifax data.

[12] 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 aggregates are population weighted sums.

data include party affiliation, vote margins in the November 2006 midterm elections, 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)).[13]

Our third main data set covers spending by special interest groups. In particular, our data set covers 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.[14] 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 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.[15] In robustness tests, we also examine contribution data for all industries listed by the CRP under the classification "Finance, Real Estate and Insurance".

Lobbying expenditure data also come from the CRP. 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 semestral level starting from 1998. 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 (ie., the House or the Senate). While

[13] 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.

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

[15] 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.

the data are useful in analyzing aggregate industry lobbying dynamics, no link can be traced to specific politicians.[16]

3.2 Summary Statistics

Table 1 presents summary statistics. Districts are separated by the party affiliation of the representative in the 110th Congress (2007-2008). While mortgage default rates for Democratic districts are higher than for Republican districts in both 2005 and 2007, both types of districts experience a sharp increase in default rates over these two years. For Republican districts, the increase in the mortgage default rate from 2005 to 2007 (2.2%) is equivalent to almost two standard deviations in the mortgage default level as of 2005 (1.2%). We also construct the "home default rate" by aggregating home equity defaults with mortgage defaults, and the combined variable closely mirrors the the mortgage default rate.

Table 1 also includes information on the non-home default rate, which includes defaults on credit card debt, auto debt, consumer loans, and student loans. While the level of the non-home default rate is higher than the home default rate in 4th quarter 2007, non-home default rates do not increase sharply from 2005 to 2007. Another important variable for our analysis is the percentage of population in a district that is subprime, i.e. have a credit score of under 660 as of 1998. While there is significant variation in the percentage of subprime consumers across districts, its average is similar across Democratic and Republican districts.

In terms of politician's ideology, the DW nominate score, which is increasing in conservatism of the representative, is significantly lower for Democratic districts than for Republican districts. The vote margins for Democrats are on average larger, which reflects the strong performance of Democrats in the 2006 Congressional mid-term election.

The bottom part of Table 1, reports information concerning political contributions by the mortgage industry and by all other industries in the Finance sector. Political contribution data is available for each congressional term starting from 1990 to 2008. In Table 1, we split political contributions into a pre-mortgage expansion period (1993-2000) and a mortgage expansion period (2001-2008). Average contributions per congressional district from the mortgage industry more than double comparing the two samples, from $\$8,805$ to $\$18,343$ for Democrats and from $\$7,654$ to $\$16,986$ for Republicans. The growth rates in donations by the mortgage industry are also sig-

[16] For a discussion see Bombardini and Trebbi (2008b).

nificantly higher than the growth rates for non-mortgage financial industry campaign contributions.

The 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. For example, as Table 1 shows, we are able to separate mortgage and non-mortgage finance industry donations to each representative. However, the main drawback is the small magnitude of the donation amounts. This is in part due to the fact that campaign finance laws put 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.[17] However, 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.

4 The American Housing Rescue and Foreclosure Prevention Act: The Role of Constituent Interests

We begin our analysis of the determinants of government policy toward the housing sector with a focus on Congressional voting patterns on the AHRFPA of 2008. As discussed in Section 2, the AHRFPA represents a major government intervention designed to reduce foreclosures through a $300 billion program of FHA-backed refinanced mortgages. In our analysis we focus on two pivotal U.S. House of Representatives roll call votes.[18] The first vote is the 301 roll call (May 8, 2008) concerning the $300 billion federal housing guarantee amendment.[19] The second vote is roll call 519 (July 26, 2008), which was conducted after the president lifted a veto threat.[20] Given that the

[17] See Ansolabehere, Snyder and Tripathi (2002) and Bombardini and Trebbi (2008a,b) for a discussion.

[18] All voting data are collected from the Library of Congress THOMAS (thomas.loc.gov/).

[19] "On Agreeing to the Senate Amendment with Amendment No. 1: H R 3221 Foreclosure Prevention Act of 2008". The Wall Street Journal (May 9, 2008) refers to the vote as follows: "The House voted 266-154 in favor of the centerpiece of the legislation – $300 billion in federal loan guarantees – despite a White House veto threat." In particular, "The heart of the legislation is a program to help struggling homeowners by providing them with new mortgages backed by the Federal Housing Administration. The guarantees would be provided if lenders agree to reduce the principal of a borrower's existing mortgage."

[20] "Concur in Senate Amendment with House Amendment: H R 3221 Foreclosure Prevention Act of 2008".

AHRFPA is designed to reduce foreclosures through principal forgiveness on mortgages in payment default, we measure constituent support of the legislation using the mortgage default rate in the district as of the end of 2007.

4.1 The Effect of Constituent Interests: Baseline Estimates

Table 2 presents initial evidence on the importance of constituent interests in explaining voting patterns on the AHRFPA. Table 2 shows that no Democrat votes against the $300 billion federal housing guarantee amendment on May 8, 2008, and only three vote against the final resolution passed on July 26th, 2008. While the majority of Republicans vote against the legislation, there is a substantial fraction of Republicans that vote in favor. Furthermore, Republicans that vote in favor of the final resolution have an average mortgage default rate that is 1.3 percentage points higher than Republicans that vote against the resolution. This represents almost a full standard deviation difference in the default rates of Republicans voting for and against the AHRFPA.

Figure 2 examines the correlation between mortgage default rates and the propensity to vote in favor of the AHRFPA. We focus only on Republicans given that Democrats vote almost unanimously for the AHRFPA. Figure 2 plots the non-parametric relation between mortgage default rates and the propensity to vote in favor of AHRFPA by Republican legislatures. Republicans from higher default rate areas are more likely to vote in favor of AHRFPA. The effect appears across the distribution, and is particularly strong when default rates rise above 7%.

Table 3 presents regression estimates of the effect of mortgage default rates on voting patterns for Republicans. Column 1 reports the effect of mortgage default rate on the propensity of voting for the legislation from a linear probability regression. The estimate of 6.68 is statistically significant at the 1% level, and implies that a one standard deviation increase in mortgage default rate leads to a 12.7 percentage point increase in the likelihood of voting for AHRFPA. Column 2 reports the marginal effect estimate from a maximum likelihood probit estimation, and is almost identical to the linear probability estimate.

While the results in Columns 1 and 2 suggest that constituent interests lead Republicans to vote in favor of the AHRFPA, a remaining concern is that the mortgage default rate proxies for ideology or other factors unrelated to constituent interests. In Column 3, we report results when deconstructing the 2007 default rate into the 2005 level default rate and the change from 2005 to 2007. As the results show, it is the change in the default rate from 2005 to 2007 that leads

Republicans to vote in favor of the legislation, not the level in 2005. Given that politician ideology is unlikely to change dramatically in just two years, these results help mitigate the concern that default rates lead to votes in favor of the AHRFPA through an ideology channel.

In Column 4, we present estimates from a specification that includes the DW nominate score as an explicit measure of ideology. The inclusion of the DW nominate score does not change the estimate on the 2007 mortgage default rate, which also mitigates the concern that default rates proxy for ideology. We want to emphasize that the DW nominate score, which is based on previous roll call votes of the representative in question, may also proxy for constituent interests, a point acknowledged in both Levitt (1996) and Nunez and Rosenthal (2004). As a result, the inclusion of this variable does more than control for ideology: It may also capture some of the effect of constituent interests.

In Columns 5 and 6, we present estimates from further robustness tests that including state fixed effects (Column 5) and census demographic characteristics (Column 6). The census characteristics are from the 2000 decennial and include the fraction of black households, fraction of hispanic households, the natural logarithm of median household income, the fraction of households living in poverty, the fraction with less than a high school education, and the fraction with only a high school degree. The estimates in Columns 5 and 6 are slightly smaller, but are similar qualitatively.

We want to emphasize that the inclusion of state fixed effects and census demographic characteristics in Columns 5 and 6 leads to estimates of the effect of constituent interest on voting patterns that are extermely precise and very conservative. The reason is that, to some degree, state level characteristics and zip code level demographics also measure constituent interests. For example, the fraction of households that are hispanic and the 2007 year end mortgage default rate are highly correlated (0.51 correlation coefficient). In other words, it is not obvious that demographic variables should be viewed as control variables when trying to estimate the effect of constituent interests. The fact that the mortgage default rate predicts votes in favor of the AHRFPA even after controlling for demographics strengthens our interpretation that representatives are responding precisely to constituent interests, and not ideology or some other district characteristic.

In Column 7, we present estimates from a falsification exercise of Column 1 by studying voting patterns before the mortgage default crisis. Here the dependent variable is the vote on the August 4, 2007 version of H.R. 3221 (roll call 832), the original legislative medium which evolved into the AHRFPA. Although the legislation as of August 2007 contained a very minor reference to the

housing sector, the act contained no specific mortgage protection provisions and was titled the "New Direction for Energy Independence, National Security, and Consumer Protection Act". As expected, mortgage default rates have no predictive power on the vote for the August 2007 version of the bill.

Finally, in Column 8, we present estimates from an ordered probit specification that exploits information on "switchers", or those Republicans that switch their vote from May 8, 2008 (Vote 301) to July 28, 2008 (Vote 519). Mortgage default rates should weigh heavily on the electoral prospects of Republicans who voted against the bill in May 2008 by opening them to criticisms from challengers. Hence, we would expect that switchers to an "Aye" vote to represent districts with high default rates. In total, 14 Republicans switch from voting for the legislation in May to against in July, and 19 switched from voting against the legislation in May to voting for in July. As the estimate in Table 3 demonstrates, Republicans from high mortgage default rate districts as of the end of 2007 are more likely to switch in favor of the legislation, and Republicans from low default rate districts are more likely to switch to voting against the legislation.

4.2 Precision in Targeting Constituent Interests

Table 3 shows that the mortgage default rate as of 2007 leads to votes in favor of the AHRFPA, even after controlling for ideology and district demographic characteristics. In Table 4, we show further evidence that representatives are extremely precise in targeting constituent interests. An advantage of the Equifax data on defaults is that we have disaggregated default rates on all consumer debt. As a result, we are able to see if voting behavior by Republicans responds to general consumer credit difficulties or if it responds precisely to the increase in mortgage default rates.

Panel A shows that default rates across different types of consumer credit are very highly correlated. For example, the mortgage default rate is highly correlated with the auto default rate (0.66) and the credit card default rate (0.58). Given these high correlations, one might conclude that it would be difficult for representatives to distinguish general consumer credit difficulty from mortgage specific defaults.

Panel B shows that representatives are extremely responsive to the home default rate (which includes mortgage and home equity defaults), even after controlling for the non-home default rate (which includes defaults on credit card debt, auto loans, consumer loans, and student loans). More specifically, Republicans from high home default rate districts are more likely to vote in favor of the

AHRFPA. The estimate implies that a one standard deviation increase in the home default rate leads to a 15 percentage point increase in the likelihood of voting for the AHRFPA. The estimation also shows that the non-home default rate has no predictive power in explaining votes on the AHRFPA. Taken together, the results in Panels A and B show that despite the high correlation between general consumer credit difficulty and mortgage defaults across districts, politicians appear to respond uniquely to mortgage defaults when deciding whether or not to vote for the AHRFPA.

4.3 Electoral Competition and Constituent Interests

The previous two subsections demonstrate that an important determinant of Congressional voting behavior on the AHRFPA is constituent interests. In this subsection, we show that the effect of constituent interests is stronger when the representative faces a more competitive race.

In Table 5, the primary measure of electoral competition is the margin of victory for the incumbent in the previous Congressional election in 2006. We focus in particular on districts where the margin of victory is quite low (less than 6%), given that there is likely not a difference in electoral competition in districts where the margins are quite large. In other words, a district with a margin of victory of 30% is likely as safe as a district with a 35% margin of victory. For the results reported in Columns 1, 2, and 3, we create indicator variables for competitive districts, where competitive is defined as a margin of victory of 2% (10 districts), 4% (18 districts), and 6% (23 districts), respectively. We then interact the competitive district indicator variable with the mortgage default rate as of the end of 2007. As the results demonstrate, the effect of constituent interests is stronger in competitive districts. The interaction effect is particularly strong when competitive is measured narrowly as a margin of victory below 4%, and it weakens when competitive is measured more broadly as a margin of victory below 6%.

In Column 4, we define the competitive district variable as 0 if the previous margin of victory is over 30%, and 0.30 minus the margin of victory if the margin of victory is less than 30%. For example, if the margin of victory in the 2006 election is 5%, the competitive district variable takes on the value 0.25. This functional form is a convex function of the margin of victory, and it is meant to capture the fact that districts with large margins are unlikely to be competitive regardless of whether the margin is 30 or 40%. The results in Column 4 also suggest that constituent interests matter more in districts that are competitive.

In Column 5, we define a competitive district as any district in a 2008 Presidential election

swing state. The motivation behind this test is the argument that these districts are likely to face heightened voter and media attention given the importance of the presidential election between John McCain and Barack Obama.[21] As the results in Column 5 demonstrate, Republicans are more responsive to constituent interests if they are in a presidential swing state. The swing state effect is economically large: Voting behavior on the AHRFPA is twice as sensitive to default rates for Republicans in a presidential swing state.

5 The Mortgage Expansion of 2001-2006: Special Interest Politics

As discussed in Section 2, the mortgage default crisis of 2007 and 2008 was preceded by strong growth in mortgage debt outstanding for U.S. households. This growth was concentrated in lower credit quality households, and fueled by the securitization of subprime mortgages. The U.S. government made decisions during the expansion that may have contributed to this growth. In this section, we explore patterns in mortgage industry campaign donations and lobbying efforts that may have influenced government policy toward the housing sector during the expansion.

5.1 Aggregate Trends in Mortgage Industry Lobbying Expenditure and Campaign Contributions

Figure 3 shows aggregate trends in mortgage industry lobbying expenditure (Panel A) and campaign donations (Panel B). As Panel A demonstrates, lobbying expenditures experience an 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.

Campaign contributions by the mortgage industry follow a similar pattern. From the 101st Congress (1989-1990) to the 105th Congress (1997-1998), mortgage industry campaign contributions increase by a steady amount. The 106th and 107th Congress witness a sharp increase in mortgage industry campaign donations; total donations increase from $4 million to over $12 million in just four

[21] The swing states are defined according to http://www.fivethirtyeight.com as of July 17th 2008. Swing states include Ohio, Missouri, Michigan, Florida, North Carolina, Nevada, Indiana, Montana, Virginia, Colorado, and New Mexico. Our results are slightly stronger if Pennsylvania is included.

years. While lobbying expenditure by the mortgage industry peaks in 2004, campaign donations peak slightly earlier.

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 (2008)). The increase also coincides with U.S. government policies that may have contributed to the subprime mortgage credit expansion; namely, the increase in the affordable housing mandate by HUD in 2000 and 2004, the passage of the ADDA in 2003, and the lack of federal regulatory intervention in the subprime mortgage market.

5.2 Mortgage Industry Campaign Donations and Subprime Constituents

A remaining question is whether the increase in campaign contributions and lobbying expenditures by the mortgage industry is 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. Subprime borrowers below 660 are the most likely recipients of new mortgages during expansion in securitization and subprime mortgage credit that occurs between 2001 and 2006.[22] Our analysis 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.

Figure 4 plots the β_t coefficients from the following linear regression specification:

$$\begin{aligned} Ln(MortgageIndustryContribution) &= \sum \delta_t * CongressionalCycleYear_t + \\ &\quad \sum \beta_t * CongressionalCycleYear_t * SubprimeShare_{1998} \end{aligned}$$

In other words, Figure 4 plots the differential increase in mortgage industry campaign contributions for congressional districts with a high fraction of subprime borrowers as of 1998. As the

[22] See Keys, Mukherjee, Seru and Vig (2008) 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 (2008) find that zip codes with a high fraction of borrowers with a credit score less than 660 experience a sharp relative increase in securitization from 2001 to 2005.

solid line in Figure 4 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 54%. 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.

One potential concern with the pattern in Figure 4 is that other general trends in congressional districts with a high subprime share of the population explain the relative pattern in mortgage campaign contributions. In order to test this alternative hypothesis, we plot in Figure 4 the analogous coefficients from a regression of campaign contributions by non-mortgage finance, real estate, and insurance companies. As the dotted line in Figure 4 shows, there is no relative increase in donations by non-mortgage industry financial companies. The relative increase in campaign contributions is concentrated in donations by the mortgage industry.

The sharp increase in mortgage industry campaign donations to high subprime districts after 2000 is statistically significant and robust. Since Figure 4 plots the coefficient estimates of a difference-in-differences specification, we follow the recommendation by Bertrand, Mullainathan and Duflo (2004) to compute statistically robust standard errors. In particular, we collapse the "pre" and "post" data around 2000 by aggregating mortgage campaign contributions in each districts over these two periods. We then take the log difference of mortgage campaign contributions, and regress it against the share of subprime population in a district. Thus each observation represents a congressional district. Column 1 in Table 6 shows that the growth in campaign contributions by mortgage industry is significantly higher for districts with large subprime population shares. The coefficient is significant at the 1% level, and quantitatively large as well. A one standard deviation increase in the share of subprime population leads to a 46 percentage point increase in growth of mortgage campaign contributions.

Column 2 repeats the exercise of Column 1, but replaces the dependent variable with the log change in non-mortgage financial industry contributions. The coefficient on subprime population share is now small and statistically insignificant. An F-test on the difference between the coefficients

in Column 2 and 1 comes in very significant, with the difference easily signficant at the 1% level.

Since Columns 1 and 2 follow congressional districts over time, one concern is that potential changes in congressional districts as a result of redistricting affect our results. The results in Columns 3 and 4 mitigate this concern by restricting the sample to districts which retain at least 50% of their pre-2002 population. The difference in coefficients between Columns 3 and 4 is even larger, suggesting that improving match quality reduces the attenuation bias due to measurement error. This is further confirmed by the results in Columns 5 and 6 that replicate the exercise after restricting data to destricts that retain at least 80% of their pre-2002 populations.

Taken together, the results in Figure 4 and Table 6 demonstrate a strong relative increase in mortgage industry campaign contributions to representatives from congressional districts with a high fraction of subprime borrowers. The increase was concentrated from 2002 to 2008, which is the exact period in which important government policies were implemented that may have contributed to the sharp increase in subprime mortgage lending. While our results do not directly link the campaign contributions to HUD's decision to increase the affordable housing mandate, the passage of the ADDA in 2003, or the lack of major regulatory intervention in the subprime mortgage market, they suggest that special interests recognized a role for the U.S. Congress in the mortgage expansion and directed their efforts towards representatives more likely to gain electorally from it. While the evidence is circumstantial, it is consistent with the view that special interest politics played a role in sustaining (or at least not hindering) the mortgage credit expansion.

5.3 Mortgage Industry Campaign Contributions and Legislation: The Ney-Kanjorski Bill

One difficulty in the analysis above is establishing a direct link between mortgage industry lobbying efforts and the specific policies of the government toward the housing sector during the credit expansion. The difficulty is due to a number of reasons. First, the decision to increase the affordable housing mandate for Freddie Mac and Fannie Mae was not made by the U.S. Congress; instead, it fell under the jurisdiction of HUD. It is possible that representatives in the U.S. Congress exerted pressure on HUD, but we cannot observe such pressure in our data. Second, the passage of the ADDA in 2003 was nearly unanimous, which leaves no variation to explain whether special interest efforts influenced voting patterns on this legislation. Finally, it is possible that a main goal of the mortgage industry lobbying efforts was the to prevent federal regulation of subprime mortgage

lending. It is difficult to measure the effectiveness of special interest activity when the outcome of interest is the absence of regulation.

On the latter issue, we attempt in this section to establish a more direct link between mortgage industry campaign contributions and subprime lending regulation by focusing on the Responsible Lending Act (RLA) of 2005 (H.R. 1295) introduced by Rep. Robert Ney and Rep. Paul Kanjorski. As discussed in Section 2, this piece of legislation was broadly supported by the mortgage industry, and broadly contested by consumer advocacy groups and officials from states with strict predatory lending regulations.

The RLA died before a House roll call vote, in part because Rep. Ney was implicated in the Jack Abramoff scandal. However, in addition to Rep. Ney and Rep. Kanjorski, there were 39 other cosponsors of the legislation. In Table 7, we examine the determinants of cosponsorship on the RLA. Given the pro-mortgage industry bias of the legislation, we examine whether campaign contributions by the mortgage industry in the 109th Congress (2005-2006) predict cosponsorship.

Column 1 shows that an increase in mortgage industry campaign contributions in the 109th Congress to a representative leads to a higher likelihood of that representative being a cosponsor on the RLA. The magnitude suggests that a one standard deviation in the natural logarithm of mortgage industry campaign contributions in the 109th Congress (4.00) leads to an 8 percentage point increase in the likelihood of being a cosponsor of the RLA. Given that only 9% of representatives are cosponsors, this represents an economically meaningful increase.

Column 2 shows that the effect of mortgage industry campaign contributions is robust to the inclusion of non-mortgage financial industry contributions. Columns 3 and 4 show that the effect is robust even after controlling for the default rate in 2005 and the share of households in the district that are subprime borrowers. In Column 5, the result is weaker with the inclusion of an indicator variable for the finance committee membership and census demographic controls, but remains positive and statistically significant at the 10% level. Finally, Column 6 shows that the campaign contributions by the mortgage industry in the 109th Congress predict cosponsorship, whereas the effect of campaign contributions in previous Congresses are significantly weaker.

The results in Table 7 demonstrate that mortgage industry campaign contributions predict cosponsorship on the RLA, which is widely believed to be a pro-mortgage industry piece of legislation. These findings demonstrate that mortgage industry campaign contributions have a direct effect on politicians considering regulation on the subprime mortgage market. While these results

do not establish a direct link between U.S. government policy toward the housing sector and the relative increase in campaign donations to high subprime share congressional districts, they show that mortgage industry campaign contributions affect politician behavior.

6 Conclusions

We examine the political economy of the U.S. mortgage credit expansion and subsequent default crisis, with a particular emphasis on the effect of constituent interests and special interests on U.S. government policies. We find strong evidence that constituent interests affect voting patterns of U.S. Representatives on the AHRFPA of 2008, which is one of the most important pieces of housing legislation passed in recent history. In contrast to previous research on the determinants of representative voting behavior, our unique disaggregated data set on mortgage default rates allows us to measure the direct effect of constituent interests on votes, even after controlling for politician ideology.[23] We find that politicians precisely target constituents with high mortgage default rates, and that constituent interests affect Congressional voting behavior more strongly when electoral competition is higher.

We also present evidence on the role of special interest politics in the mortgage credit expansion from 2001 to 2006. More specifically, we show a sharp increase in aggregate lobbying expenditures and campaign contributions by the mortgage industry that coincides with important U.S. government policies that aimed to increase lending to lower credit quality borrowers. In addition, we show a dramatic relative increase in mortgage industry campaign contributions to representatives from high subprime mortgage districts during this period of subprime mortgage credit expansion. Finally, we show that mortgage industry campaign contributions affect the probability of cosponsorship of a mortgage regulation bill supported by the mortgage industry and opposed by consumer advocacy groups. While we do not establish a direct causal link between special interest politics and U.S. government policies designed to increase mortgage lending to subprime borrowers from 2001 to 2006, our evidence suggests that the mortgage industry targeted politicians from areas where constituents were most likely to obtain newly available subprime mortgages.

We believe that our findings are a first step in a larger effort to understand the role of the U.S. government in the mortgage credit expansion and the subsequent default crisis. For example, did

[23] See Lee, Moretti, and Butler (2004) for evidence against electoral responsiveness of congressmen to constituent pressures.

the increase in the affordable housing mandate by HUD cause an increase in subprime mortgage lending? Did state predatory lending regulations reduce the impact of subprime lending on housing markets? Is the AHRFPA of 2008 effective at reducing mortgage default rates? We look forward to research that pursues these questions.

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Table 1
Summary Statistics for Congressional Districts

	Democrats						Republicans					
	N	Mean	SD	10th	50th	90th	N	Mean	SD	10th	50th	90th
Mortgage Default Rate (07Q4)	236	.068	.033	.035	.06	.11	199	.055	.019	.034	.052	.077
Mortgage Default Rate (05Q4)	236	.039	.024	.017	.034	.070	199	.033	.012	.017	.031	.049
ΔMortgage Default Rate (05Q4-07Q4)	236	.029	.024	.0056	.022	.066	199	.022	.020	.0047	.015	.048
Home Default Rate (07Q4)	236	.065	.032	.033	.058	.11	199	.053	.018	.033	.050	.073
Non-Home Default Rate (07Q4)	236	.092	.028	.059	.085	.13	199	.077	.016	.057	.077	.10
Percentage subprime population	236	.34	.096	.24	.32	.48	199	.32	.078	.23	.32	.43
DW Nominate Ideology Score	234	-.41	.19	-.63	-.40	-.20	195	.55	.18	.32	.53	.77
Vote Margin November 2006	236	48.99	31.49	7.58	41.93	100	199	26.67	20.64	4.50	23.58	41.82
Campaign Contributions, in $thousands												
Mortgage Industry Contributions 1993-2000	229	8.8	22.9	0.0	3.6	20.0	194	7.7	11.6	0.0	3.0	20.1
Mortgage Industry Contributions 2001-2008	236	18.3	28.1	0.5	7.9	47.8	199	17.0	25.5	0.0	6.3	48.8
ΔMortgage Industry Contributions	229	1.10	2.96	-1.51	.60	3.89	194	.63	3.56	-2.87	.66	3.68
Non-Mortgage Industry Contributions 1993-2000	229	388.2	520.3	73.7	270.2	741.7	194	340.7	266.8	100.8	266.6	699.7
Non-Mortgage Industry Contributions 2001-2008	236	539.0	501.3	132.3	359.4	1,173.5	199	595.5	483.0	152.1	430.7	1,370.8
ΔNon-Mortgage Industry Contributions	229	.39	.79	-.59	.40	1.34	194	.52	.76	-.45	.45	1.57

Congressional Districts are defined "Democrat" or "Republican" according to the winning party in that district in 2006 elections (110th Congress).

Table 2
Voting Patterns on the American Housing Recovery and Foreclosure Prevention Act of 2008 and Mortgage Default Rates

Panel A: 519 Vote (July 26, 2008)

	(1) Democrats	(2) Republicans	(3) Total / Difference
# Voting "Yes"	227 [0.068]	45 [0.065]	272 [0.0035]
# Voting "No"	3 [0.048]	149 [0.052]	152 [-0.0036]
Total / Difference	230 [0.020]	194 [0.013***]	424

Panel B: 301 Vote (May 8, 2008)

	(1) Democrats	(2) Republicans	(3) Total / Difference
# Voting "Yes"	229 [0.068]	39 [0.061]	268 [0.0063]
# Voting "No"	0	154 [0.053]	154
Total / Difference	229	193 [0.0079**]	422

Mortgage default rate in 4th quarter 2007 in square parentheses. Parentheses in the third column and row report difference in default rate. ***,**,* Differences are statistically different at the 1%, 5%, and 10% levels, respectively

Table 3
Constituent Interests and Voting Patterns on the AHRFPA of 2008

	Probit				State FE	Census Controls	Aug '07 Vote	Ordered Probit On "Switchers"
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Dependent Variable: Voted in favor of AHRFPA '08							
Mortgage Default Rate (07Q4)	6.68***	6.20***		6.50***	4.38**	5.13***	1.18	11.32***
	(1.45)	(1.45)		(1.30)	(2.30)	(1.82)	(1.86)	(5.20)
Mortgage Default Rate (05Q4)			1.01					
			(2.35)					
ΔMortgage Default Rate (05Q4-07Q4)			7.61***					
			(1.45)					
Ideology Score				-0.88***	-0.62***	-0.84***		0.50
				(0.15)	(0.20)	(0.15)		(0.44)
Constant	-0.13		0.03	0.36	--	-7.38	0.11	
	(0.08)		(0.09)	(0.12)		(3.70)	(0.11)	
N	194	194	194	190	190	190	182	184
R^2	0.09		0.12	0.23	0.45	0.23	0.004	

This table presents coefficient estimates relating voting patterns on the 519 Vote (July 26, 2008, passage of the AHRFPA of 2008) to the congressional district mortgage default rate as of 2007Q4. The sample includes voting Republicans only. Census controls in Column 6 include percentage Hispanic, percentage black, log of median household income, percentage below poverty, percentage less than high school, and percentage with high school only. Robust standard errors in parentheses. ***,**,* Coefficient estimate statistically distinct from 0 at the 1%, %5 and 10% levels, respectively.

Table 4
Targeting Constituents' Interests: Which Default Rate Matters for Votes on the AHRFPA of 2008?

Panel A: Correlation Matrix

	Mortgage Default Rate	Home Equity Default Rate	Credit Card Default Rate	Automobile Default Rate	Other Default Rate	Home Default Rate	Non-Home Default Rate
Mortgage Default Rate	1.00						
Home Equity Default Rate	0.75	1.00					
Credit Card Default Rate	0.58	0.68	1.00				
Automobile Default Rate	0.66	0.68	0.77	1.00			
Other Default Rate	0.58	0.71	0.82	0.77	1.00		
Home Default Rate	1.00	0.79	0.60	0.67	0.60	1.00	
Non-Home Default Rate	0.68	0.74	0.93	0.90	0.93	0.69	1.00

Panel B:

	Home Default Rate (07Q4)	Non-Home Default Rate (07Q4)	Ideology Score	Constant	N	R^2
Dependent Variable: Voted in favor of AHRFPA 2008	8.43 (2.01)***	-2.60 (2.27)	-0.87 (0.12)***	0.46 (0.15)***	190	0.23

Panel A shows correlations of default rates across congressional districts, and Panel B presents coefficient estimates relating voting patterns on the 519 Vote (July 26, 2008, passage of the AHRFPA of 2008) to the congressional district home and non-home default rate as of 2007Q4. The home default rate includes defaults on mortgages and home equity loans, and the non-home default rate includes defaults on credit card debt, auto loans, student loans, and consumer loans. The sample includes voting Republicans only. ***,**,* Coefficient estimate statistically distinct from 0 at the 1%, 5%, and 10% levels, respectively. All the pairwise correlations are significant at 1 percent.

Table 5
Do Politicians Respond More to Constituent Interests in More Competitive Districts?

	(1)	(2)	(3)	(4)	(5)
	Dependent Variable: Voted in favor of AHRFPA '08				
Competitive District	-0.12	-0.22	-0.034	-0.009	-0.34
	(0.30)	(0.23)	(0.25)	(0.0088)	(0.14)**
Mortgage Default Rate (07Q4)	6.13	6.20	6.34	4.13	4.592
	(1.37)***	(1.37)***	(1.38)***	(2.08)**	(2.05)**
(Mortgage Default Rate)**(Competitive District)	7.66	8.48	4.48	0.30	4.98
	(4.10)*	(3.65)**	(4.52)	(0.16)*	(2.53)**
Ideology Score	-0.81	-0.81	-0.83	-0.80	-0.86
	(0.15)***	(0.16)***	(0.16)***	(0.15)***	(0.15)***
Constant	0.33	0.32	0.32	0.38	0.46
	(0.13)**	(0.13)**	(0.13)**	(0.15)**	(0.14)***
Definition of Competition	Margin less than 2% in 2006	Margin less than 4% in 2006	Margin less than 6% in 2006	Linear Censored	Swing States
N	190	190	190	190	190
R^2	0.25	0.25	0.25	0.26	0.24

This table presents coefficient estimates relating voting patterns on the 519 Vote (July 26, 2008, passage of the AHRFPA of 2008) to the congressional district mortgage default rate as of 2007Q4. Each specification includes an interaction term that measures districts that are competitive for the incumbent in the November 2008 election. The sample includes voting Republicans only. Robust standard errors in parentheses. ***,**,* Coefficient estimate statistically distinct from 0 at the 1%, 5%, and 10% levels, respectively

Table 6
Mortgage Industry Campaign Contributions and High Subprime Congressional Districts

	Matching Quality = 0		**Matching Quality = 0.5**		**Matching Quality = 0.8**	
	(1)	(2)	(3)	(4)	(5)	(6)
	Dependent Variable: Change in Log Campaign Contributions					
	Growth in Mortgage Campaign Contributions	Growth in Non-Mortgage Campaign Contributions	Growth in Mortgage Campaign Contributions	Growth in Non-Mortgage Campaign Contributions	Growth in Mortgage Campaign Contributions	Growth in Non-Mortgage Campaign Contributions
Subprime Population Share	5.20	0.26	6.54	1.00	7.62	0.13
	(1.78)***	(0.47)	(1.93)***	(0.44)**	(2.56)***	(0.58)
Constant	-.86	0.33	-1.43	0.09	-1.81	0.39
	(0.61)	(0.16)**	(0.67)**	(0.16)	(0.89)**	(0.20)**
Difference in Coefficients	4.94***		5.54***		7.49***	
F-test on Equality of Coefficients	9.20		9.47		9.60	
N	423	423	340	340	214	214
R^2	0.02	0.0007	0.033	0.015	0.04	0.00

This table presents growth patterns in mortgage industry campaign contributions from the pre-mortgage credit expansion period (1993-1999) to the expansion period (2000-2008). The table presents estimates of the differential growth pattern based on the share of the population that is subprime (credit score less than 660) as of 1998. This table also presents estimates of the differential pattern in growth rates of non-mortgage financial industry campaign contributions. The table presents findings for the full sample and for congressional districts with a high matching quality, where matching quality refers to the fraction of the pre-2002 population in a district that remains in the same district after redistricting in 2002 (see Figure 1). Robust standard errors in parentheses. ***,**,* Coefficient estimate statistically distinct from 0 at the 1% , 5% and 10% levels, respectively.

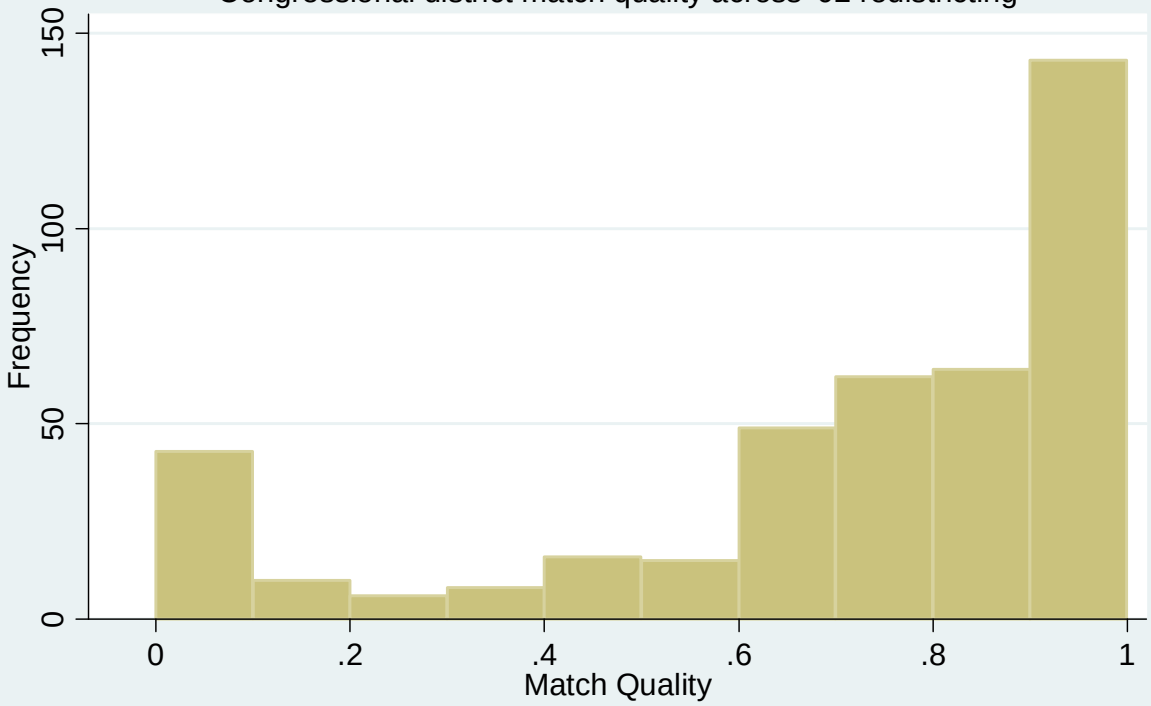
Table 7
Ney-Kanjorski Bill Cosponsorship and Mortgage Campaign Contributions

	(1)	(2)	(3)	Census Controls (4)	Census Controls and Finance Committee Dummy (5)	Different Batches of Political Contributions (6)
	Dependent variable: Ney-Kanjorski Cosponsorhip					
Mortgage Campaign Contributions (109th)	0.019	0.017	0.019	0.018	0.005	0.015
	(0.003)***	(0.003)***	(0.003)***	(0.004)***	(0.003)*	(0.003)***
Non-Mortgage Campaign Contributions from Finance Sector		0.009		0.008	0.003	
		(0.004)**		(0.004)*	(0.003)	
Subprime Population Share			-0.098	-0.110	0.022	
			(0.211)	(0.307)	(0.276)	
Mortgage Default Rate (05Q1)			0.977	0.503	-0.608	
			(1.023)	(1.254)	(1.144)	
Mortgage Campaign Contributions (108th)						0.006
						(0.004)*
Mortgage Campaign Contributions (107th)						0.001
						(0.004)
N	435	435	435	429	429	423
R^2	0.07	0.07	0.07	0.09	0.29	0.07

This table presents estimates relating cosponsorship on the Ney-Kanjorski Responsible Lending Action of 2005 to mortgage industry campaign contributions. Census controls in Column 4 include percentage Hispanic, percentage black, log of median household income, percentage below poverty, percentage less than high school, and percentage with high school only. Robust standard errors in parentheses. ***,**,* Coefficient estimate statistically distinct from 0 at the 1% , 5% and 10% levels, respectively.

Figure 1

Congressional district match quality across '02 redistricting



Match Quality is the percentage of population in 2002 district that belongs to the same district in 2003.

Figure 2

AHRFPA '08 vote against mortgage default rate in Republican districts

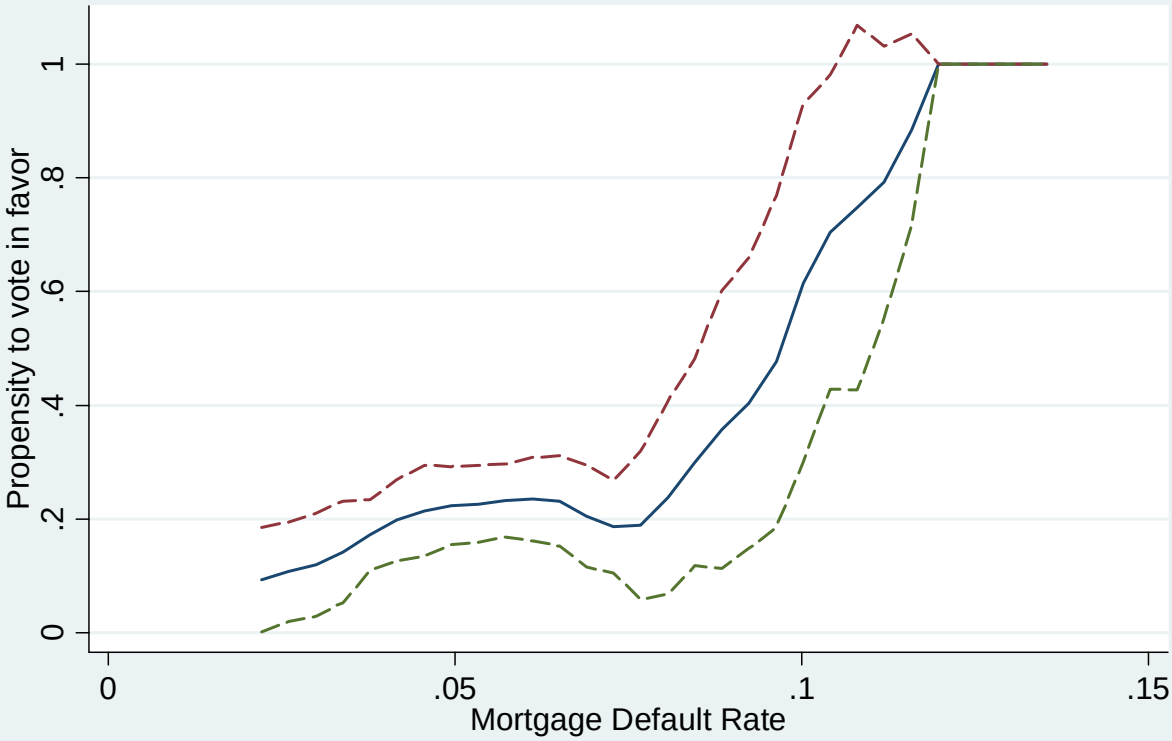
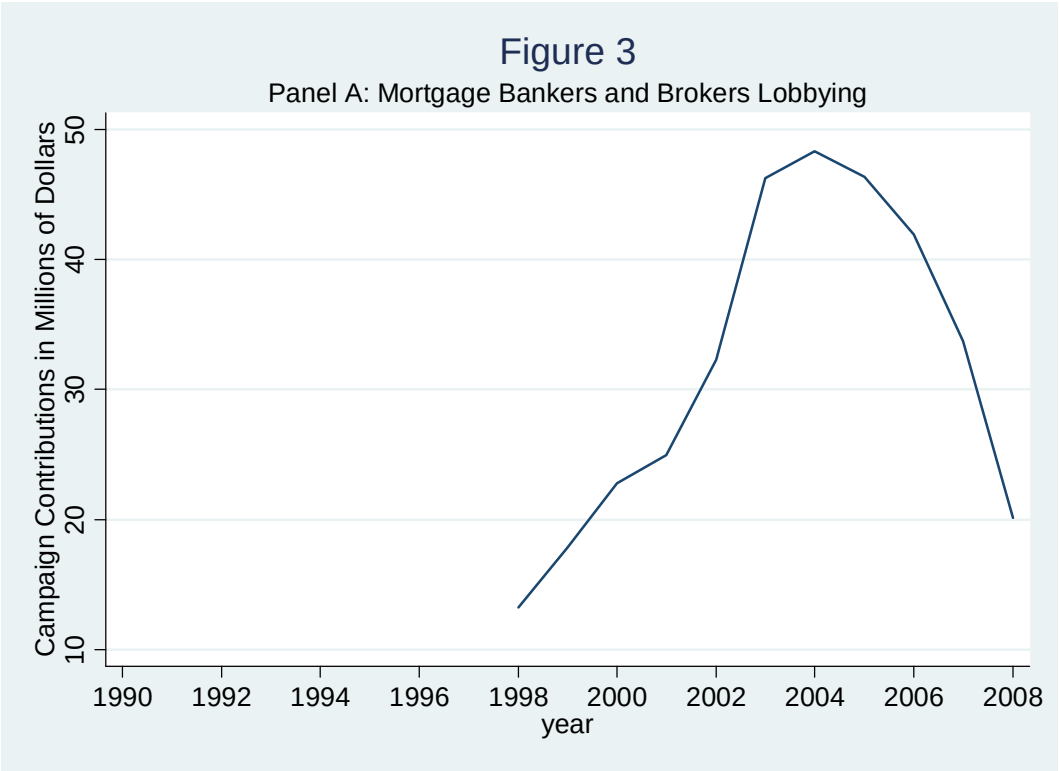


Figure 3


Panel A: Mortgage Bankers and Brokers Lobbying
Campaign Contributions in Millions of Dollars
10
20
30
40
50
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
year

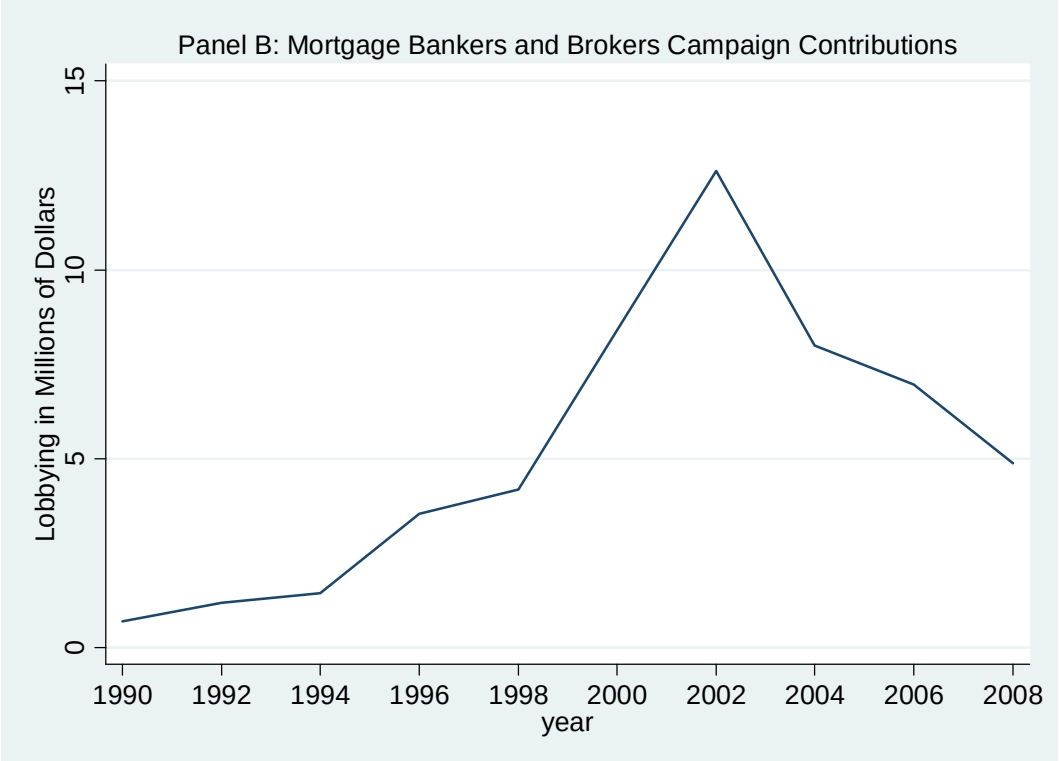

Panel B: Mortgage Bankers and Brokers Campaign Contributions
Lobbying in Millions of Dollars
0
5
10
15
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
year

Figure 4

Relative growth of mortgage and non-mortgage lobbying in sub-prime districts