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Is There a Credit Constituency? Inequality, Bank Credit and Voting in Advanced Economies

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Abstract

To what extent do voters punish incumbents for lack of bank credit? While scholars have increasingly found evidence in support of political credit cycles — incumbents manipulating bank credit prime ahead of elections, we know relatively little about whether voters care enough to punish incumbents for lack of credit. Leveraging disaggregated credit data by type of borrower (household vs firms) and further by sector (household mortgage vs non-mortgage credit), this paper investigates variations in the credit constituency hypothesis. Using private bank credit data in 37 OECD economies from 1990 to 2016, we test whether: 1) there is a positive relationship between bank credit and the vote share of the incumbent party from one election to another, 2) the effects of bank credit on the vote share of the incumbent party depends on the type of borrower (households vs firms). While aggregate credit growth does not have a statistically significant coefficient with respect to incumbent support, disaggregated bank credit data reveal that household credit—especially consumer credit—shows a significant correlation with voting patterns. Surprisingly, mortgage credit does not exhibit the same degree of electoral salience

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1. Introduction

In recent years, interest in the political economy of debt and income inequality has grown. One notable proposition is that politicians are increasingly addressing economic inequality by easing access to bank credit rather than relying on traditional fiscal redistribution. As first popularized by Rajan (2011), scholars contend that politicians have opted to mitigate economic inequality by facilitating bank credit access for their constituents instead of employing conventional redistribution methods such as taxation, government spending, and regulation. This hypothesis gained traction in the aftermath of the 2008 Great Recession, during which a significant increase in household debt was identified as a key factor contributing to the financial crisis that preceded it.

Credit provides significant advantages to many voters, such as enabling smoother consumption and boosting wealth. As a result, easing credit restrictions for higher-risk borrowers becomes a politically appealing strategy to meet public demands, especially from households that are experiencing the middle-class squeeze. Research showed that ahead of elections (e.g.,Dinc 2005, Kern and Amri 2021), credit tends to increase beyond what is considered normal (i.e., based on fundamentals), and certain credit policies become less restrictive (Muller 2023, Cever and Yucel 2022). However, if such measures lead to excessive credit expansion, it can create a misleading sense of improved living standards while compromising long-term financial stability and heightening economic risks (Lepers 2023). Excessive debt poses serious consequences, often resulting in defaults and financial crises. Lepers (2023) found that incumbent governments often increase credit (to households rather than firms) in order to increase their popularity and such credit manipulations increase the likelihood of experiencing a bad credit boom. Bircan and Saka (2021) estimated that when national leaders in Turkey directed lending toward regions with supportive mayors and away from opposition areas, total factor productivity dropped by 25% in the long run, while economic activities fell in the “credit-loosing” regions in the short run.

Just like any type of political business cycle, this political credit cycles theory rests on the assumption that voters care enough about bank credit and are willing to punish incumbents for lack of credit. However, with the exception of the United States (Antoniades and Calomiris 2020) and Hungary during financial crises (Gyongyosi and Verner 2019), there is limited direct evidence that bank credit is part of the economic voting function. Antoniades and Calomiris found an asymmetry of effects. While voters seem to punish incumbent parties for lack of credit, an abundance of credit does not lead to political advantage for either the incumbent or the opposition in the U.S. From 2000 and 2004, “there is no evidence that counties with a relatively high credit expansion voted in favor of either the Democratic or Republican presidential candidates.” (Antoniades and Calomiris 2020, p.2).

Another limitation of prior studies is lack of attention given to the variety of bank credit based on the recipients. Financial economists have found not all types of excessive credit growth led to financial crises. Similarly, not all types of credit are salient in the eyes of voters. Growth in mortgage credit has been particularly associated with more damaging post-crisis real outcomes (Bezemer and Zhang 2019). At the same time, political economists have also found it is interventions in household mortgage credit that are likely to be most palpable to voters and thus bear electoral consequences (Lepers 2023). A recent finding based on Scandinavian countries supports this (Ansell et al. 2022).

In light of the above, the first contribution of this paper is to widen the empirical literature on economic voting to encompass bank credit using a large N study of OECD economies, encompassing crisis and non-crisis periods. Using private bank credit data in 34 OECD economies from 1990 to 2016 and controlling for political and macroeconomic variables that have been commonly identified to matter for economic voting (economic growth, inflation and unemployment rate), this paper tests whether there is a positive and significant relationship between bank credit and the vote share of the incumbent party from one election to another, in national legislative elections. While studies suggest that politicians often intervene in bank credit to appease voters concerned about income inequality, the electoral effectiveness of such strategies remains largely unexplored. We focus on OECD economies as arguably this strategy would be more effective in countries with more well-developed housing and consumer credit policies. We also test whether income inequality levels combined with the changes in income inequality affect the vote share of the incumbent party.

By examining disaggregated credit data by type of borrower (household vs firms) and further by household sector (household mortgage vs household consumer or non-mortgage credit), this paper investigates variations in the ‘credit constituency’ hypothesis. It would follow those strategies of mobilizing votes via easy access to credit would be more effective for households than for firms, since household credit is more likely to lead to misallocation and feed into a speculative boom. However, it is still unclear whether household mortgage credit has more notable electoral effect compared to household non-mortgage credit (credit card, auto loans etc.). We think the answer would depend among others on the homeownership rate in the particular country.

Our preliminary findings suggest that not all bank credit are created equal. Aggregate credit growth does not have a statistically significant coefficient with respect to incumbent support. However, disaggregated bank credit data reveal that household credit—especially consumer credit—shows a significant correlation with voting patterns. Surprisingly, mortgage credit does not exhibit the same degree of electoral salience, suggesting that voters may prioritize short-term credit access for immediate consumption over credit linked to long-term investments like homeownership. It is essential to note that these findings are preliminary and do not imply a causal relationship; rather, they underscore correlation patterns that warrant further exploration.

The remainder of this paper is organized in the following way. Section two overviews the relevant literature and formulates our hypothesis. Section 3 discusses the empirical methods of investigation and reports the preliminary results. A summary and conclusion will be given in the last section.

2. Survey of Relevant Literature and Hypotheses Tested

2.1 Bank credit, elections and income inequality

The idea that politicians might seek to boost economic performance to gain an electoral edge has captivated political economy researchers for decades (e.g., Nordhaus 1975, Tufte 1978). While initial studies focused on fiscal and monetary policies ("political business cycles"), recent research has expanded to include other potential tools, such as bank credit ("political credit cycles"). Kern and Amri (2021) discussed the various benefits to incumbents for using fiscal and credit policy instruments to boost lending for electoral gains. Measures such as mortgage tax breaks, interest rate subsidies, and debt forgiveness programs allow households to free up more of current incomes to be dedicated to spending. For corporations, preferential access to loans and interest rate subsidy can boost profitability. The relative low cost of implementing these credit policies (most of them involve contingencies) suggest that credit programs "yield big results for low costs" (Quinn 2019,

p. 11). [2] Relatedly, Lepers (2023) argues that incumbents may also be motivated to loosen access to credit in order to improve their popularity.

The mechanisms to boost bank credit broadly fall under two categories: public credit and private credit channels. In the former, governments borrow from state-owned banks and then provide the funds to favored voters themselves. An example is the intensification of Brazil's subsidized housing program and home-improvement loans, "*Minha Casa Minha Vida*," ahead of the 2014 presidential election, which also boosted lending by state-owned banks.[3] With private credit, governments adopt policies that amount to the banking sector supplying more credit, or to provide debt-relief for indebted borrowers, be it corporations or households. In South Africa, ahead of the 2019 election, the parliament passed a law that allowed heavily indebted low-income households to apply for things such as temporary suspension of debt or outright debt forgiveness (full or partial). In Japan in the 1990s, the government used loan guarantees to provide reliefs to troubled banks, so that they could keep lending to otherwise insolvent companies (Caballero et al. 2008). For a detailed documentation of the variety of policy instruments to boost credit, many of which are actually fiscal policies, we refer to the work of Lepers (2024).

The importance of credit as a policy tool extends beyond elections, encompassing a range of socioeconomic objectives such as redistribution, social insurance, financial inclusion, even financial crisis management. In 2020, facing a COVID-19 crisis, France and other Euro area economies adopted credit guarantee programs so that banks can continue lending to businesses (including small and medium enterprises) that otherwise struggle to secure financing (Dautovic and Hsieh 2024). We argue that elections often serve as catalysts for their strategic use, arguably because it may appease voters who were concerned with rising economic inequalities (Rajan 2010, Ahlquist and Ansell 2017, Chinn and Frieden 2011, Kumhof et al. 2015, Bazillier et al. 2017). Credit allows households to buy things they could not afford before and maintain a lifestyle similar to their peers (Carr and Jayadev 2015). These policies also provide windfalls to financial institutions that will intermediate the cheap credit.

Credit expansion may have satisfied society's demands for redistribution and could explain why voters were relatively less attentive to the issue of income inequality (at least until the 2008

[2] Quinn (2019) notes that credit-based policies may be less contentious than fiscal redistribution as it involves a market-based policy. In the U.S. in particular, this may be attractive as it feels more like a form of self-help rather than a hand-out.

[3] "Brazil's Development Banks—A Ripple Begets Flood." The Economist October 19, 2013.

financial crisis), despite the sharp increase in income inequality in many Western economies during the 1980s and 1990s. As The Economist magazine noted in a 2012[4] article:

> "*During the go-go years before the financial crisis, growing income disparities were hardly at the top of politicians' to-do list. One reason is that asset bubbles and cheap credit eased life for everyone*."

This implies that citizens may be willing to overlook social welfare or public insurance as long as they have access to private means of managing risk through available bank credit and housing options.[5]

2.2. The Credit Constituency Hypothesis: Bank credit, housing and voting behavior

While several scholars have outlined how incumbents benefit from loosening access to credit, much less work examines whether this strategy effectively wins votes for the incumbent. In other words, how sensitive are voters to the provision of credit and are they are willing to reward politicians that expand credit and punish those that contract it?

To our knowledge, the first study on this topic is by Antoniades and Calomiris (2020). In light of the Global Financial Crisis that was triggered by a housing market boom, Antoniades and Calomiris (2020) found that reductions in mortgage credit supply negatively affects the vote share of incumbent presidential candidates in the 2012 U.S. presidential election, although higher supply of credit in the boom period of the early 2000s did not have a discerning effect between Democratic or Republican presidential candidates. Using one of the most controversial debt-relief programs, Aidt et al. (2024) show that a promise to forgive (partial or in full) debt to defaulting consumers (whose names and geo-locations were published) increased the vote for the incumbent party's presidential candidate by 10% in Georgia in 2018, in a very competitive two-round election. As the debt write-off were allocated to individuals who have been in default for over a year, following Muller and Verner (2023), easy credit disproportionately benefits people and sectors who are facing more financing constraints.

In the aforementioned examples, the link between bank credit and voting behavior aligns with the incumbency-oriented model. However, there are alternative economic voting models. In the

[4] "For richer, for poorer." The Economist October 11, 2012.

[5] Markgraf and Rosas (2024) found that individuals are less likely to demand redistribution when they find it easier to borrow.

partisan model, voters' perceptions of the economy and voting behavior are influenced by their ideological alignment, where economic outcomes are analyzed in conjunction with the performance of ideological parties. For instance, Dassonneville and Lewis-Beck (2020) analyze whether leftist parties are punished for rising income inequality. More recent studies linking credit and housing variables to voting behavior fall under the partisan dealignment model (e.g., Hernandez and Kriesi 2016), in which economic performance is evaluated relative to mainstream parties' performance versus newer, populist, and radical parties. This shift in perspective stems from the significant gains by populist and radical parties as economies worsened after the 2008 financial crisis and subsequent austerity policies.

In this vein, recent research investigating credit and housing focus on the vote share of the far-right parties as the outcome variable. Using Germany's 1931 banking crisis and leveraging bank branches data, Doerr et al. (2018) show that areas more affected by the crisis experienced a surge in Nazi votes, with radicalization amplified in cities with prior anti-Semitic tendencies. Ansell et al (2022) found a negative relationship between local housing prices and changes in support for right-wing populist parties in Scandinavian countries. Based on precinct-level data in Denmark and municipal-level data in other Nordic countries, this effect was chiefly concentrated among homeowners: feeling left out of a housing boom (they had presumably bought their houses in a prior era, hoping to see asset appreciations) made certain constituents reject mainstream political elites, which made them more susceptible to socially conservative and welfare chauvinistic right-wing populist parties.

In Hungary, where about 60% of mortgages were denominated in foreign currency by 2008, Gyongyosi and Verner (2022) used the negative external shock of the depreciation of Hungary's currency in 2008 to investigate how household financial distress contribute to increasing support for a populist party. Using zip-code level data on Hungarian household debt and electoral outcomes from 2004 to 2008, they found that higher foreign currency debt in mortgage debt exposure is associated with a 4.4% increase in the far-right electoral support. The important insight of this work is that it may not just be the lack of credit that voters respond to electorally, but it could be that the difficulty in repaying debt is what leads many voters to punish incumbents or mainstream parties and reward populist parties. Distressed debtors became constituents of far-right parties that claimed to speak "for the people" vs. "the elite" who presumably favored creditors.

Moving from consumer-focused debt and housing policies, Dautovic and Hsieh (2023) examined the impact on support for far-right populist parties from credit fiscal support, with a focus on corporate borrowers. They focused on credit support to firms, specifically government guarantee of bank credit to firms rolled-out during COVID-19, using data from the 2017 presidential and 2022 legislative elections and municipal-level loan data on the French public investment bank BPIfrance. Using a difference-in-difference identification strategy, they found a guarantee from the French public investment bank to firms applying for bank loans is associated negatively with the increase in the support for far-right parties in the address of such firms. The main mechanism highlighted was protection from unemployment. Arguably, credit guarantees lowered the capability of populist parties to leverage grievances about the economy and turn it to their advantage as the guarantee allowed lending to persist and lowered the probability of job losses.[6]

In the UK, two have studies have examined on debt, housing[7] and electoral outcomes. Just like in the U.S., government policies to subsidize housing has a long history in the UK and are frequently part of campaign promises. Even during austerity, when many welfare programs were cut (e.g., Universal Credit reduced benefits to the tune of approximately 2 million adults losing £1000 per year, according to Beatty and Fothergill 2016), credit risk subsidies and programs to help first time homeowners remained (Antoniades and Calomiris 2020). Interestingly, the work of Ansell and Cansunar (2021) showed a divide in electoral preferences and redistributive preferences between homeowners and renters. Using data drawn from European and British social surveys and analysis of British elections, they found that as housing becomes more expensive (more unaffordable), citizens appear in aggregate to become *less* supportive of redistribution policies and less likely to support left-wing parties. They argue that this is picking up the preferences of homeowners who are forming a majority in most European regions (in the UK, homeownership rate as of 2022 is 67.7% according to OECD) and would like to preserve high home prices. This suggests that home price has a heterogeneous impact on voting behavior.

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[6] For a related literature on the comparison of state-bank relations and the different effects of France and Germany's state loan guarantee programs during COVID-10 see Massoc (2022).

[7] The most visible credit-enhancing policy involve homeownership (e.g., mortgage subsidies, tax credits for property tax etc.)

Meanwhile, Wiedemann (2024) found that rising consumer debt in the UK leads to lower electoral support for the incumbent party, contrary to what one might expect from the political credit cycles hypothesis. However, it seems that his study is looking at a very specific sub-set of debtor behavior, which is those who have experienced a reduction in welfare payments and have been forced to take out loans to offset cuts to social benefits. Viewed in this light, it is not that surprising that his study found that respondents who reported borrowing money to pay for essentials are more likely to punish the incumbent Tories,[8] and vote for the opposition Labour. By looking at unsecured debt (e.g., credit card debt), this ignores the typical recipients who are "courted" by politicians who try to loosen credit policies. That is, these are distressed households forced to go into debt because a traditional source of their regular income has been lowered. Meanwhile, the typical borrower profile in the PCC literature are households that are looking to borrow more to continue a middle-income life-style and consume positional goods (Ahlquist and Ansell 2017). If anything, in light of the cuts in housing subsidy programs made by the Tories in light of austerity, which is documented in the data formed by Lepers (2024), it actually is logical to find that voters vote out the incumbent, as the housing policies in the UK become less generous.

In sum, there is a rising scholarship investigating the links between credit conditions, housing affordability, and debt-relief programs on voting behavior, whether conducted in the traditional incumbency-oriented model or in the spirit of the partisan dealignment model (support for far-right and populist parties as the dependent variable). This literature has proved insightful to advance our understanding of the context of the credit constituency hypothesis.

2.3. Types of bank credit and Variations in the Credit Constituency Hypothesis

We argue that the literature on political credit cycles has not paid enough attention to variations in the different types of bank credit, such as the type of borrower. Generally, election-seeking incumbents have to strategically select instruments that give the maximum electoral benefits, such as by choosing policies that are palpable to voters, and attributable by voters, to incumbents (Franzese and Jusko 2009). One of the risks of "priming the credit pump" ahead of elections is that it can lead to an unsustainable credit boom. But these risks may be minimized, depending on the type of borrower. Empirical research in financial and economic development has

[8] Moreover, the narrow focus on only austerity-driven debt in his argument ignores the fact that governments play an active role in making consumer debt more widely accessible in their countries to begin with.

advanced our understanding of which types of credit expansion are most significant for economic growth and financial stability, highlighting that household debt tends to be more destabilizing than corporate debt.[9] According to Jappelli and Pagano (1994), alleviating credit constraints on households reduces the saving rate and does not always correspond to generating income growth. In contrast, with minimal asymmetric information in lending markets, business debt is more likely to enhance productivity and improve capital allocation (Xu 2000). The problem is, most of the increase in credit/GDP since the 1990s is the result of household debt[10], not corporate debt or industry debt (Muller and Verner 2023), especially in advanced economies. Documenting this shift in the debt composition towards more household debt, Bezemer et al. (2020) show in a sample of 14 economies over 1990-2016 that while bank credit/GDP rose from 74% to 116%, most of it was attributed to increases in household credit.

Unfortunately, the most destabilizing type of bank credit—household or consumer credit—is also the kind that is likely most influential to voters electorally. Through regression analysis of credit gaps relative to GDP and real credit/GDP growth, Lepers (2023) found that when government popularity is high, there is less impetus to increase bank credit. However, drops in popularity appear to significantly drive an increase in household credit to GDP, and no such effect of changes in popularity were found for corporation credit to GDP. This finding underscores the importance of disaggregating credit types and indicates that facilitating household credit is a more effective tool for electoral gains.

Within the subset of household credit, is there a notable distinction between household mortgages compared to household consumer credit? After all, housing is the most notable asset for most households and it stands to reason that households would attach more importance to the ability to borrow for a home, compared to non-mortgage loans such as car loans, durable good loans. Lepers (2024) compares effects of changes in fiscal policy instruments (subsidies and tax breaks) on household consumer credit versus household mortgage credit. He shows that an expansion in these fiscal policies have a lagged but significant impact on increasing real mortgage credit to GDP and the proportion of mortgage credit within total credit. Conversely, these fiscal

[9] For more general economic modeling of those issues see e.g., Bahadir and Valev 2023, Beck et al. 2012, Bezemer and Zhang 2019 ,Gorton and Ordonez 2014, Jorda et al. 2016.

[10] Note that rapid mortgage credit growth could also be less alarming as long as the debt also has a positive domino effect on the income growth of business debt.

subsidies exhibit limited influence on consumer credit. However, this does not necessarily prove that voters would be more likely to react to mortgage credit compared to regular consumer credit. The fiscal subsidies analyzed by Lepers are mostly related to housing credit and home-buying (e.g., mortgage and purchase subsidies, mortgage interest deductibility and mortgage guarantees) and just two are more general consumer credit tax breaks (savings account incentives and capital gains relief.

One important conditional factor to consider here is that the importance of homeownership varies across countries. For example, in France, a substantial portion of the population is content with renting, contrasting with the United Kingdom and the United States, where approximately two-thirds of households are homeowners. This variation affects how credit policies are perceived and leveraged in political strategies. Lepers and Thiemann (2024) further contextualize this by analyzing macroprudential responses in 17 EU countries following the 2008 financial crisis. They found that countries with low political salience of homeownership (e.g., Austria, France, Finland) were more willing to enact countercyclical measures to curb housing booms.[11] In contrast, those with high political salience, such as Germany, Luxembourg, and the Netherlands, were constrained by political considerations, limiting their regulatory response. As such, we take no clear position on whether household mortgage credit has a more salient impact on voting behavior compared to non-mortgage household credit, but we test for any meaningful differences between the two in our hypothesis.

Leveraging disaggregated credit data by type of borrower (household vs firms) and further by sector (household mortgage vs non-mortgage credit), this paper investigates variations in the 'credit constituency' hypothesis. We first test the relationship between bank credit and the vote share of the incumbent party, following the incumbency-oriented voting model. We then test whether the effects of bank credit on the vote share of the incumbent party depends on the type of borrower by type of borrower (household vs firms). Our main hypotheses are summarized below.

> <u>Hypothesis 1</u>. There is a positive relationship between the amount of bank credit to GDP and the vote share of the incumbent party from one election to another (national legislative elections), controlling for economic growth, inflation rate and the unemployment rate.

[11] The political salience of homeownership is measured among others by coding political parties that endorse homeownership in their platforms, with data sourced from existing datasets (e.g., Kohl 2018) and expanded to include relevant elections and countries up to 2019.

Hypothesis 2. The effects of bank credit on the vote share of the incumbent party depends on the type of borrower. There is a positive relationship between bank credit to households and the vote share of the incumbent party from one election to another (national legislative elections), not bank credit to corporations.

Hypothesis 3. The effects of bank credit on vote share of the incumbent party are differentiated across household credit types (household mortgage vs non-mortgage credit).

While we expect that strategies of mobilizing votes via easy access to credit to be more effective for household credit compared to corporate credit, we take no clear position on the distinction between household mortgage credit and non-mortgage credit.

3. Methodology and Preliminary Empirical Results

3.1. Data and Econometric model

To test the effects of changes in bank credit and the electoral support of the incumbent, we analyze national-level legislative elections in 37 OECD countries. The sample consists of both parliamentary and presidential systems. We run pooled OLS regressions with robust standard errors clustered around countries, following Hernandez and Kriesi (2016), based on the following equation:

$$\mathbf{Vote_{i,t} = \mathit{f}(Vote_{i,e-1} , Credit_{i,t-1}, Macroeconomy_{i,t-1}, , Political\ institutions_{i,t})} \qquad (1)$$

The subscript i refers to the country and the subscript t refers to years in which national legislative elections took place in country i; the subscript e further clarifies that it is the election year.

$Vote_{i,t}$ represents the percentage of votes received by the incumbent head of government's party, which is the Prime Minister's party for a parliamentary system and the president's political party for a presidential system, following (Hellwig, 2010) and Bouvet and King (2016). We include the lagged vote share received by the current incumbent party in the previous parliamentary election to capture voting inertia, long-term trends that might be more favorable to one party (Palmer & Whitten, 1999), or issues that are not controlled for in the empirical analysis for lack of data (Valdini & Lewis-Beck, 2018). The main data source for incumbent vote share is the Database of Political Institutions (Cruz, Keefer, & Scartascini, 2021) supplemented by official records released by each country's electoral authority. To ensure accuracy, wherever possible, we cross-check this information with the vote shares reported in the IFES Election Guide, IPU PARLINE (Global Data on National Parliaments) and election reports in *Electoral Studies.*

Independent variables enter the specifications with a one-year lag, given that researchers have found that voters tend to be myopic with a one-year memory length and that earlier parts of the legislative period are not as important (e.g., Peltzman 1990). It should be noted that existing studies rarely involve lags of more than one year (Hanni and Boschler 2019).

Credit is sourced from Bezemer et al. (2020), covering loans by depository institutions broken down into four categories of recipients: 1)Non-financial corporations (excluding real estate services), 2)financial corporations (insurance companies, pension funds, excluding inter-bank lending), 3) households for home loans or household mortgages, and 4) households for consumer credit (all types of non-mortgage loans, such as for cars, other consumer durable goods, student loans, credit card advances etc.). The data are available from 1990-2016. For robustness, measures from IMF with less fine-grained breakdown (only consumer credit vs corporate credit) are also used in some specifications (Mbaye et al. 2018, Muller and Verner 2019)[12]. These variables enter in several different operationalization: annual percentage change in credit to GDP (nominal and real), and annual percentage change in the share of the relevant category of credit to overall credit, to test varying impacts of each category of bank credit. One weakness about this data is that it does not include securitization. So, there is an under-estimation of the amount of credit for certain advanced economies such as the U.S. where non-bank credit (bonds and short-term papers) and a large part of mortgages is securitized.

Macroeconomy$_{i,t-1}$ is a vector of macroeconomic variables including economic growth (measured as the annual growth in per capita real GDP), national unemployment rate, national CPI-based inflation rate, the annual change and level of in income inequality (measured with Gini index).[13] We measure income inequality by annual percentage change in the Gini index after correcting for taxes and transfers, taken from Standardized World Income Inequality Database

[12] Results remain qualitatively similar and are available upon request.
[13] Using actual macroeconomic data and actual vote shares instead of political support/vote intentions and individual-level economic sentiment expressed in public opinion surveys would make our empirical strategy less prone to endogeneity issues. Since we are using country level voting data regressed on past economic performance (one-year lag), there is less of a chance that the vote share of the incumbent party in year t would affect the change in the economic performance of the next election

(SWIID) compiled by Solt (2024). While the level of the Gini itself may be an important factor, based on the literature we discussed, changes in income inequality may also be noticeable by voters, so we include both variables. We also control for the annual % change in real home prices from OECD as one of the regressors (column 2 in Table 1), while noting that the literature surveyed suggest that home prices could impact vote share of the incumbent positively or negatively, depending on whether one is a home-owner or a renter.

Political institutions, following Hernandez and Kriesi (2016), we include government fractionalization (following Bouvet and King 2016[14]) and party orientation of the chief executive and a dummy variable for parliamentary countries.

For our sample selection criteria, we selected based on countries that have time-period availability for the disaggregated credit data. Our goal is to get as many countries where data on credit disaggregation is available. In addition, they have to be democratic and have competitive elections. We following the Database of Political Institution's *leic* variable, which is a variable indicating whether or not elections for members of the legislative chamber are competitively elected, implying that opposition parties have a non-zero probability of taking over power.

3.2. Results

In Table 1, we present preliminary results from our baseline regression, as described by Equation 1. Based on these preliminary results, we note the following patterns. In column 1, we include total bank credit to GDP growth. Notably, this variable is not statistically significant. Controlling for economic growth, inflation rate and the unemployment rate, the *aggregate* real bank credit to GDP growth is not found to be statistically significant with respect to the vote share of the incumbent party. We add real home price growth to the same specification (column 2) and found similar results: housing price growth is also statistically insignificant.

Second, results from column 3 (disaggregated nominal credit to GDP growth) and column 4 (disaggregated real credit to GDP growth) suggests that when credit is disaggregated into different types of borrowers, we find that only the coefficient on household credit is positive and statistically significant, as expected while those for corporate credit are not.

[14] The more fragmented a government is, the smaller the vote share each ruling parties will receive, as it becomes more difficult for voters to hold a specific party accountable for national economic performance.

Table 1. Credit, economic conditions and the performance of incumbent parties

VARIABLES	(1)	(2)	(3)	(4)
Vote share$_{e-1}$	0.811***	0.773***	0.746***	0.746***
	(0.0603)	(0.0591)	(0.0681)	(0.0681)
Unemployment rate$_{t-1}$	-0.326***	-0.231**	-0.347***	-0.347***
	(0.104)	(0.113)	(0.121)	(0.121)
Economic Growth$_{t-1}$	0.500*	0.274	0.580**	0.580**
	(0.278)	(0.370)	(0.273)	(0.273)
Inflation rate$_{t-1}$	0.166	0.0720	0.0211	0.187
	(0.120)	(0.352)	(0.0868)	(0.162)
Level of Inequality$_{t-1}$	0.118	0.205	0.270**	0.270**
	(0.101)	(0.146)	(0.132)	(0.132)
% Change in Inequality$_{t-1}$	12.72	41.45	14.46	14.46
	(56.61)	(66.55)	(61.27)	(61.27)
Total bank credit/GDP growth $_{t-1}$	0.152	0.0947		
	(0.101)	(0.138)		
Real home price$_{t-1}$		0.0918		
		(0.115)		
HH consumer credit growth $_{t-1}$			11.57**	0.116**
			(4.522)	(0.0452)
HH mortgage credit growth$_{t-1}$			3.134	0.0313
			(8.248)	(0.0825)
Non-fin corp credit growth $_{t-1}$			1.939	(0.0452)
			(8.576)	0.0194
Fin corp credit growth $_{t-1}$			-0.0148	-0.000148
			(2.828)	(0.0283)
Parliamentary dummy	-0.400	-0.160	2.667	2.667
	(2.057)	(2.384)	(1.689)	(1.689)
Leftist party dummy for PM	-0.636	-1.141	-0.865	-0.865
	(0.965)	(1.178)	(1.257)	(1.257)
Constant	1.055	-1.345	-4.221	-4.221
	(4.730)	(5.381)	(4.971)	(4.971)
Observations	222	176	187	187
R-squared	0.555	0.512	0.536	0.536

Robust standard errors in parentheses, *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Third, while the changes in consumer credit to GDP has a positive and significant coefficient on the vote share for the incumbent, the coefficients on household mortgage credit are not statistically significant. In light of the work of Bezemer et al. (2020) and Muller and Verner (2023) which documented a substantive shift in the debt-composition towards mortgages, especially among OECD economies, this is a surprising result. It also inconsistent with the prediction of Lepers (2023) that household mortgage credit is more politically salient than household non-mortgage credit.

While more careful examination is needed to offer insights into this finding, one explanation could be that this captures degrees of political salience of homeownership and different availability and depth of instruments for mortgages. For example, unlike most other countries, the U.S. stands unique in the wide range of availability of mortgage instruments that can offer fixed interest rates on mortgages up to 30 years. Another aspect is the proportion of homeowners versus renters, which we hope to address in a future iteration of this paper. We also compare the breakdown of the trends in the credit variables across several different countries, some in which housing and home-ownership were identified by Lepers and Thiemann (2024) to highly politically salient (UK, Denmark) vs those with low political salience (France and Austria). These in Appendix A1 and A2 show that while on average, mortgage credit for household outpaced other categories since the early 1990s in our sample countries, country-by-country experiences vary. In certain cases, household consumer credit is the ones with notable jumps (Austria), in some it is mortgages for households (the UK), while in others, all four categories show similar upward ticks, and some coincide with election times.

Finally, regarding the other macroeconomic variables that are widely considered to be important for economic voting, the regression results in Table 1 reveal notable associations between key economic indicators and the incumbent party's vote share. Specifically, the unemployment rate shows a consistently negative and statistically significant relationship with incumbent support, indicating that higher unemployment rates tend to reduce the vote share for the incumbent party. Economic growth, on the other hand, has a positive and significant effect in several specifications, suggesting that voters reward the incumbent during periods of economic expansion. Surprisingly, inflation, does not demonstrate a consistent or significant relationship with incumbent vote share across the models. It should be noted that the disaggregated credit data is only available up to 2016, so it does not capture the fast rise in prices observed starting from 2022. Moreover, several countries in the sample were affected by the 2008 financial crisis, where several incumbents were voted out of office despite falling prices.

4. Conclusion and Future Steps

This study explored the relationship between bank credit and voting behavior across OECD economies, focusing on how different types of credit expansion are associated with incumbent vote shares. Our preliminary findings indicate that while aggregate credit growth does not consistently affect incumbent support, disaggregated data reveal that household credit—especially consumer credit—shows a significant correlation with voting patterns. Surprisingly, mortgage credit does not exhibit the same degree of electoral salience, suggesting that voters may prioritize short-term credit access for immediate consumption over credit linked to long-term investments like homeownership, although we are aware these are only preliminary findings. Importantly, we do not claim a causal relationship, but rather identify patterns that highlight areas for further investigation.

These findings offer insights into the credit constituency hypothesis. It appears that, with respect to electoral outcomes, policies that expand consumer credit may be politically advantageous, possibly because they deliver immediate, visible benefits that voters may directly attribute to incumbents. The lack of a similar association with mortgage credit could reflect variations in homeownership salience across countries, or it may suggest that mortgage-related benefits are less immediately visible to voters. This differentiation between consumer and mortgage credit suggests a nuanced voter sensitivity to credit policies that warrants additional study.

In future work, we will aim to extend our analysis by addressing several key factors. First, incorporating homeownership versus renters from the OECD housing tenures dataset will allow us to examine how these different demographics influence the credit constituency effect. We also plan to control for financial crises, as such periods may amplify or alter the relationships observed. Additionally, using data on variations in national credit policies from Lepers' (2023) credit policy stance database, we can better capture how specific policy shifts impact voting behavior. Expanding on Hernandez and Kriesi’s approach, we aim to estimate vote shares across different parties, particularly to identify patterns in far-right support, which may reveal further nuances in credit's political effects. Finally, distinguishing between Western democracies and countries in

Central and Eastern Europe, East Asia, and Latin America will allow us to control for potential regional and democratic age differences.

References

Ahlquist, John S., and Ben W. Ansell. 2017. "Taking Credit: Redistribution and Borrowing in an Age of Economic Polarization." *World Politics* 69 (4): 640–75.

Aidt, Toke, Zareh Asatryan, and Lusine Badalyan. 2024. "Political Consequences of (Consumer) Debt Relief." SSRN Scholarly Paper. Rochester, NY. https://doi.org/10.2139/ssrn.4847230.

Alesina, Alberto, and Howard Rosenthal. 1995. *Partisan Politics, Divided Government, and the Economy*. Cambridge, Massachusetts: Cambridge University Press.

Ansell, Ben, and Asli Cansunar. 2021. "The Political Consequences of Housing (Un)Affordability." *Journal of European Social Policy* 31 (5): 597–613. https://doi.org/10.1177/09589287211056171.

Ansell, Ben, Frederik Hjorth, Jacob Nyrup, and Martin Vinæs Larsen. 2022. "Sheltering Populists? House Prices and the Support for Populist Parties." *The Journal of Politics* 84 (3): 1420–36. https://doi.org/10.1086/718354.

Antoniades, Alexis, and Charles W. Calomiris. 2020. "Mortgage Market Credit Conditions and U.S. Presidential Elections." *European Journal of Political Economy* 64 (September):101909.https://doi.org/10.1016/j.ejpoleco.2020.101909.

Bazillier, Rémi, and Jérôme Hericourt. 2017. "The Circular Relationship Between Inequality, Leverage, and Financial Crises." *Journal of Economic Surveys* 31 (2): 463–96. https://doi.org/10.1111/joes.12150.

Benton, Allyson Lucinda. 2005. "Dissatisfied Democrats or Retrospective Voters?: Economic Hardship, Political Institutions, and Voting Behavior in Latin America." *Comparative Political Studies* 38 (4): 417–42. https://doi.org/10.1177/0010414004273856.

Bezemer, Dirk, Anna Samarina, and Lu Zhang. 2020. "Does Mortgage Lending Impact Business Credit? Evidence from a New Disaggregated Bank Credit Data Set." *Journal of Banking & Finance* 113 (April):105760. https://doi.org/10.1016/j.jbankfin.2020.105760.

Bezemer, Dirk, and Lu Zhang. 2019. "Credit Composition and the Severity of Post-Crisis Recessions." *Journal of Financial Stability*, Financial Services Indices, Liquidity and Economic Activity, 42 (June):52–66. https://doi.org/10.1016/j.jfs.2019.05.010.

Bircan, Çağatay, and Orkun Saka. 2021. "Lending Cycles and Real Outcomes: Costs of Political Misalignment." SSRN Scholarly Paper. Rochester, NY. https://doi.org/10.2139/ssrn.3784392.

Bouvet, Florence, and Sharmila King. 2016. "Income Inequality and Election Outcomes in OECD Countries: New Evidence Following the Great Recession of 2008–2009." *Electoral Studies* 41 (March):70–79. https://doi.org/10.1016/j.electstud.2015.11.006.

Caballero, Ricardo J., Takeo Hoshi, and Anil K. Kashyap. 2008. "Zombie Lending and Depressed Restructuring in Japan." *American Economic Review* 98 (5): 1943–77. https://doi.org/10.1257/aer.98.5.1943.

Carr, Michael D., and Arjun Jayadev. 2015. "Relative Income and Indebtedness: Evidence from Panel Data." *Review of Income and Wealth* 61 (4): 759–72. https://doi.org/10.1111/roiw.12134.

Dassonneville, Ruth, and Michael S Lewis-Beck. 2014. "Macroeconomics, Economic Crisis and Electoral Outcomes: A National European Pool." *Acta Politica* 49 (4): 372–94. https://doi.org/10.1057/ap.2014.12.

Dautović, Ernest, and Robin Hsieh. 2023. "Government-Guaranteed Credit and Populism." SSRN Scholarly Paper. Rochester, NY. https://doi.org/10.2139/ssrn.4488133.

Dinç, I. Serdar. 2005. "Politicians and Banks: Political Influences on Government-Owned Banks in Emerging Markets." *Journal of Financial Economics* 77 (2): 453–79. https://doi.org/10.1016/j.jfineco.2004.06.011.

Fossati, Diego. 2014. "Economic Vulnerability and Economic Voting in 14 OECD Countries." *European Journal of Political Research* 53 (1): 116–35. https://doi.org/10.1111/1475-6765.12019.

Franzese, Robert J., and Karen Long Jusko. 2008. "Political-Economic Cycles." In *The Oxford Handbook of Political Economy*, edited by Donald A. Wittman and Barry R. Weingast, 0. Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199548477.003.0030.

Frieden, Jeffry, and Menzies Chinn. 2011. *Lost Decades: The Making of America's Debt Crisis and the Long Recovery*. New York, NY: WW Norton & Company.

Gyöngyösi, Győző, and Emil Verner. 2022. "Financial Crisis, Creditor-Debtor Conflict, and Populism." *The Journal of Finance* 77 (4): 2471–2523. https://doi.org/10.1111/jofi.13138.

Hellwig, Timothy. 2010. "Elections and the Economy." In *Comparing Democracies: Elections and Voting in the 21st Century*, 3:184–201. Sage Publications. https://sk.sagepub.com/books/comparing-democracies-3e.

Hernández, Enrique, and Hanspeter Kriesi. 2016. "The Electoral Consequences of the Financial and Economic Crisis in Europe." *European Journal of Political Research* 55 (2): 203–24. https://doi.org/10.1111/1475-6765.12122.

Jappelli, Tullio, and Marco Pagano. 1994. "Saving, Growth, and Liquidity Constraints*." *The Quarterly Journal of Economics* 109 (1): 83–109. https://doi.org/10.2307/2118429.

Jappelli, Tullio, Marco Pagano, and Marco Di Maggio. 2013. "Households' Indebtedness and Financial Fragility." *Journal of Financial Management, Markets and Institutions*, no. 1, 23–46.

Kern, Andreas, and Puspa Amri. 2021. "Political Credit Cycles." *Economics & Politics* 33 (1): 76–108. https://doi.org/10.1111/ecpo.12158.

Kumhof, Michael, Romain Rancière, and Pablo Winant. 2015. "Inequality, Leverage, and Crises." *American Economic Review* 105 (3): 1217–45. https://doi.org/10.1257/aer.20110683.

Lepers, Etienne. 2023. "Surfing the Credit Wave: Government Popularity as Driver of Credit Cycles." *European Journal of Political Economy*, August, 102456. https://doi.org/10.1016/j.ejpoleco.2023.102456.

Lepers, Etienne, and Matthias Thiemann. 2024. "Taming the Real Estate Boom in the EU: Pathways to Macroprudential (in)Action." *Regulation & Governance* 18 (2): 513–33. https://doi.org/10.1111/rego.12529.

Lewis-Beck, Michael S., and Mary Stegmaier. 2013. "The VP-Function Revisited: A Survey of the Literature on Vote and Popularity Functions after over 40 Years." *Public Choice* 157 (3/4): 367–85.

Markgraf, Jonas, and Guillermo Rosas. 2024. "Borrowing to Self-Insure? Credit Access and Support for Welfare." *The Journal of Politics* 86 (2): 642–55. https://doi.org/10.1086/726924.

Massoc, Elsa Clara. 2022. "Having Banks 'Play along' State-Bank Coordination and State-Guaranteed Credit Programs during the COVID-19 Crisis in France and Germany." *Journal of European Public Policy* 29 (7): 1135–52. https://doi.org/10.1080/13501763.2021.1924839.

Mbaye, Samba, Marialuz Moreno Badia, and Kyunglae Chae. 2018. “Bailing Out the People? When Private Debt Becomes Public.” IMF Working Papers. https://www.imf.org/en/Publications/WP/Issues/2018/06/21/Bailing-Out-the-People-When-Private-Debt-Becomes-Public-45904.

Müller, Karsten. 2023. “Electoral Cycles in Macroprudential Regulation.” *American Economic Journal: Economic Policy* 15 (4): 295–322. https://doi.org/10.1257/pol.20200626.

Müller, Karsten, and Emil Verner. 2023. “Credit Allocation and Macroeconomic Fluctuations.” Working Paper. Working Paper Series. National Bureau of Economic Research. https://doi.org/10.3386/w31420.

Murillo, M. Victoria, and Giancarlo Visconti. 2017. “Economic Performance and Incumbents’ Support in Latin America.” *Electoral Studies* 45 (February):180–90. https://doi.org/10.1016/j.electstud.2016.10.007.

Nannestad, Peter, and Martin Paldam. 1994. “The VP-Function: A Survey of the Literature on Vote and Popularity Functions After 25 Years.” *Public Choice* 79 (3/4): 213–45.

Nordhaus, William D. 1975. “The Political Business Cycle12.” *The Review of Economic Studies* 42 (2): 169–90. https://doi.org/10.2307/2296528.

Peltzman, Sam. 1990. “How Efficient Is the Voting Market?” *The Journal of Law and Economics* 33 (1): 27–63. https://doi.org/10.1086/467199.

Quinn, Sarah L. 2019. *American Bonds: How Credit Markets Shaped A Nation*. Vol. 160. Princeton, NJ: Princeton University Press.

Rajan, Raghuram. 2011. *Fault Lines: How Hidden Fractures Still Threaten the World Economy*. New Haven, CT: Princeton University Press.

Solt, Frederick. 2024. “Measuring Income Inequality Across Countries and Over Time: The Standardized World Income Inequality Database.” Social Science Quarterly. https://fsolt.org/res/published/solt2020/.

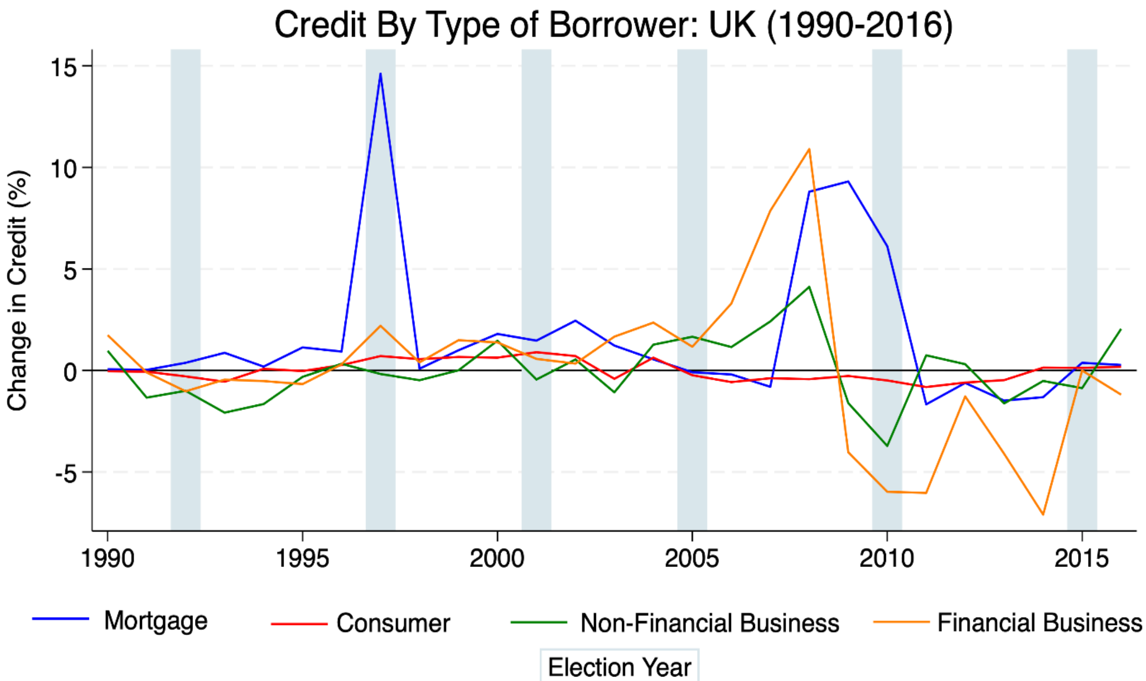
Tufte, E. R. 1978. *Political Control of the Economy*. Princeton, NJ: Princeton University Press.

Wiedemann, Andreas. 2024. “The Electoral Consequences of Household Indebtedness under Austerity.” *American Journal of Political Science* 68 (2): 354–71. https://doi.org/10.1111/ajps.12708.

Xu, Z. 2000. “Financial Development, Investment, and Economic Growth.” *Economic Inquiry* 38 (2): 331–44. https://doi.org/10.1111/j.1465-7295.2000.tb00021.x.

Appendix

Figure A1. Bank credit growth and Elections: High political salience of homeownership



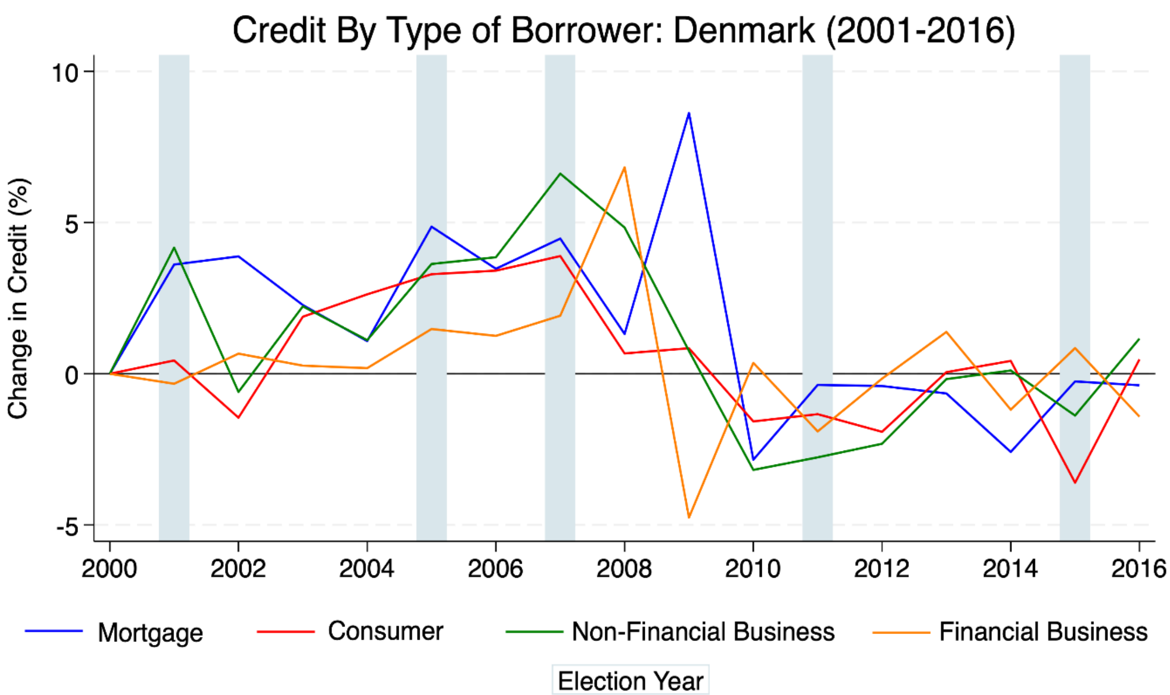
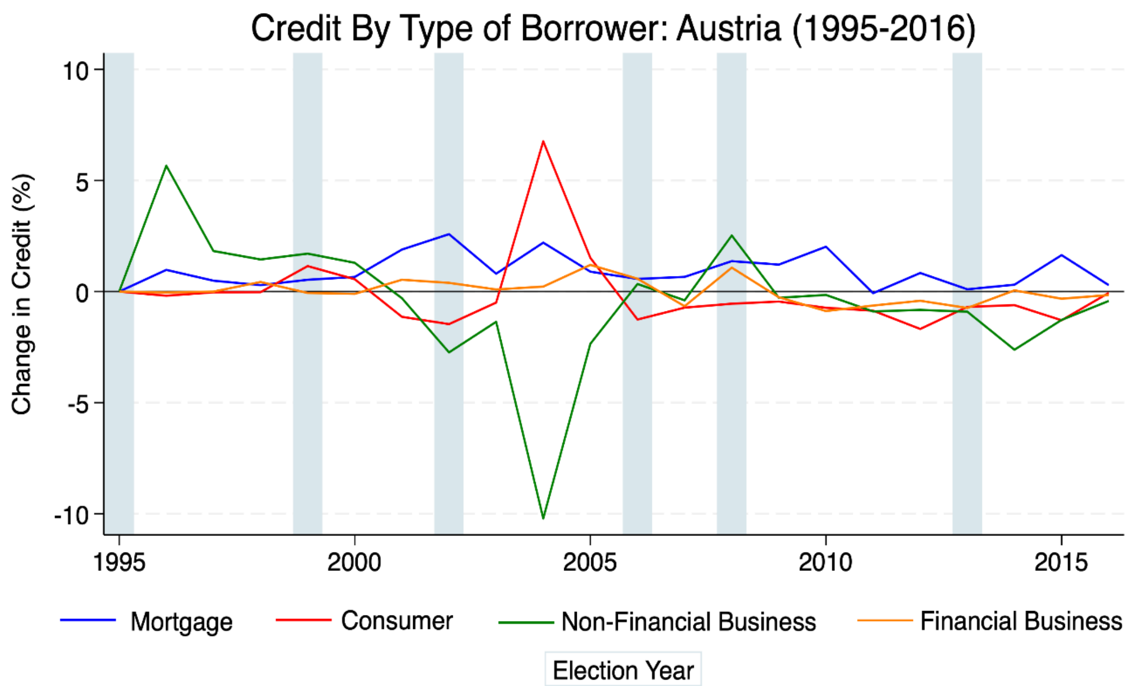
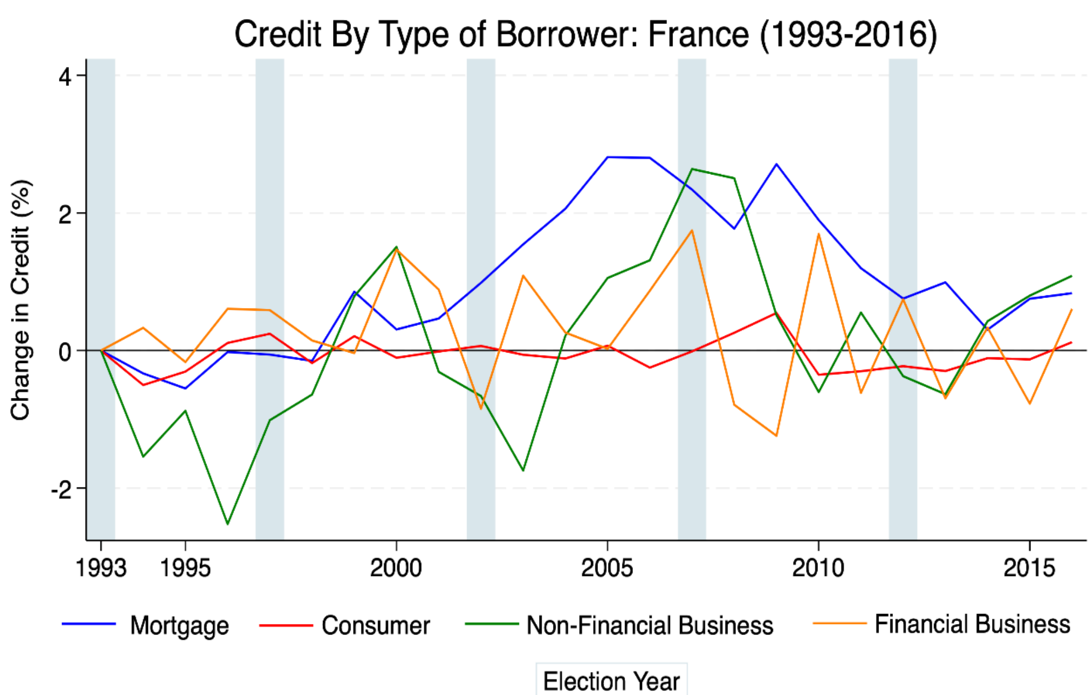


Figure A2. Bank credit growth and Elections: low political salience of homeownership


Credit By Type of Borrower: Austria (1995-2016)
Change in Credit (%)
10
5
0
-5
-10
1995
2000
2005
2010
2015
Mortgage
Consumer
Non-Financial Business
Financial Business
Election Year


Credit By Type of Borrower: France (1993-2016)
Change in Credit (%)
4
2
0
-2
1993
1995
2000
2005
2010
2015
Mortgage
Consumer
Non-Financial Business
Financial Business
Election Year