

Lending to Influence Politicians: County-level Evidence *

Siddharth Vij

NYU Stern

July 2017

Abstract

Using changes in the composition of the US House Financial Services Committee as a shock to a region's political importance, I provide evidence that financial institutions alter lending patterns depending on whether a county is represented by a member of the committee. The effects are asymmetric – on gaining a member, counties see no immediate change but on losing a member, there is a decline in home mortgage loans originated. This asymmetry is consistent with models that emphasize reputation building in the market for political favours. Effects are greater where the politician receives less direct contributions suggesting that these indirect contributions might be substitutes for direct giving. In the presence of limits on campaign contributions, these results emphasize alternate channels that firms may employ to influence politicians.

*I thank Viral Acharya, Andres Liberman, Philipp Schnabl, David Yermack and participants at the NYU Stern Finance PhD Ideas Workshop for helpful suggestions. All errors are my own. Email: svij@stern.nyu.edu

1 Introduction

Firms, particularly in regulated industries or under shaky legal regimes, may benefit through connections to those wielding political power. This is the basis for a vast literature that aims to identify political connectedness and quantify its benefits (see [Khwaja and Mian \(2011\)](#) for a recent survey). Recent empirical research has confirmed that political connections add substantial value even in a developed economy like the US. Firms see an increase in value when politicians they are connected to through political contributions ([Akey, 2013](#)) or social ties ([Do, Lee, and Nguyen, 2013](#)) win close elections. In fact, the magnitude of the increase is substantial at well over 1% on average. Despite this seemingly large benefit, firms do not seem to invest as heavily in politicians as the returns would seem to warrant. For instance, as reported in [Igan and Mishra \(2014\)](#), the total targeted political activity in the form of campaign contributions and lobbying expenditure in the US was a mere \$5.26bn in the 2005-06 Congressional cycle¹.

However, it is possible that firms are investing in political connections in ways that are not captured by the direct measures. Limits on the amount of direct campaign contributions might lead firms to employ indirect means. This paper proposes one such alternate channel – firms making greater business investments in a geographic location represented by an important politician. The investment would benefit the politicians’ constituents, thereby improving the odds that the incumbent would get re-elected. In return, the politician could pay back the firm through favourable regulation. The idea of this investment channel is also motivated by images of incumbent politicians routinely claiming that they bring jobs and business to their communities. One way they can do this is by funneling government funds to their district. However, another way could be by persuading private firms to invest there. I test for this channel in the context of the financial services industry in the US. Specifically, I test for whether banking activity is higher in areas represented by a Congressman who also

¹A paper of less recent vintage, [Ansolabehere, de Figueiredo, and Snyder \(2001\)](#) asks in its title ‘Why is there so little money in US politics?’

sits on the House Financial Services Committee. Banking is an appealing setting to test for the hypothesized effect for a number of reasons: firstly, banking is one of the most highly regulated industries, and one in which the returns to political connection are likely to be high²; secondly, detailed geographical data is available on both the bank activity; thirdly and perhaps most importantly, identifying the politicians that are most important in the context of banking is arguably easier than for other industries. The House Committee on Financial Services is a standing committee of the US House of Representatives that oversees the entire industry, and has oversight of all financial regulators including the Federal Reserve, Treasury and the Securities and Exchange Commission.

Employing a standard difference-in-difference methodology and using changes in the composition of the Financial Services Committee as shocks to a region’s political importance, I document that firms alter lending patterns in response to a shock. When a county is newly represented by a member of the Financial Services Committee, there is no immediate change in lending but when a county loses a member of the Committee, there is a significant decline in home mortgage loan origination of the order of 3%. This asymmetry is consistent with theoretical models that imply gradual reputation-building in the market for political favours ((Kroszner and Stratmann, 1998);(Kroszner and Stratmann, 2000)). These models emphasize precisely the kind of repeated interaction that the committee system engenders.

3

Additionally, I find that treatment effects are heterogenous – the effect is larger where the relevant politician receives less direct contributions, potentially implying a substitutability between direct and indirect contributions. The effects are also larger during the period from 2008-2011, a period characterized both by potential voter discontent with economic conditions as well as heightened focus on regulation in the financial services industry.

²The Finance, Insurance and Real Estate(FIRE) industry is among the largest direct donors to politicians

³The intuition is similar to models like [Diamond \(1989\)](#). The politician can expend effort on behalf of the interest group, and choose to pool with “good types”. Repeated investment by the politician in reputation leads the interest group to revise beliefs about the type of the politician and leads to higher contributions as time goes on. However, as soon as the game ends, contributions decrease immediately.

Related Literature

In addition to the papers already mentioned, this study connects to many other strands of the literature. Papers like [Cole \(2009\)](#), [Dinc \(2005\)](#) and [Sapienza \(2004\)](#) show that activities of state-owned banks are often driven by political considerations. These papers all imply that cheap loans have the potential to be an electorally relevant consideration for voters. I differ from these papers since I focus on private sector lending.

As far as mortgage lending and direct political connections are concerned, [Igan, Mishra, and Tressel \(2011\)](#) finds that mortgage lenders that lobbied heavily were able to make riskier loans, had worse outcomes but still had a higher probability of being bailed out. Another example of the benefits that firms might enjoy from political connections comes from [Duchin and Sosyura \(2012\)](#) which finds that connected banks were more likely to get TARP funding. [Mian, Sufi, and Trebbi \(2013\)](#) study the political economy of the subprime mortgage credit expansion and find that during the boom, lenders were increasingly targeting contributions at those politicians whose constituencies had more subprime borrowers.

The papers mentioned in the previous paragraph look at direct connections whereas I look for indirect connections. A related mechanism is uncovered in [DellaVigna, Durante, Knight, and Ferrara \(2013\)](#). That paper looks at firms' advertising spends in Italy during times when Silvio Berlusconi was the Prime Minister. Mr. Berlusconi maintained ownership of one of Italy's two largest television stations while he held office. The authors find that firms were likely to spend more on Mr. Berlusconi's channel (relative to the other channel) when he was Prime Minister. The authors refer to this as 'lobbying through business proxies'. In their case, firms influence politicians by assisting them financially; through the channel I propose, the benefit is electoral. [Figure 1](#) visualizes these alternate channels in pictorial form. Perhaps the paper closest in spirit to my own is [Bertrand, Kramarz, Schoar, and Thesmar \(2008\)](#) which finds that firms run by politically connected CEOs in France open more plants and shut down less in election years, particularly in politically important areas.

The rest of the paper is organized as follows: the next section describes the institutional

features of the Financial Services Committee, Section 3 describes the empirical strategy, Section 4 covers data sources and summary statistics, Section 5 has the results and Section 6 concludes.

2 Financial Services Committee

Both branches of the US Congress, the Senate and the House of Representatives, have a large number of permanent committees populated by members of the respective chamber. The committees have, for the most part, clearly defined functions and jurisdiction. For instance, the House Committee on Financial Services has oversight of all elements of the financial services industry including banking, insurance, securities and housing⁴. The Federal Reserve, the US Treasury and the Securities and Exchange Commission are among the regulators over whom the committee has oversight. In the US legislative system, the standing committee plays the most crucial role in the drafting of new legislation. In committee, most of the proposals are vigorously debated and it is where party affiliation plays the least role. It is not surprising that some of the most far-reaching legislation in the history of US banking such as the McFadden Act, Glass-Steagall Act and Dodd-Frank Act bear the names of former Chairmen of the Committee⁵.

The standing committee system evolved during the early part of the twentieth century and as noted in [Kroszner and Stratmann \(1998\)](#), it has three defining features: the committees are permanent, they specialize in a particular set of issues with each member joining a limited number of committees and that committee assignments are stable i.e. as long as a member is reelected to the chamber, she can continue serving in the committee as long as she wishes. In fact, [Kroszner and Stratmann \(1998\)](#) argues that, in the absence of enforceable fee-for-service contracts, this structure has endogenously arisen in order to foster

⁴<http://financialservices.house.gov/about/jurisdiction.htm> lists the exact jurisdiction of the committee

⁵The Senate Banking Committee plays a similar role in the US Senate. However, since politicians in the Senate represent entire states and my focus is on more granular geographies, I do not include members of the Senate in this study

repeated interactions between members and interest groups. The paper further argues that the structure allows members to build specialization on certain issues, and could potentially lead to a reputational equilibrium in which interest groups contribute more to representatives who serve on the committee that has oversight of issues concerning the interest group in exchange for favourable service⁶. Both time series and cross-sectional data seem to validate their proposition. As an example, Figure 2 plots the pattern of Political Action Committee (PAC) contributions made by financial firms from 1993 to 2012. The variable on the y-axis is the ratio of average contributions made to members of the Financial Services Committee to those made to other members of the House of Representatives. The ratio varies between 3 and 5, clearly indicating that financial industry PACs make significantly more contributions to members that sit on the Financial Services Committee. Since these direct contributions can be thought of as investments in an incumbent’s re-election campaigns, it is plausible to assume that indirect contributions toward re-election, if they exist, would similarly be more heavily targeted at the same set of politicians i.e. the members of the committee. This assumption motivates the choice of members of the Financial Services Committee as a proxy for influential politicians with respect to the financial industry.

3 Empirical Strategy

The aim of the paper is to test the hypothesis that *ceteris paribus*, financial institutions make greater investments in geographies represented by influential politicians. The approach employed is difference-in-difference implying a specification of the form

$$\Delta Y_{ct} = \alpha_c + \beta \Delta FS_{ct} + \gamma \Delta X_{ct} + \delta_t + \varepsilon_{ct} \quad (1)$$

Here, $Y_{c,t+1}$ is a measure of county-level bank activity. I have three measures - amount of deposits and amount and number of home mortgage loan origination. Since deposit data

⁶It is important to note that potential services that can be rendered by a politician to the interest group are not limited to voting on legislation. Services could also include drafting and amending legislation, convincing colleagues as well as rallying public support through the media

comes from the Summary of Deposits which is a snapshot on June 30 of every calendar year, I use the value from year $t+1$ for these variables. Since the mortgage data is for the whole calendar year, I use the value for year t for mortgage loans.

In this empirical design, a county c is said to be treated in year t if it is represented by a member of the House Financial Services Committee in that year. Otherwise, it is part of the control. The main independent variable FS_{ct} is a dummy capturing that fact. In cases where a Congressman was member of the committee for only a fraction of the year, I code that county as 1 only if the member was on the committee for more than half the year. In cases where only a fraction of the county is represented by a committee member, I code the county as a 1 if greater than half the county (by population) is represented.

X_{ct} is a vector of county characteristics to control for time-varying changes in economic conditions, demographics and competition among financial institutions. The variables used include logged values of the number of establishments, total employment and population as well as the Herfindahl Hirschman Index (HHI) for the relevant banking activity. For tests which involve mortgage data, house price growth (at MSA level) is also included as a control.

All specifications include time fixed effects to control for nationwide shocks to banking activity. In some specifications, region specific shocks are controlled for by including region-year fixed effects which subsume the year fixed effects⁷. Since the model is estimated in first differences, unobserved county-specific heterogeneity in the level of banking activity is accounted for. This is similar to estimating the corresponding levels equation with county fixed effects. However, as noted in [Heider and Ljungqvist \(2014\)](#), the advantage of first-differencing is that it can easily account for features like repeated treatment to a county through the sample period, treatment reversal as well as allowing asymmetric effects across positive and negative treatment shocks. In order to test for the presence of such asymmetries,

⁷The regions are as defined by the US Census Bureau – Northeast, Midwest, South and West

the second equation I estimate is of the form:

$$\Delta Y_{c,t+1} = \alpha_c + \beta_1 \Delta FS_{ct}^+ + \beta_2 \Delta FS_{ct}^- + \gamma \Delta X_{ct} + \delta_{t+1} + \varepsilon_{c,t+1} \quad (2)$$

The only difference from the first equation is that the treatment variable ΔFS_{ct} has been split into positive and negative treatment shocks ΔFS_{ct}^+ and ΔFS_{ct}^- respectively. ΔFS_{ct}^+ takes the value 1 if FS_{ct} was 0 in year $t-1$ and 1 in year t , and 0 otherwise. On the other hand, ΔFS_{ct}^- takes the value 1 if FS_{ct} was 1 in year $t-1$ and 0 in year t , and 0 otherwise.

Both specifications also include county fixed effects to control for unobserved county-specific heterogeneity in the rate of change of banking activity. Since the treatment is at the congressional district level, standard errors are estimated by clustering at that level. To mitigate the effect of outliers, I winsorize all economic and financial variables at the 1% level.

4 Data and Summary Stats

This paper merges data from multiple publicly available data sources to create the final sample used in the analysis.

Political

Data on membership of the House Financial Services Committee comes from [Stewart and Woon \(2009\)](#). The data is available from the 103rd Congress to the 112th Congress(1993-2012)⁸. For each member in each Congress, there is information about the Congressional District (CD) represented by the member as well as date of assignment to the Committee and date of termination. In addition, the member's party affiliation and tenure on the committee are also reported. The data also include fields noting the stated reason for a Congressman's departure from the Committee or chamber. [Figure 3](#) illustrates the change in composition of the Financial Services Committee at the start of the 109th Congress in January 2005. It

⁸The data can be downloaded from Charles Stewart's webpage: http://web.mit.edu/17.251/www/data_page.html

can be seen that members of the committee come from districts across the country and there does not seem to be any noticeable pattern either in the location of incumbent members or incoming or outgoing members.

Data on direct political contributions to politicians are from the Center for Responsive Politics (CRP)⁹. I use the data on contributions made by Political Action Committees (PAC) to individual candidates. For every contribution, CRP codes the industry or ideology of the donor. I restrict my analysis to contributions made by donors belonging to the Financial Services industry. For each Congressman, I aggregate up all contributions during a given year. I then manually match Congressmen to the [Stewart and Woon \(2009\)](#) dataset. [Table 1](#) has summary statistics on these contributions, split by members of the committee and other representatives. The numbers confirm the pattern seen in [2](#). The mean amount given to committee members is about 4 times that given to others. They also suggest that almost all members of the committee get at least some contributions.

Since banking and economic activity is not reported at the level of CD, I disaggregate committee membership to the county level using the MABLE/Geocorr software of the Missouri Data Center¹⁰. For counties split across multiple CDs, the fraction of the county's population allocated to each CD is reported. There are different link files for different Congresses which takes care of the issue of redistricting, a process whereby boundaries of CDs are modified. [Table 1](#) provides summary stats on the treatment variables. For about 10% of county-year observations, the county is represented by a member of the Financial Services Committee in that year. The positive shock dummy takes the value 1 in 1090 out of 59677 observations (approximately 1.8%) while the negative shock one is 1 in 990 out of 59677 observations (approximately 1.7%).

⁹The data can be downloaded from the Open Secrets website: <http://www.opensecrets.org/myos/bulk.php>

¹⁰The 2000 version is available at <http://mcdc2.missouri.edu/websas/geocorr2k.html>

Banking

Data on bank branches and branch-level deposits come from the Federal Deposit Insurance Commission’s (FDIC) Summary of Deposits (SoD). The SoD is an annual survey of branches for all FDIC-insured institutions. Data is available from 1994 to 2013 and is as of June 30th of the given year. Crucially for this study, the SoD provides detailed data on the location of each branch as well as its ownership. Excluding the bank’s main office from the sample as well as restricting to national, state member and state nonmember banks, I aggregate branch counts and deposit sums up to the county level. Table 1 shows, unsurprisingly, that the distribution is heavily right-skewed. Though the median county-year has only 8 branches, the county-year at the 90th percentile has 49 and the average is about 22.

The SoD provides data only on a bank’s physical infrastructure in a county as well as the deposits held within the county. However, given rapid advances in technology and the increase in direct finance, an analysis purely of these physical investments might not give a complete picture of bank activity to assist incumbent members. For this reason, I primarily use data on bank lending by geography. Under the requirements of the Home Mortgage Disclosure Act (HMDA), regulated institutions with assets above \$30mn and an office in at least one MSA are required to report all mortgage loan applications made to them. Comprehensive Loan Application Registers (LAR) from 1981 onwards are publicly available. For this study, I focus on loans from 1993 onwards. For each loan application, there is information on the amount of loan, the county where the application was made as well as the final action taken on the application (originated/declined etc.). [Loutskina and Strahan \(2009\)](#) provides further details on the information contained in the LARs. I restrict the sample to conventional, single-family, owner-occupied applications. The amount and number of loans *originated* at the county level are obtained by aggregating up. Summary stats are shown in Table 1. Once again, the right-skewed nature of the distribution is evident. It can be seen from the HHIs that mortgage lending is less geographically concentrated than physical bank branching

To control for overall economic activity in the county, I use data from the Quarterly Census of Employment and Wages (QCEW). The QCEW provides annual data on the total number of establishments and employment in a county by industry. The County Business Patterns (CBP) provides similar data. Using either data source makes no difference to results. County population estimates come from the Census Bureau. House prices at the MSA level are from the Federal Housing Finance Agency (FHFA).

5 Results

The basic results from OLS estimation on the sample of mortgage loan originations is presented in Table 2. Panel A presents the results using the annual change in the log amount of mortgage loans originated as the dependent variable while Panel B presents the results in which the dependent variable is the annual change in the log number of loans originated. The structure of the table is identical in both panels. In describing the results, I will focus on the amount of loans. Results are very similar for the number of loans. The first 4 columns present results from the estimation of equation 1 while the next 4 focus on the estimation of equation 2. The first 4 columns indicate that when a county is hit by a shock i.e. it gains a member on the Financial Services Committee, there is a positive effect on the amount and number of home mortgage loans originated in the county. Since the dependent variable is in the form of log changes and the coefficient on ΔFS is not very large, it can be interpreted as a percentage change. The magnitude of the effect of the unconditional shock is about 1-1.5%. However, none of the coefficients are significant at any of the standard significance levels. It's only on splitting the shocks into positive and negative shocks (columns (5)-(8)) that we see a statistically significant effect; this effect is seen only for negative shocks and it is negative in magnitude. In columns (5) and (6), the magnitude is of the order of 3.3-3.5% and is significant at the 5% level. On adding controls, the magnitude is attenuated minorly. On replacing year fixed effects with region-year fixed effects to control for region-specific trends (column (8)), the measured magnitude is similar

though the precision of the estimate decreases due to the additional fixed effects. It is now significant only at the 10% level. In column (7), house price growth is added as an additional control. Since this variable is only available for certain MSAs, this reduces the sample size to almost a third. The estimated effect is slightly smaller at 2.7% but is significant at the 10% level despite the smaller sample. For positive shocks, there is no significant effect and the magnitudes are close to zero throughout.

The control variables have the expected signs – population growth and economic growth is associated with loan growth, in more competitive markets loan growth is higher, the loan to income ratio increases the amount of loans originated but not the number of loans, and house price growth is associated with an increase in loans originated.

Though the mortgage loan results are instructive and will be the main focus of this study, I supplement the basic analysis with a look at deposit flows at the county level. This is likely to be a more wholesome measure of aggregate banking activity. An expansion in deposits, controlling for local economic conditions i.e the demand for deposits, would come about through an expansion in the supply of deposits, caused presumably by an expansion in lending. As long as expansion in lending in the county as a whole is correlated with the expansion of county-level deposits, deposit flow would also provide a good proxy for increased banking activity. With that in mind, I look at deposit flows and run the same specifications as in Table 2. The results presented in Table 3 broadly confirm the insights from the home mortgage sample. The unconditional shock doesn't have any significant effect, but the negative shock does. The magnitude of the decline is of the order of 1.2-1.3%, about half that as was seen in the mortgage loan sample.

Taken together, these results suggest that financial institutions do alter lending patterns in response to shocks to a region's political importance. When a region becomes politically important, there is no immediate change but when it loses its importance, there is a decline in lending activity. This would suggest that indirect contributions in the form of loans do not start flowing immediately after a politician joins the committee but they take time to

build up. However, when the link is broken the decline is immediate. This is consistent with the hypothesis that reputations take time to build in the market for political favours.

Test for pre-trends

The key assumption to claim that the effect is causal in a difference-in-difference study like this one is the so-called “parallel trends” assumption which says conditional on the control variables, the treated and control counties did not differ systematically before the treatment, and would have continued on the same trends in the absence of the treatment. To provide some evidence that this assumption is plausible in this setting, I test for pre-trends in the data. The specification to implement this test is of the form:

$$\Delta Y_{ct} = \alpha_c + \beta_1 \Delta F S_{c,t+k}^+ + \beta_2 \Delta F S_{c,t+k}^- + \gamma \Delta X_{ct} + \delta_t + \varepsilon_{ct} \quad (3)$$

This specification is similar to the basic specification but it is forward-looking. Here, k takes the value 1 or 2. In essence, this tests whether the dependent variable was evolving differently between the treated and control counties even before the treatment occurred. This might be due to some omitted variable driving both the evolution of the dependent variable and the treatment, or some form of reverse causality or even anticipation about the coming treatment. Table 4 provides the results from the OLS estimation of the above equation using the annual change in the log of the amount of home mortgage loans as the dependent variable. To prevent contamination by concurrent shocks, observations are included only if the county did not receive a shock in either year $t+1$ or t . The results confirm that there were no discernible pre-trends in the data. All estimated coefficients are insignificant except for one negative coefficient on the positive shock one year ahead, and only in the specification where house price growth is included. For the negative shock, where most of the treatment effects are seen, there is no significant difference between treated and control counties in the 2 years before the shock hits.

Falsification Test

Cohen, Coval, and Malloy (2011) shows that powerful politicians can affect economic activity in their home states by routing federal funding to the state. This affects private sector investment, and could potentially have an impact on lending as well. Though their focus is on shocks to very senior politicians, namely committee chairmen in the Senate and House, the findings suggest that federal politicians do have the power to impact economic activity. An alternate explanation to the story I suggest could be that being on the Financial Services Committee is correlated with other kinds of political clout, and it is this power which is driving the changes in lending that are observed. Firstly, such an explanation cannot rationalize the asymmetric nature of the response. Even if it is assumed that this clout takes time to build, it is inconsistent with the ranking in Edwards and Stewart (2006), which puts the Financial Services Committee as only the 8th most valuable committee in the House of Representatives in the period from 1995 to 2005. In their ranking, the Ways and Means committee was the most valuable committee during that time. This committee deals with all taxation-related matters. As a falsification test, I decide to use shocks to the Ways and Means Committee to check whether the patterns I find exist for other definitions of powerful politicians as well. Table 5 provides the results from this test. Reassuringly, there seems to be absolutely no effect of a shock to the Ways and Means Committee on lending. All relevant coefficients are small in magnitude and insignificant. In unreported tests, I also do the falsification using shocks to committee chairmen and ranking members and get similar results to the ones in Table 5. These results suggest that the change observed is not just a function of abstract political influence but is closely related to being a member of the Financial Services Committee.

Contributions and Seniority

Having established the base treatment effect, its asymmetric nature and having done some tests to mitigate endogeneity concerns, I now turn to examine whether the documented

treatment effect is heterogeneous. I start by looking at whether the treatment effect differs by politician characteristics. Since these characteristics only correspond to those observations where the county was represented by a member of the committee in the previous year, my original sample shrinks to about 10% of the original. Firstly, I look at rank in the committee. All members in the committee have a rank by party affiliation. These ranks correspond closely to how long they have served on the committee. I split the sample into three subsamples based on which rank tercile a member of the committee was in during the previous year. The reputation-building hypothesis would imply that the treatment effect should be strongest for the mid-ranked members. For the low-ranked members, reputation might not have built enough while for the high-ranked members, the effect might have started dissipating since these members are generally older and nearing retirement, bringing the end of the relationship nearer. The results are shown in the first three columns of Table 6. The magnitude of the effect is smallest, and also statistically insignificant, for the high-ranked members. Puzzlingly, the effect is only significant, at the 10% level for the low-ranked members. The magnitude is similar (around 5.5%) for the mid-ranked members but is statistically insignificant.

The next characteristic I look at is how much the member receives as direct campaign contributions from the financial services industry. I split the members by whether they receive above the median or below the median of contributions made to members of the committee during the year. The direction of expected heterogeneity is not clear a priori. It could be that the indirect contributions act as a complement to the direct contributions, and firms only help those politicians they are close to. It is also possible that they could be a substitute – perhaps in some regions, political advertising and direct campaigning (which would be what direct contributions fund) might be less effective than allowing people to get loans more easily. Perhaps some politicians prefer not to be directly linked to corporations but rather prefer indirect contributions flowing to their constituents. The results in columns (4) and (5) of Table 6 lend credence to the substitution hypothesis. The magnitude is larger

and significant, at the 5% level, where the politician received lower direct contributions. The magnitude is smaller and statistically insignificant for those who received high direct contributions the previous year.

Another characteristic I look at, but do not report results for, is party affiliation. I find that the effects are similar for both major parties, and do not differ whether the member lost is a Democrat or a Republican.

Crisis and Heightened Regulation

The financial crisis period and the time just after it provide an excellent setting to test the strength of the main channel hypothesized in this study. Firstly, there was a deep recession leading to major economic hardship and potentially deep discontent against elected representatives. Secondly, the clamour for heightened regulation against the financial sector was strong, ultimately leading to the passage of the wide-ranging Dodd-Frank Act of 2010. In such an environment, the gains to indirect contributions would be higher for both sides. Politicians would benefit since easier mortgage loans might mitigate voter discontent while at the same time, returns to financial firms would be larger from influencing such important regulation. I investigate lending patterns in the 2008-2011 period in Table 7. Comparing the results from the 2008-11 subsample to the entire sample provides confirmation for the hypothesis. The effects are both larger in magnitude and statistically significant (except with region-year fixed effects).

Causes of negative shocks

The committee data also includes some information on why the member left the committee. I use this information and classify all the negative shocks into five categories: (1) those caused by retirement or death; (2) redistricting; (3) members transferring to other committees; (4) members not getting re-elected; (5) getting elected to a higher office. The relative frequencies of these causes is tabulated in Panel A of 8. It can be seen that getting transferred is the most common cause of a shock.

In Panel B of 8, I modify the base specification of 2 by replacing the ΔFS^- variable with 5 variables corresponding to the five different causes of negative shocks. On doing this, it appears that most of the effect comes from either when a politician loses an election or retires. The large effect after loss could potentially be due to an increase in lending just before the election in order to help the incumbent. This would be consistent with the hypothesized channel.

6 Conclusion

This paper shows that financial firms alter their lending patterns in response to shocks to a region's political importance. Counties represented by a member of the Financial Services Committee see a decline of about 3% when a negative shock to committee membership hits. There is no immediate change when a county starts being represented by a member. These results suggest that residents of politically important regions derive rents owing to the identity of the political representative. The rents might be higher during times of economic hardship. Unfortunately, since there is no information available on the performance of the extra loans, it is not possible to quantify the economic magnitude of the distortion created.

References

- Akey, P., 2013, Valuing changes in political networks: Evidence from campaign contributions to close congressional elections, *Working Paper* .
- Ansolabehere, S., J.M. de Figueiredo, and J.M Snyder, 2001, Why is there so little money in u.s. politics??. *Journal of Economic Perspectives* 17, 105–130.
- Bertrand, M., F. Kramarz, A. Schoar, and D. Thesmar, 2008, Politicians, firms and the political business cycle: Evidence from france, *Working Paper* .
- Cohen, L., J. Coval, and C.J. Malloy, 2011, Do powerful politicians cause corporate downsizing?, *Journal of Political Economy* 116, 1015–1060.
- Cole, S.A., 2009, Fixing market failures or fixing elections? elections, banks and agricultural lending in india, *American Economic Journal: Applied Economics* 1, 219–250.
- DellaVigna, S., R. Durante, B. Knight, and E. La Ferrara, 2013, Market-based lobbying: Evidence from advertising spending in italy, *Working Paper* .
- Diamond, D.W., 1989, Reputation acquisition in debt markets, *Journal of Political Economy* 97, 828–862.
- Dinc, S., 2005, Politicians and banks: political influences on government-owned banks in emerging countries, *Journal of Financial Economics* 77, 453–479.
- Do, Q., Y. T. Lee, and B. D. Nguyen, 2013, Political connections and firm value: Evidence from the regression discontinuity design of close gubernatorial elections, *Working Paper* .
- Duchin, R., and D. Sosyura, 2012, The politics of government investment, *Journal of Financial Economics* 106, 24–48.
- Edwards, K., and C. Stewart, 2006, The value of committee assignments in congress since 1994, *Working Paper* .

- Heider, F., and A. Ljungqvist, 2014, As certain as debt and taxes: Estimating the tax sensitivity of leverage from state tax changes, *Working Paper* .
- Igan, D., and P. Mishra, 2014, Three's company: Wall street, capitol hill, and k street, *Journal of Law and Economics* forthcoming.
- Igan, D., P. Mishra, and T. Tressel, 2011, A fistful of dollars: Lobbying and the financial crisis, *NBER Macroeconomics Annual* 26, 195–230.
- Khwaja, A.I., and A. Mian, 2011, Rent seeking and corruption in financial markets, *Annual Review of Economics* 3, 579–600.
- Kroszner, R.S., and T. Stratmann, 1998, Interest-group competition and the organization of congress: Theory and evidence from financial services' political action committees, *American Economic Review* 88, 1163–1187.
- Kroszner, R.S., and T. Stratmann, 2000, Does political ambiguity pay? : Corporate campaign contributions and the rewards to legislator reputation, *Working Paper* .
- Loutskina, E., and P.E. Strahan, 2009, Securitization and the declining impact of bank finance on loan supply: Evidence from mortgage originations, *Journal of Finance* 64, 861–889.
- Mian, A., A. Sufi, and F. Trebbi, 2013, The political economy of the subprime mortgage credit expansion, *Quarterly Journal of Political Science* 8, 373–408.
- Sapienza, P., 2004, The effects of government ownership on bank lending, *Journal of Financial Economics* 72, 357–384.
- Stewart, C., and J. Woon, 2009, Congressional committee assignments, 103rd to 110th congresses, 1993-2007.

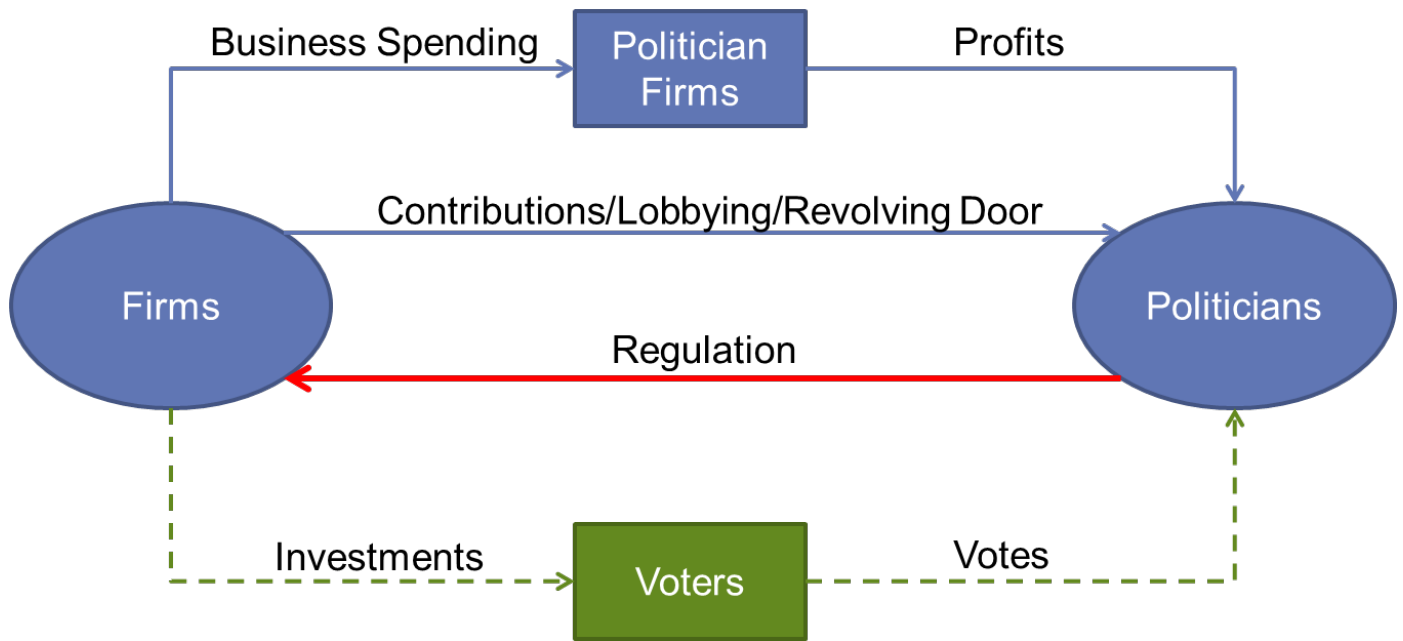


Figure 1: Channels to buy political influence

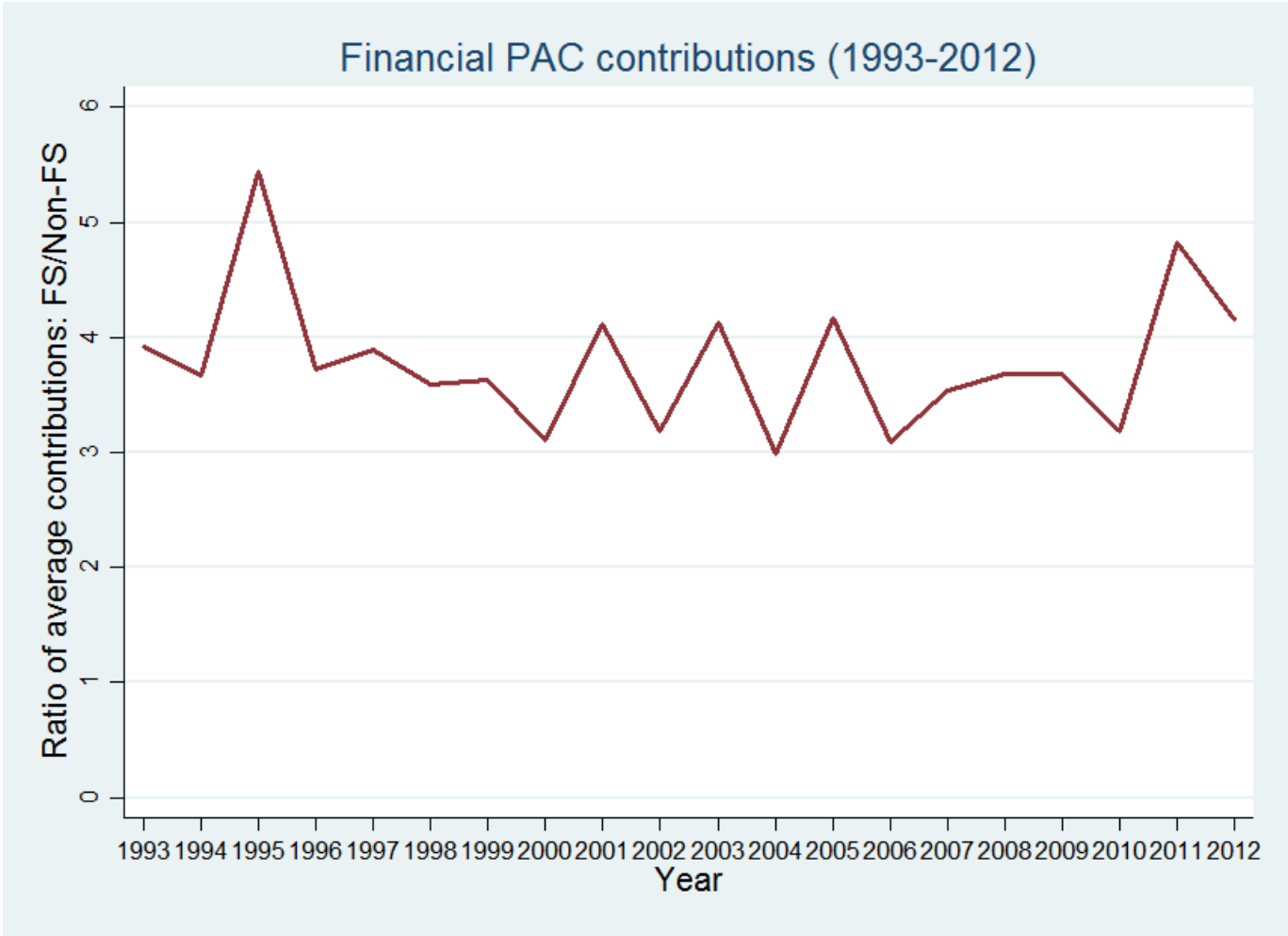


Figure 2: Comparison of Financial PAC contributions

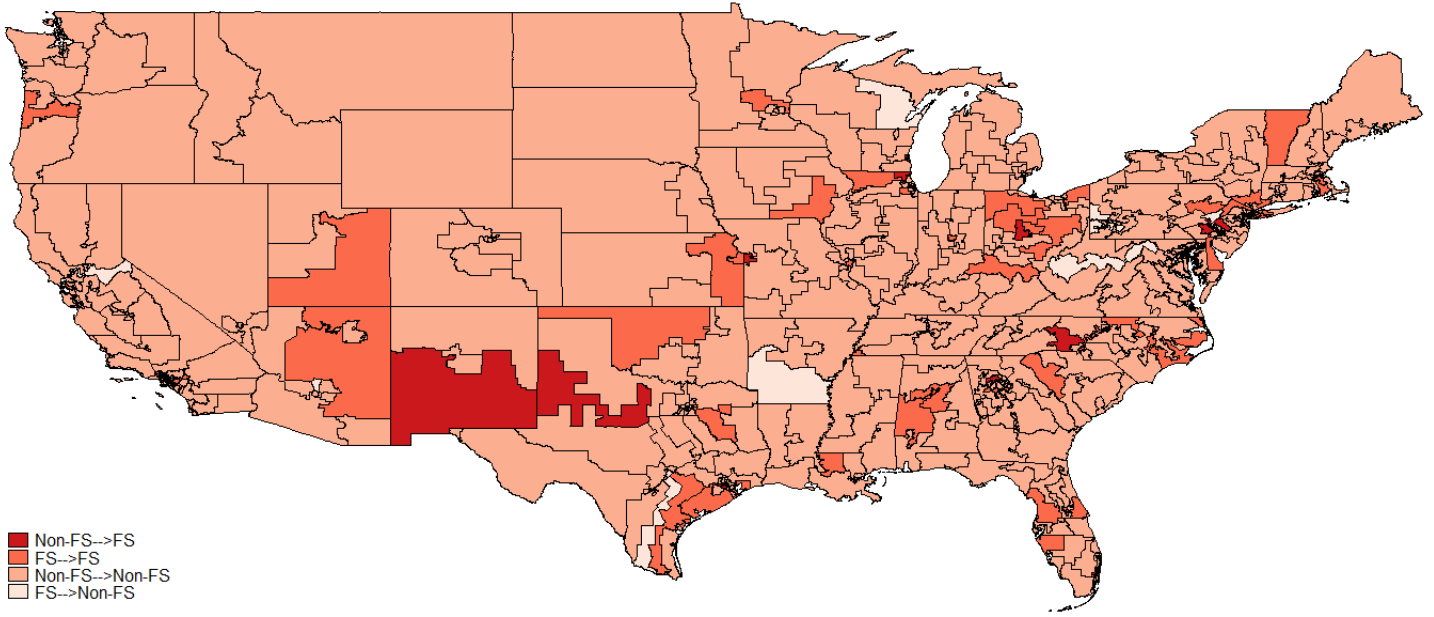


Figure 3: Change in FS Committee Membership at start of 109th Congress

Table 1: **Summary Statistics**

	N	Mean	SD	P10	P50	P90
<i>Financial Services Committee</i>						
Member	62828	0.10	0.31	0	0	1
ΔFS^+	59677	0.02	0.13	0	0	0
ΔFS^-	59677	0.02	0.13	0	0	0
<i>HMDA Data</i>						
Amount originated ('000)	64444	325726.77	1935080.47	715	24150	506318
Number of loans originated	64444	2151.42	8789.90	15	301	4342
Proportion of minority applicants	64444	0.28	0.17	.09	.25	.50
Loan-to-Income Ratio	64444	1.65	1.19	1.05	1.55	2.27
HHI (mortgages)	63874	0.16	0.20	.04	.09	.36
<i>Summary of Deposits Data</i>						
Deposits ('000)	60294	1119.84	7076.83	22.14	174.20	1649.06
Number of Branches	60294	22.62	54.89	2	8	49
HHI (branches)	60294	0.34	0.25	.13	.27	.63
<i>Controls</i>						
Population	62846	91727.46	297098.45	5225	24856	181171
No. of establishments	63386	2533.66	9366.32	145	607	4820
Employment	63386	39595.89	140593.74	1386	8055.5	75144
House Price Growth (%)	21465	3.09	5.35	-2.70	3.39	8.27
<i>Financial PAC Contributions</i>						
All Representatives	8871	10998.12	15277.71	0	6000	28500
Non-FS Committee	7609	7886.65	10015.82	0	5000	18500
FS Committee	1262	29758.20	25018.81	2500	24776.5	62300

Note: All variables are at county-year or candidate-year level

Table 2: **Home Mortgage Loans**

The specification used in this table is as in Equations 1 and 2. The dependent variable in Panel A (Panel B) is the change in the log of the amount (number) of home mortgage loans originated in county c in year t . In columns (1)-(4), the variable of interest is ΔFS_{ct} which takes the value 1 if the county received a positive membership shock, -1 if the county received a negative membership shock and 0 otherwise. In columns (5)-(8), this variable is split into ΔFS_{ct}^+ and ΔFS_{ct}^- which take the value 1 if hit by a positive and negative shock respectively. Control variables include changes in the log of county-level establishments, employment, population as well as changes in the HHI of mortgage lending in the county, proportion of minority applicants and the loan-to-income ratio of loans. MSA-level house price growth is included in columns (3) and (7). County fixed effects are in all specifications. Columns(4) and (8) have region-year fixed effects while all other columns have year fixed effects. The sample period is 1993 to 2012. Standard errors clustered at congressional district level are reported in brackets. Level of Significance: * 0.10, ** 0.05, *** 0.01

	$\Delta \text{Log (Loan Amount)}$							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ΔFS	0.018 (0.013)	0.016 (0.011)	0.011 (0.009)	0.013 (0.010)				
ΔFS^+					-0.002 (0.020)	-0.003 (0.018)	-0.004 (0.012)	-0.003 (0.015)
ΔFS^-					-0.039** (0.017)	-0.036** (0.015)	-0.027* (0.015)	-0.031* (0.016)
$\Delta \text{Log (Establishments)}$		0.083 (0.080)	-0.241*** (0.080)	-0.012 (0.084)		0.083 (0.080)	-0.239*** (0.080)	-0.012 (0.084)
$\Delta \text{Log (Employment)}$		0.225*** (0.051)	0.156* (0.083)	0.157*** (0.052)		0.224*** (0.051)	0.154* (0.083)	0.157*** (0.052)
$\Delta \text{Log (Population)}$		1.876*** (0.245)	2.677*** (0.286)	1.782*** (0.241)		1.871*** (0.246)	2.674*** (0.286)	1.777*** (0.242)
ΔHHI		-0.689*** (0.066)	-0.885*** (0.138)	-0.686*** (0.064)		-0.689*** (0.066)	-0.885*** (0.138)	-0.686*** (0.064)
$\Delta \text{Loan to Income}$		0.283*** (0.025)	0.193*** (0.029)	0.286*** (0.025)		0.283*** (0.025)	0.193*** (0.029)	0.286*** (0.025)
$\Delta \text{Minority proportion}$		-0.940*** (0.058)	-0.961*** (0.077)	-0.957*** (0.056)		-0.940*** (0.058)	-0.961*** (0.076)	-0.957*** (0.056)
House Price Growth			1.574*** (0.071)				1.572*** (0.071)	
Constant	0.351*** (0.018)	-0.027 (0.020)	-0.231*** (0.022)	0.058*** (0.019)	0.352*** (0.018)	-0.027 (0.020)	-0.231*** (0.022)	0.058*** (0.019)
Year FE	Yes	Yes	Yes	No	Yes	Yes	Yes	No
County FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region-Year FE	No	No	No	Yes	No	No	No	Yes
Adj. R^2	0.445	0.496	0.669	0.513	0.445	0.496	0.669	0.513
Observations	59215	59156	20400	59156	59215	59156	20400	59156

Panel B

	Δ Log (Number of Loans)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Δ FS	0.016 (0.011)	0.013 (0.010)	0.011 (0.009)	0.011 (0.010)				
ΔFS^+					-0.001 (0.016)	-0.004 (0.015)	0.000 (0.012)	-0.005 (0.014)
ΔFS^-					-0.035** (0.015)	-0.033** (0.014)	-0.023* (0.014)	-0.028* (0.016)
Δ Log (Establishments)		0.066 (0.069)	-0.179** (0.073)	-0.023 (0.069)		0.067 (0.070)	-0.178** (0.073)	-0.022 (0.069)
Δ Log (Employment)		0.141*** (0.046)	0.099 (0.070)	0.082* (0.046)		0.139*** (0.046)	0.098 (0.070)	0.081* (0.046)
Δ Log (Population)		1.374*** (0.220)	2.287*** (0.279)	1.313*** (0.214)		1.369*** (0.220)	2.285*** (0.279)	1.308*** (0.215)
Δ HHI		-0.612*** (0.068)	-0.840*** (0.099)	-0.607*** (0.065)		-0.612*** (0.068)	-0.840*** (0.099)	-0.607*** (0.065)
Δ Loan to Income		-0.025 (0.019)	-0.063** (0.027)	-0.024 (0.019)		-0.025 (0.019)	-0.063** (0.027)	-0.024 (0.019)
Δ Minority proportion		-0.867*** (0.058)	-0.885*** (0.082)	-0.891*** (0.054)		-0.867*** (0.058)	-0.886*** (0.081)	-0.891*** (0.054)
House Price Growth			1.145*** (0.066)				1.143*** (0.066)	
Constant	0.291*** (0.016)	0.039** (0.018)	-0.155*** (0.020)	0.093*** (0.017)	0.292*** (0.016)	0.039** (0.018)	-0.155*** (0.020)	0.094*** (0.017)
Year FE	Yes	Yes	Yes	No	Yes	Yes	Yes	No
County FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region-Year FE	No	No	No	Yes	No	No	No	Yes
Adj. R^2	0.452	0.488	0.643	0.509	0.453	0.488	0.643	0.509
Observations	59215	59156	20400	59156	59215	59156	20400	59156

Table 3: **Deposit Flows**

The specification used in this table is as in Equations 1 and 2. The dependent variable is the change in the log of total deposits in county c in year $t+1$. In columns (1)-(3), the variable of interest is ΔFS_{ct} which takes the value 1 if the county received a positive membership shock, -1 if the county received a negative membership shock and 0 otherwise. In columns (4)-(6), this variable is split into ΔFS_{ct}^+ and ΔFS_{ct}^- which take the value 1 if hit by a positive and negative shock respectively. Control variables include changes in the log of county-level establishments, employment, population as well as changes in the HHI of branches in the county. County fixed effects are included in all specifications. Columns(6) and (6) have region-year fixed effects while all other columns have year fixed effects. The sample period is from 1994 to 2013. Standard errors clustered at congressional district level are reported in brackets. Level of Significance: * 0.10, ** 0.05, *** 0.01

	$\Delta \text{Log (Deposits)}$					
	(1)	(2)	(3)	(4)	(5)	(6)
ΔFS	0.005 (0.004)	0.005 (0.004)	0.004 (0.004)			
ΔFS^+				-0.003 (0.006)	-0.002 (0.006)	-0.002 (0.006)
ΔFS^-				-0.013** (0.006)	-0.013** (0.006)	-0.012* (0.006)
$\Delta \text{Log (Establishments)}$		0.123*** (0.032)	0.117*** (0.034)		0.123*** (0.033)	0.117*** (0.034)
$\Delta \text{Log (Employment)}$		0.071*** (0.024)	0.063*** (0.024)		0.071*** (0.024)	0.063*** (0.024)
$\Delta \text{Log (Population)}$		0.467*** (0.083)	0.454*** (0.081)		0.465*** (0.083)	0.452*** (0.082)
ΔHHI		-0.052** (0.020)	-0.051** (0.020)		-0.053** (0.020)	-0.051** (0.020)
Constant	0.113*** (0.006)	0.083*** (0.006)	0.101*** (0.005)	0.113*** (0.006)	0.083*** (0.006)	0.102*** (0.005)
Year FE	Yes	Yes	No	Yes	Yes	No
County FE	Yes	Yes	Yes	Yes	Yes	Yes
Region-Year FE	No	No	Yes	No	No	Yes
Adj. R^2	0.025	0.025	0.033	0.025	0.025	0.033
Observations	56812	53780	53780	56812	53780	53780

Table 4: **Home Mortgage Loans: Test for Pre-Trends**

This table tests for pre-trends in lending outcomes. The specification used is that of equation 3. The dependent variable is the change in the log of the amount of home mortgage loans originated in county c in year t . The variables of interest are dummies $\Delta FS_{c,t+k}^+$ and $\Delta FS_{c,t+k}^-$ which take the value 1 if the county is hit, in year $t+k$, by a positive and negative shock respectively. $k = 1$ in columns (1)-(4) and $k = 2$ in columns (5)-(8). Observations are included only if the county did not receive a shock in either year $t+1$ or t . Control variables include changes in the log of county-level establishments, employment, population as well as changes in the HHI of mortgage lending in the county, proportion of minority applicants and the loan-to-income ratio of loans. MSA-level house price growth is included in the specifications in columns (3) and (7). County fixed effects are included in all specifications. Columns(4) and (8) have region-year fixed effects while all other columns have year fixed effects. The sample period is from 1993 to 2012. Standard errors clustered at congressional district level are reported in brackets. Level of Significance: * 0.10, ** 0.05, *** 0.01

	$\Delta \text{Log (Loan Amount)}$							
$\Delta FS^+(t = +1)$	-0.008 (0.017)	-0.013 (0.021)	-0.026** (0.012)	-0.025 (0.016)				
$\Delta FS^-(t = +1)$	-0.018 (0.021)	-0.017 (0.018)	0.000 (0.013)	-0.010 (0.014)				
$\Delta FS^+(t = +2)$					0.006 (0.020)	0.001 (0.020)	0.015 (0.015)	-0.010 (0.015)
$\Delta FS^-(t = +2)$					-0.018 (0.018)	-0.009 (0.015)	-0.008 (0.016)	0.003 (0.013)
Controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	No	Yes	Yes	Yes	No
County FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region-Year FE	No	No	No	Yes	No	No	No	Yes
Adj. R^2	0.549	0.585	0.774	0.602	0.558	0.593	0.777	0.610
Observations	46461	46419	15892	46419	43507	43472	14887	43472

Table 5: **Home Mortgage Loans: Falsification using Ways and Means Committee**

The specifications in this table are the same as those in Table 2 Panel A. The only difference is that the shocks are to the membership of the House Ways and Means Committee rather than the Financial Services Committee. They are denoted by *WM* rather than *FS* but are defined equivalently. The sample period is from 1993 to 2012. Standard errors clustered at congressional district level are reported in brackets. Level of Significance: * 0.10, ** 0.05, *** 0.01

	$\Delta \text{Log (Loan Amount)}$							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$\Delta \text{ WM}$	-0.000 (0.012)	-0.003 (0.012)	-0.004 (0.013)	0.009 (0.012)				
$\Delta \text{ WM}^+$					0.004 (0.016)	0.004 (0.016)	-0.005 (0.015)	0.009 (0.018)
$\Delta \text{ WM}^-$					0.005 (0.024)	0.011 (0.023)	0.003 (0.022)	-0.008 (0.022)
$\Delta \text{ Log (Establishments)}$		0.113 (0.082)	-0.241*** (0.080)	0.023 (0.085)		0.113 (0.082)	-0.241*** (0.080)	0.023 (0.085)
$\Delta \text{ Log (Employment)}$		0.210*** (0.052)	0.155* (0.082)	0.137*** (0.053)		0.210*** (0.052)	0.155* (0.082)	0.137*** (0.053)
$\Delta \text{ Log (Population)}$		2.135*** (0.248)	2.770*** (0.301)	2.022*** (0.242)		2.136*** (0.247)	2.770*** (0.301)	2.022*** (0.242)
$\Delta \text{ HHI}$		-0.686*** (0.068)	-0.895*** (0.139)	-0.679*** (0.067)		-0.686*** (0.068)	-0.895*** (0.139)	-0.679*** (0.067)
House Price Growth			1.693*** (0.075)				1.693*** (0.075)	
Constant	0.351*** (0.018)	0.254*** (0.019)	-0.248*** (0.022)	0.106*** (0.020)	0.350*** (0.018)	0.253*** (0.019)	-0.248*** (0.022)	0.106*** (0.020)
Year FE	Yes	Yes	Yes	No	Yes	Yes	Yes	No
County FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region-Year FE	No	No	No	Yes	No	No	No	Yes
Adj. R^2	0.445	0.468	0.655	0.485	0.445	0.468	0.655	0.485
Observations	59215	59156	20400	59156	59215	59156	20400	59156

Table 6: **Home Mortgage Loans and Politician Characteristics**

The sample consists of only those county-years where the politician was on the Financial Services Committee in the previous year. The sub-samples in each of the specifications are formed based on the relevant politician characteristic in year $t-1$. *Low Rank* refers to a politician in the bottom tercile of committee rank, *Mid Rank* refers to those in the second tercile while *High Rank* refers to the rest. The *Low Contribution* sub-sample includes politicians who received less than the median amount of financial PAC contributions made to committee members. The *High Contribution* sub-sample includes the rest. The dependent variable is the change in the log amount of mortgage loans originated. The independent variable of interest ΔFS_{ct}^- is a dummy taking the value 1 if the county is no longer represented by a committee member in year t , and 0 otherwise. Controls are as in column (6) of Table 2. All specifications include county and year fixed effects. The sample period is from 1993 to 2012. Standard errors clustered at congressional district level are reported in brackets. Level of Significance: * 0.10, ** 0.05, *** 0.01

	$\Delta \text{Log (Loan Amount)}$				
	Low Rank	Mid Rank	High Rank	Low Contribution	High Contribution
ΔFS^-	-0.056* (0.033)	-0.055 (0.040)	-0.016 (0.048)	-0.061** (0.030)	-0.016 (0.032)
Controls	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
County FE	Yes	Yes	Yes	Yes	Yes
Region-Year FE	No	No	No	No	No
Adj. R^2	0.550	0.563	0.480	0.532	0.495
Observations	2452	1704	2039	2841	2894

Table 7: **Home Mortgage Loans: Crisis and Post-Crisis period**

The specification used in this table is as in Equation 2. The dependent variable is the change in the log of the amount of home mortgage loans originated in county c in year t . In the first three columns, the entire sample period from 1993-2012 is included while in the next three, the sample is only from 2008-2011. The variables of interest are ΔFS_{ct}^+ and ΔFS_{ct}^- which take the value 1 if the county is hit by a positive and negative membership shock respectively. Control variables include changes in the log of county-level establishments, employment, population as well as changes in the HHI of mortgage lending in the county, proportion of minority applicants and the loan-to-income ratio of loans. County fixed effects are in all specifications. Columns(3) and (6) have region-year fixed effects while all other columns have year fixed effects. Standard errors clustered at congressional district level are reported in brackets. Level of Significance: * 0.10, ** 0.05, *** 0.01

	$\Delta \text{Log (Loan Amount)}$					
	1993-2012			2008-2011		
ΔFS^+	-0.002 (0.020)	-0.003 (0.018)	-0.003 (0.015)	0.006 (0.045)	0.004 (0.043)	-0.003 (0.031)
ΔFS^-	-0.039** (0.017)	-0.036** (0.015)	-0.031* (0.016)	-0.081*** (0.027)	-0.074** (0.029)	-0.053 (0.033)
Controls	No	Yes	Yes	No	Yes	Yes
Year FE	Yes	Yes	No	Yes	Yes	No
County FE	Yes	Yes	Yes	Yes	Yes	Yes
Region-Year FE	No	No	Yes	No	No	Yes
Adj. R^2	0.445	0.496	0.513	0.331	0.372	0.398
Observations	59215	59156	59156	12490	12485	12485

Table 8: **Home Mortgage Loans and Causes of Negative Shocks**

Panel A tabulates the causes of the 990 negative shocks. The specification used in Panel B is as in Equation 2. The dependent variable is the change in the log of the amount of home mortgage loans originated in county c in year t . There are 5 variables completely covering all negative shocks by the cause of the shock. Control variables include changes in the log of county-level establishments, employment, population as well as changes in the HHI of mortgage lending in the county, proportion of minority applicants and the loan-to-income ratio of loans. MSA-level house price growth is included in column (3). County fixed effects are in all specifications. Column (4) has region-year fixed effects while all other columns have year fixed effects. The sample period is 1993 to 2012. Standard errors clustered at congressional district level are reported in brackets. Level of Significance: * 0.10, ** 0.05, *** 0.01

Panel A : Tabulation of causes of negative shocks

Cause	N
Retirement/Death	183
Redistricting	86
Transfer	415
Lost election	262
Higher office	44
Total	990

Panel B : Regression results

	$\Delta \text{Log (Amount of Loans)}$			
ΔFS^+	-0.002 (0.020)	-0.003 (0.018)	-0.006 (0.011)	-0.003 (0.015)
$\Delta FS^- \times Retire$	-0.049 (0.048)	-0.050 (0.044)	-0.051** (0.023)	-0.055 (0.046)
$\Delta FS^- \times Redist$	0.035 (0.032)	0.028 (0.036)	-0.031 (0.023)	0.023 (0.031)
$\Delta FS^- \times Transfer$	-0.016 (0.021)	-0.021 (0.018)	0.003 (0.023)	-0.013 (0.019)
$\Delta FS^- \times Lost$	-0.080*** (0.029)	-0.061** (0.028)	-0.038** (0.018)	-0.057* (0.033)
$\Delta FS^- \times HigherOffice$	-0.114** (0.054)	-0.105*** (0.040)	-0.062 (0.094)	-0.060 (0.049)
Controls	No	Yes	Yes	Yes
Year FE	Yes	Yes	No	No
County FE	Yes	Yes	Yes	Yes
Region-Year FE	No	No	Yes	Yes
Adj. R^2	0.446	0.496	0.696	0.513
Observations	59215	59156	20400	59156