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Financial Crisis, Creditor-Debtor Conflict, and Populism

GYÓZÓ GYÖNGYÖSI and EMIL VERNER*

ABSTRACT

We study the impact of debtor distress on support for a populist far-right political party during a financial crisis. Our empirical approach exploits variation in exposure to foreign currency household loans during a currency crisis in Hungary. Foreign currency debt exposure leads to a large, persistent increase in support for the populist far right. We document that the far right advocated for foreign currency debtors' interests by proposing aggressive debt relief and was rewarded with support from these voters. Our findings are consistent with theories emphasizing that conflict between creditors and debtors can shape political outcomes after financial crises.

CAN A HOUSEHOLD DEBT CRISIS boost support for a populist political party? Financial crises, including the 2008 global financial crisis, are often followed by

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political polarization and increased support for populist parties, especially on the far right (Mian, Sufi, and Trebbi (2014), Funke, Schularick, and Trebesch (2016)). Many crises involve significant household financial distress, especially among debtors. Populist political movements, in turn, may emphasize debt relief for distressed borrowers as part of their political platform (Calomiris and Haber (2014)). Yet, direct evidence connecting debtor distress and support for populism remains scarce, and the mechanisms are not well understood.

In this paper, we examine how debtor distress affects support for a far-right populist party during a household debt crisis.¹ Our analysis focuses on the specific case of a household foreign currency (FC) debt crisis in Hungary, which coincided with the sudden rise of the populist far-right party Jobbik (Movement for a Better Hungary). Prior to the 2008 financial crisis, many Hungarian households borrowed heavily in FC, primarily Swiss franc. Widespread FC exposure led to a significant increase in debt burdens following a large and unexpected exchange rate depreciation.

Using variation across households and zip codes in exposure to FC debt, we find that household financial distress resulted in a significant and persistent increase in populist far-right support. To understand this effect, we show that the crisis led to disputes between debtors and creditors over how FC debts should be resolved. Jobbik attracted support from distressed debtors by advocating for aggressive debtor-friendly policies, including restructuring FC loans and suspending evictions. We argue that Jobbik's debtor-friendly stance fits with its broader claim to speak for "the people" against "the elite," "the bankers," and "international finance capitalism."

Hungary provides an appealing setting to study the connection between financial distress and populism. In particular, Hungary was not exposed to import competition and immigration shocks that help explain the success of populist parties in western Europe and the United States. However, households were severely, directly affected by financial shocks in the 2008 financial crisis as a consequence of a major FC household lending boom during the 2000s.

The household lending boom in Hungary started in 2000 when the government introduced an interest rate subsidy program for local currency (LC) mortgage loans. The program was cut back in 2004, increasing the relative cost of LC loans and fueling a phase of FC lending. By 2008, over 60% of household loans were denominated in FC, primarily Swiss franc. After a decade of exchange rate stability, the Hungarian forint depreciated by 23% between September 2008 and the April 2010 election. This increased household debt by 4% of precrisis GDP and resulted in severe financial distress for FC debtors.

Figure 1 shows that the increase in FC debt burdens due to the depreciation coincided with a surge in support for the populist far-right party. After receiving only 2.6% of the votes in the 2006 election, the far right received 17% in 2010 and 20% in 2014, making it the "most successful far-right party in the European Union" in the years immediately after the Global Financial Crisis.²

¹ As we discuss in Section I, by populism, we mean anti-establishment parties that claim to speak for "the people" against elites or outsiders (Mudde (2007)).

² "Legal But Not Fair," Kim Lane Scheppele, *The New York Times*, April 13, 2014.

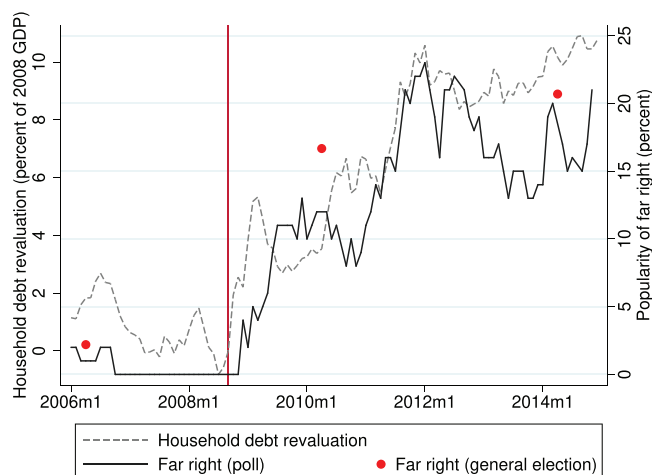


Figure 1. Household foreign currency debt shock and support for the populist far right.

This figure shows the increase in household debt burdens induced by the exchange rate depreciation (dashed line) and the popularity of far-right populist party Jobbik (Movement for a Better Hungary) based on polling data (solid line) and parliamentary elections (dots). The household debt revaluation is calculated as the increase in 2008 household debt induced by the exchange rate depreciation, relative to 2008 GDP. Support for the far right in polling data is based on individuals who intend to vote. The vertical line represents September 2008, the month prior to the exchange rate depreciation. (Color figure can be viewed at wileyonlinelibrary.com)

This paper is devoted to establishing that part of this relation is causal and understanding why exposure to FC loans increased support for the populist far right.

To quantify the effect of the shock to debt burdens on voting outcomes, we exploit cross-sectional variation in households' exposure to the exchange rate shock through their debt positions. We build a zip-code-level data set combining administrative household credit registry data and election outcomes. We define exposure to the FC debt shock at the zip code level as the share of FC-denominated household loans before the depreciation. This setting allows us to focus on a precisely measured shock to debt burdens arising from a particular risky loan product and trace how it affects political outcomes.³

What explains why some households have FC debt while others have LC debt? Variation in exposure to FC debt primarily comes from the timing of borrowing. Households that borrowed during the period when LC loans were subsidized have LC loans, while almost all households who borrowed after the subsidies were curtailed have FC loans. At the regional level, the LC credit boom was more pronounced in areas with a higher branch density of domestic banks. With the cutback of the subsidy program, foreign banks expanded

³ Mudde (2015) highlights a challenge with previous work connecting financial crises and populism: "While crisis and globalization have some relationship to the rise of populism, globalization is related to everything and crisis is usually undefined and simply used whenever a populist party becomes successful."

their branch network and offered FC loans, resulting in higher FC exposure in previously underserved regions. At the individual level, the average characteristics of foreign and LC borrowers are similar, but FC borrowers have slightly higher education and income. At the same time, zip codes with higher FC exposure have lower average education and income, so we explicitly account for these differences in our empirical analysis.

Our main finding is that the zip-code-level household FC debt shock significantly increases the populist far-right vote share. In terms of magnitudes, a 10 percentage point unanticipated debt-to-income shock raises the far-right vote share by 1.6 to 3.0 percentage points between 2006 and 2010. Our preferred estimate explains 3 percentage points, or one-fifth, of the overall rise in the far-right vote share. The effect of the debt shock is persistent across several postcrisis elections, implying that debtor distress can have a long-lasting impact on political preferences.

We tackle a variety of identification concerns to support our main finding. The level and change in the far-right vote share are similar before the crisis in high- and low-exposure zip codes, consistent with parallel trends. The estimated effect of FC debt exposure on far-right support is robust to a wide variety of controls, the choice of exposure measure, and estimation on a propensity-score-matched sample. Further, the effect is not driven by alternative explanations such as differences in historical extremist attitudes, immigration patterns, local labor market shocks, financial literacy, or house price shocks.

Why does FC debt exposure increase far-right support? We present narrative evidence that the depreciation led to disputes over who should bear the cost of adjustment to the crisis. FC borrowers demanded debt relief, while banks pursued repayment aggressively. In this dispute, the far-right populist party Jobbik campaigned on a variety of debt relief measures for FC debtors. This included converting FC loans into domestic currency at the precrisis exchange rate, extending loan maturities, pausing installment payments, suspending evictions, and prohibiting debt collection after foreclosure.⁴ In contrast, other parties had vague proposals or did not mention FC debtors in their campaign manifestos. Textual analysis of parliamentary speeches reveals that far-right speeches were more likely to use debtor-friendly rhetoric, emphasize debt relief, and blame international banks, the International Monetary Fund (IMF), and establishment parties for FC debtors' financial distress. The far right and other opposition parties also accused the incumbent Socialist government of being captured by the banking sector. The crisis thus affected the rhetoric and policies proposed by the far-right populist party.

Three additional pieces of evidence are consistent with the role of debtor distress and policies targeting FC debtors in leading these borrowers to support the far right. First, the increase in zip-code-level default rates on FC loans

⁴ While Jobbik was rarely explicit about how these policies would be financed, their frequent criticisms of the banking sector suggest that they would force banks to take losses. In a petition circulated by Jobbik in 2011, they explicitly called for banks to bear the losses associated with their proposal to convert loans to domestic currency at the precrisis exchange rate.

predicts a rise in the far-right share. In contrast, the relation is much weaker for default rates on LC loans. Second, individual-level survey data reveal that FC debtors themselves were more likely to support the far right than LC debtors. Third, while the FC debt shock depressed local economic activity (Verner and Gyöngyösi (2020)), this indirect channel accounts for only a small share of the overall effect of FC debt on far-right support. Overall, these patterns suggest that distressed FC debtors, who were the main target of far-right debt relief proposals, were most likely to support the far right.

We relate our evidence to broader theories of populism and the political consequences of financial crises. These patterns are consistent with conflict between creditors and debtors over how the cost of a crisis should be distributed being a key aspect of the political economy of adjustment to a debt crisis (Frieden (2015)). A populist party is well positioned to advocate for debtors' interests, as it fits with its broader claim to speak for "the people" against "the elite" and "outside threats." This strategy was likely particularly effective in Hungary's case, as FC loans were a salient source of distress that were originated mostly by foreign banks, an easily identifiable outsider group to blame. Advocating for debt relief can also signal that Jobbik was not captured by the establishment and the financial sector (Acemoglu, Egorov, and Sonin (2013)). Establishment parties, on the other hand, find it more costly to advocate for debt relief because they are ideologically opposed to interventions in private debt contracts, perceive higher indirect economic costs of intervention, have broader constituencies, are unwilling to experiment with radical policies, or are captured by the financial sector (Calomiris and Haber (2014), Rodrik (2017)).

We also examine several other channels for why FC debtor distress, and the financial crisis more broadly, may have contributed the rise of far right. General dissatisfaction with establishment parties or declining trust in the political system may have increased the appeal of anti-establishment parties to distressed borrowers. We present evidence that declining trust in the political system as a whole likely does not explain why distressed debtors voted for the populist far right. However, increased dissatisfaction with establishment parties may complement the role of a preference for debt relief, as distressed debtors lost faith in establishment parties providing a favorable resolution to the crisis. Rising inequality is unlikely to account for the electoral success of the far right, as income inequality was stable in the period around the crisis. We also present suggestive evidence against the hypothesis that debtor distress increased far-right support indirectly by boosting anti-immigrant attitudes.

Our main contribution is to provide causal evidence on how household financial distress can boost support for a populist political party. There is limited causal evidence directly connecting household financial distress, or financial crises more broadly, and support for populism or far-right parties. Using survey data from Poland, Ahlquist, Copelovitch, and Walter (2020) finds that distressed FC debtors were more likely to support a populist right-wing party that promised a generous debt resolution scheme. Frankel (2005) documents that political leaders in developing countries are nearly twice as likely

to lose office after devaluation, which he argues is due in part to the contractionary effects of devaluations through adverse balance sheet effects. Stock (1984) and Eichengreen et al. (2017) relate mortgage debt, mortgage interest rates, and foreclosures to agrarian unrest and populist support in the late 19th century United States. We complement these studies by combining administrative data with a natural experiment to estimate the impact of debtor distress on a sharp shift in political preferences.

Our paper connects with the broader literature analyzing the rise of populism in recent decades. Several studies emphasize that trade globalization has contributed to increased support for populist parties through the adverse labor market effects of import competition (Dippel, Gold, and Heblich (2015), Autor et al. (2016), Colantone and Stanig (2018)).⁵ We complement this literature by highlighting how *financial* globalization that leads to a financial crisis can boost support for populism. Another strand of research argues that a cultural backlash against progressive values, “distant” ruling elites, and convergence in establishment party policies play a more central role in the rise of populist parties, with economic factors being less central (e.g., Inglehart and Norris (2016), Mudde (2016)).⁶ Clearly, there is unlikely to be a single factor that explains the broad rise of populism in Western democracies—cultural and economic factors are both likely to play a role.

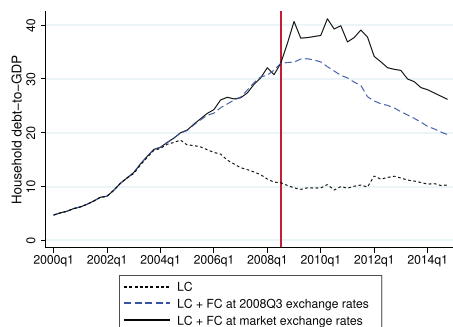
The remainder of the paper is structured as follows. Section I provides the background on the household FC debt crisis in Hungary and the political landscape. Section II outlines the data and empirical framework. Section III presents the main results, and Section IV explores the mechanisms. Section V concludes.

I. Context

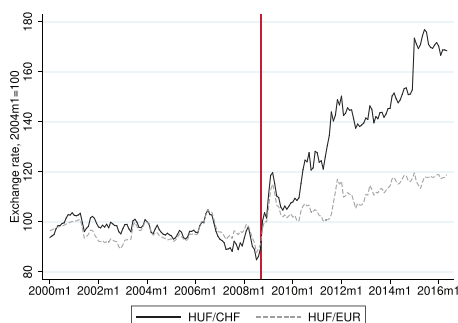
This section describes the Hungarian household credit boom in the 2000s and the political landscape. We also provide survey evidence on the characteristics of FC debtors and far-right voters.

⁵ Other studies explore the impact of economic trends and shocks such as fiscal austerity, job insecurity, and public finance mismanagement on the support for populism, including King et al. (2008), Jackman and Volpert (1996), Healy and Lenz (2017), Fetzer (2019), Galofré-Vilà et al. (2017), Guiso et al. (2017), Geishecker and Siedler (2011), and Daniele, Sartre, and Vertier (2018). Rodrik (2021) and Guriev and Papaioannou (2020) survey the literature on economic factors behind the rise of populism.

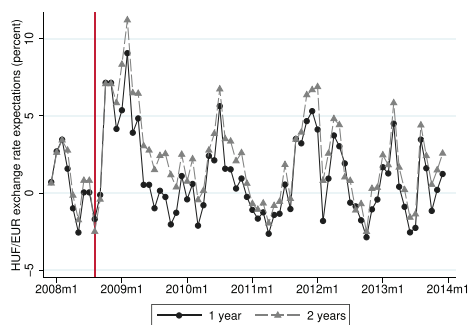
⁶ Although several papers examine the success of the far right in Hungary, we are the first to point to the household FC debt crisis as an important factor. With the exception of Grajczár and Tóth (2011), previous studies argue that noneconomic reasons explain the rise of Jobbik. Other studies argue that Jobbik gained support because of anti-Roma sentiment (Karácsony and Róna (2010)), ideological reasons (Rudas (2010)), concerns about corruption in mainstream parties (Bíró-Nagy and Róna (2013)), declining trust in democratic institutions (Krekó, Juhász, and Molnár (2011)), and anti-elite and anti-establishment attitudes (Kovács (2013)). Although Grajczár and Tóth (2011) emphasize far-right voters’ economic insecurity, they do not mention the FC debt crisis as a reason for increased economic hardship.



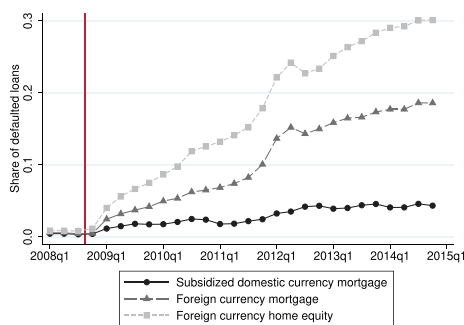
Panel (a) Household debt



Panel (b) Exchange rates



Panel (c) Exchange rate expectations



Panel (d) Default rate by currency

Figure 2. Household debt expansion, exchange rate dynamics, and household default rates. Panel (a) depicts household debt-to-GDP by currency denomination. The dashed blue line plots the counterfactual household debt-to-GDP ratio assuming the exchange rate had remained at its 2008Q3 value. Panel (b) shows the HUF/EUR and HUF/CHF exchange rates relative to January 2004. An increase in the exchange rate represents a depreciation of the Hungarian forint (HUF). Panel (c) plots the expected exchange rate depreciation based on Consensus Economics forecasts at one- (solid line) and two-year (dashed line) horizons. Positive values indicate an expected depreciation of the HUF. Panel (d) plots 90-day delinquency rates on housing loans by currency denomination and loan type. The vertical line represents September 2008, the month prior to the HUF depreciation. (Color figure can be viewed at wileyonlinelibrary.com)

A. Household Foreign Currency Lending Boom

Figure 2, Panel (a), shows the evolution of household debt-to-GDP by currency denomination. Household indebtedness was low at the end of the 1990s, but increased rapidly starting in 2000. The increase was initially driven by the introduction of a mortgage subsidy program in 2000. The subsidy significantly lowered the interest rates faced by households on LC loans, leading to increased borrowing in LC (Farkas, Hegedüs, and Székely (2004)).

Because of the high fiscal costs of the mortgage subsidy program, the government tightened eligibility rules and decreased the size of the LC interest subsidy in late 2003. As a result of the increase in interest rates on

domestic currency loans, foreign banks started to offer FC denominated loans with lower interest rates, which led to a boom in FC credit.⁷ The FC credit expansion raised household debt to 30% of GDP by September 2008 and led to an increase in the share of debt in FC from 5% in 2004 to 66% in September 2008. The most prevalent FC denomination was Swiss franc, which accounted for 97% of household FC debt at the start of the crisis. The remaining debt in FC was denominated mainly in euro.

Both demand and supply factors contributed to the expansion in FC lending. A crucial factor was the large interest rate differential between LC loans at market rates (but not at subsidized rates) and FC loans (Rosenberg and Tirpák (2008), Csajbók, Hudecz, and Tamási (2010)).⁸ The expectation of euro adoption also led borrowers to believe that mismatch would be temporary, at least with respect to the euro (Fidrmuc, Hake, and Stix (2013)). Moreover, banks seeking to match the currency composition of their assets and liabilities (Brown, Kirschenmann, and Ongena (2014)) and loose foreign monetary policy (Ongena, Schindele, and Vonnák (2021)) boosted the supply of FC credit.⁹

Figure 2, Panel (b), plots the dynamics of the Hungarian forint (HUF) exchange rate against the euro (EUR) and Swiss franc (CHF). During the credit expansion phase, the HUF was stabilized within a de facto ± 5 band against the EUR (Ilzetzki, Reinhart, and Rogoff (2019)). The EUR/CHF exchange rate (and, before the euro, the Deutsche mark–Swiss franc exchange rate) was also stable for decades. However, the exchange rate band was abandoned in February 2008, and the HUF depreciated substantially after the outbreak of the crisis in September 2008. Between September 2008 and the April 2010 election, the HUF depreciated by 23% against the CHF. The HUF then depreciated by another 30% between the 2010 and 2014 elections. The large depreciation was not anticipated by market participants. For example, Figure 2, Panel (c),

⁷ The major foreign-owned banks lending in FC to households included UniCredit and CIB (Italian), Raiffeisen and Erste (Austrian), K&H Bank (Belgian), and Budapest Bank (American-owned). FC lending to households was widespread in emerging market countries in Europe during the 2000s, especially in the new EU member states.

⁸ Swiss franc loans carried lower interest rates, both relative to loans in Hungarian forint and euro. Because the interest rate subsidy program applied only to mortgage loans, roughly half of mortgages were denominated in FC, whereas almost all home equity loans were in FC.

⁹ Although some warned about the risks of FC lending, no effective regulatory measures were taken to curb its growth before the crisis. The Central Bank of Hungary's Report on Financial Stability (Bank (2006)) was already discussing the risks associated with FC lending in 2006. In 2007, the central bank prevented further lending in Japanese yen, which was considered too risky, but lending in CHF and EUR continued. Following an austerity program implemented in 2006, there was limited political appetite for policies that would further restrict consumption such as broader macroprudential restrictions on FC borrowing. The governor of the Central Bank of Hungary from 2001 to 2007, Zsigmond Járαι, hinted at regulatory capture in the regulation of FC loans at a Parliamentary committee meeting investigating the causes of household FC borrowing: "My impression was that on the one hand [officials in the government and the Hungarian Financial Supervisory Authority] did not even understand the problem [of foreign currency lending]. Maybe they didn't want to understand. I don't know that they did not understand it intellectually, or they did not want to because of their other interests" (Járαι (2011)). FC lending to households was effectively banned only in 2010 (Banai, Király, and Nagy (2011)).

plots data from Consensus Economics, which reveal that experts forecasted that the HUF/EUR exchange rate would remain stable right before the outbreak of the crisis.

The increase in FC household debt burdens led to a significant deterioration of household balance sheets, as Hungarian households had limited income and assets in FC.¹⁰ The impact of the depreciation on debt service was reinforced by interest rate increases on unsubsidized loans, which mainly affected FC loans. Rising interest rates accounted for approximately 25% of the increase in debt service between 2008 and 2011 (Szigel and Fáykiss (2012)). Figure 2, Panel (d), shows that the depreciation translated into a rising share of nonperforming loans. Between 2008 and 2014, nonperforming FC mortgages increased from 0% to nearly 20%. In contrast, the increase was more modest for LC loans. Given the full recourse environment in Hungary, the rise in default rates implies that the shock led to a severe increase in financial distress for FC debtors.

B. Political Landscape and Definition of Populism

After the transition from a one-party system to a multiparty system in 1990, Hungary has held elections every four years. Political parties in Hungary are organized at the national level, so we focus on national elections to capture the change in political preferences. The national parliamentary election consists of a majoritarian part, where voters can vote for candidates, and a proportional part, where voters can vote for party lists. The majoritarian component of the election system may motivate supporters of smaller parties to cast votes strategically for candidates of larger parties. On the other hand, strategic voting behavior plays less of a role in voting decisions for party lists, so we focus on votes cast on party lists.

Our definition of populism is borrowed from the political science literature, which has converged on a generic definition of populism. Mudde (2007) and Mudde and Kaltwasser (2017) define populism as a “thin-centered ideology” that divides society into two antagonistic, homogenous groups: the “good people” versus the “corrupt elite.”¹¹ Populists claim to represent the interests of the people and the general will. Populism is thus characterized by anti-elitism and antipluralism. The group deemed to be against the people is

¹⁰ Backé, Ritzberger-Grünwald, and Stix (2007) document that less than 10% of households had FC holdings between 2002 and 2006, and the median positive holding was around 100 EUR. Moreover, the fraction of households working abroad earning income in FC was low before the crisis (Hárs (2016)).

¹¹ Similarly, Rodrik (2017) defines populism as those parties “which pursue an electoral strategy of emphasizing cleavages between an in-group and an out-group.” Note that this approach differs from an older literature in economics focused on populism in Latin America, which defines populism based on whether economic policies prioritize growth and redistribution over inflation and debt constraints (Dornbusch and Edwards (1992)). Guriev and Papaioannou (2020) provide an overview of various related definitions of populism and argue that the preferred definition is the generic definition from Mudde (2004) outlined above.

context-specific. In a debt crisis, the banking sector, financial elite, and foreign creditors can be ideal targets for populists.¹² Moreover, the mainstream political elite can be labeled corrupt and not representing the “good people” if they do not protect debtors from creditors.

In the period after the transition, there have been two significant far-right populist parties in Hungary: the *Movement for a Better Hungary* (Jobbik) and the *Hungarian Justice and Life Party* (MIÉP). Minkenberg (2013) reviews radical right-wing parties in Europe and classifies Jobbik and MIÉP as far right. Some observers have classified Jobbik as fascist, as it had a paramilitary wing, the Hungarian Guard, which was banned in 2009 (Bíró-Nagy, Boros, and Vasali (2013)). Both of these parties are also classified as populist (van Kessel (2015), Inglehart and Norris (2016)). For example, Jobbik has claimed to be the only party that genuinely stands up for the interests of the people (Batory (2010)). We thus consider a vote as far-right populist if it is cast for either Jobbik or MIÉP.

Although Jobbik was founded in 2003 and was a younger party than MIÉP, by 2010, it was the main party on the far right. In 2006, Jobbik ran jointly with MIÉP and obtained 2.2% of the votes. In 2010, they ran separately, and Jobbik received 16.67% of the votes, while MIÉP received only 0.03%.¹³ In its early years, the main features of Jobbik’s ideology were anti-communism, anti-Roma sentiment, and opposition to foreign capital. By the 2010 election, it contained a platform emphasizing nationalism, opposition to the “corrupt” establishment, an emphasis on law and order, and interventionist economic policy to protect society from the harmful effects of globalization (Bíró-Nagy and Rona (2013)).

We examine votes for Fidesz and other center-right parties separately from far-right populist parties. Before the 2010 election, Fidesz was generally not considered a populist party.¹⁴ For example, Mudde (2007) labels it an essentially conservative party, while Norris (2005) only mentions MIÉP in an analysis of radical-right parties. However, Jobbik’s success in 2010 might have influenced Fidesz’s policies by dividing the right-wing vote, leading Fidesz to move from conservatism toward right-wing populism after the 2010 election

¹² As a “thin ideology,” populism has both right- and left-wing manifestations. Left-wing populism typically defines the people based on economic class, while right-wing populism is characterized by exclusionary nativism or ethno-nationalism (Ivaldi, Lanzone, and Woods (2017)). While right-wing populism is more pro-market than left-wing populism, right-wing populist parties are generally proponents of “economic nationalist” platforms and are often critical of globalization and international financial institutions (Funke, Schularick, and Trebesch (2020)).

¹³ Internet Appendix Table IA.X reports estimates of the effect of FC debt exposure on voting for Jobbik and MIÉP separately and finds that our results are driven by votes for Jobbik. Bíró-Nagy and Rona (2013) argue that MIÉP was less successful than Jobbik because “MIÉP’s policy was too one-sided... the party based its strategy exclusively on conspiracy [*sic*] theories and open anti-Semitism,” while “the politicians of Jobbik... were receptive to more themes.” MIÉP was seen as a declining far-right party, focused solely on anti-communism and anti-Semitism, while Jobbik was a younger, more dynamic movement that was able to grow support from a broader agenda.

¹⁴ More recent studies classify Fidesz as populist (van Kessel (2015), Inglehart and Norris (2016), Mudde and Kaltwasser (2017), Rodrik (2017)).

Table I
Election Results and Turnout

This table reports vote shares received on party lists in parliamentary elections from 1998 to 2018 and turnout in each election.

Election Year	Far Right	Center Right	Center Left	Far Left	Green	Turnout
1998	5.47	47.74	40.49	4.08	—	56.26
2002	4.37	41.82	47.62	2.16	—	70.53
2006	2.20	42.03	49.71	0.41	—	67.83
2010	16.67	52.73	19.30	0.11	7.48	64.38
2014	20.69	43.55	26.21	0.57	5.47	61.24
2018	19.80	47.36	17.95	0.28	7.31	70.22

(Inglehart and Norris (2016)). Fidesz adopted Jobbik's position on debt relief for FC debtors and also copied several other policies first proposed by Jobbik (Bíró-Nagy, Boros, and Vasali (2013), Juhász et al. (2017)).¹⁵

We classify the remaining parties as follows. Votes for the Christian Democrats (KDNP), the Hungarian Democratic Forum (MDF), and the Independent Smallholders, Agrarian Workers, and Civic Party (FKgP) are grouped together with Fidesz under the heading "center right." The Socialist Party (MSZP), Alliance of Free Democrats (SZDSZ), Together (Együtt), Conversation for Hungary (PM), and Democratic Coalition (DK) are grouped as "center left." We also examine the vote share of the green party, Politics Can Be Different (LMP), which participated in 2010 and subsequent elections.

Table I summarizes the aggregate vote shares for these political blocs in parliamentary elections from 1998 to 2018. The center right, led by Fidesz, won the 1998, 2010, 2014, and 2018 elections, while the center left won the 2002 and 2006 elections. After the crisis, the populist far right surged in votes, becoming the third largest party in parliament, largely at the expense of the center-left Socialist Party, and the green party emerged. The far-left communist Workers' Party remained marginal throughout the posttransition period, reflecting the widespread distrust of the communist party following decades of communist rule.

C. Descriptive Statistics on Foreign Currency Debtors and Far-Right Voters

What are the characteristics of FC debtors and far-right voters? We draw on two separate surveys to provide descriptive statistics on these groups. The first survey is the Austrian National Bank's (OeNB) Euro Survey, which contains detailed information on Hungarian households' balance sheets, including the currency denomination of their debts. The second is the February 2010 Tárki

¹⁵ Juhász et al. (2017) and Bíró-Nagy, Boros, and Vasali (2013) list several policies that were first proposed by Jobbik and later implemented by Fidesz. These include: building a fence on the southern border of Hungary, restrictions on Sunday shopping, nuclear power plant expansion, public works program for the unemployed, harsher criminal sentencing, nationalizing private pension funds, and explicitly mentioning Christianity in the new constitution.

Table II
Observable Characteristics of Foreign Currency Borrowers in Survey Data

This table shows the average characteristics of local currency borrowers, foreign currency borrowers, and individuals without a loan. The data come from the Austrian Central Bank’s Euro Survey Project. We pool together waves of the survey between 2007 and 2011. FC borrowers are individuals who report having a FC loan. LC borrowers are individuals who report having only LC debt. *, **, and *** indicate significant differences in means at the 0.1, 0.05, and 0.01 levels, respectively.

	FC mean/sd	LC mean/sd	Nonborr. mean/sd	FC-LC Difference b/t	Borr.-nonborr. Difference b/t
Primary education	0.13 (0.33)	0.20 (0.40)	0.28 (0.45)	−0.07*** (−4.76)	−0.12*** (−13.31)
High school or vocational	0.67 (0.47)	0.63 (0.48)	0.57 (0.50)	0.04** (2.01)	0.09*** (7.79)
College education	0.20 (0.40)	0.17 (0.38)	0.16 (0.36)	0.03** (2.09)	0.03*** (3.82)
Low income	0.24 (0.43)	0.31 (0.46)	0.37 (0.48)	−0.07*** (−4.05)	−0.10*** (−9.38)
Medium income	0.26 (0.44)	0.30 (0.46)	0.25 (0.43)	−0.03 (−1.88)	0.03** (2.42)
High income	0.32 (0.47)	0.26 (0.44)	0.19 (0.40)	0.07*** (3.68)	0.10*** (9.81)
Age	41.77 (11.44)	43.21 (12.95)	50.11 (18.10)	−1.44*** (−2.93)	−7.77*** (−22.77)
Have children	0.49 (0.50)	0.41 (0.49)	0.21 (0.40)	0.08*** (3.81)	0.25*** (22.63)
Size of household	3.10 (1.22)	2.86 (1.24)	2.39 (1.23)	0.24*** (4.95)	0.61*** (20.94)
Employed	0.69 (0.46)	0.61 (0.49)	0.42 (0.49)	0.08*** (4.46)	0.24*** (21.09)
Retired	0.13 (0.34)	0.20 (0.40)	0.39 (0.49)	−0.06*** (−4.16)	−0.24*** (−24.14)
Self-employed	0.05 (0.22)	0.04 (0.19)	0.03 (0.17)	0.01 (1.72)	0.02*** (3.60)
Able to save money	0.12 (0.32)	0.12 (0.33)	0.14 (0.35)	−0.00 (−0.21)	−0.03** (−2.51)
Settlement size <5,000	0.32 (0.47)	0.33 (0.47)	0.29 (0.46)	−0.00 (−0.14)	0.03*** (2.75)
Settlement size 5,000 to 100,000	0.46 (0.50)	0.42 (0.49)	0.40 (0.49)	0.04** (2.15)	0.05*** (4.06)
Settlement size >100,000	0.22 (0.41)	0.26 (0.44)	0.31 (0.46)	−0.04** (−2.34)	−0.08*** (−7.53)
Observations	1,569	1,061	5,389	2,630	8,019

Household Monitor, which contains information on political preferences and a proxy for loan currency denomination. The OeNB Euro Survey is a more reliable source of information on household balance sheets, but it does not contain information on political preferences.

Foreign currency debtors: Table II uses the OeNB Euro Survey data to compare

FC debtors, LC debtors, and individuals without a loan. FC debtors are defined as borrowers who have some FC debt. LC debtors are defined as borrowers who only have LC debt.

Table II reveals that FC debtors have higher education, income, and employment rates compared to LC debtors, though the differences are relatively small (columns (1) and (2)). In addition, FC borrowers are younger than LC borrowers, consistent with the later start of FC lending, and are more likely to live in smaller cities. These patterns are consistent with existing studies on household FC borrowing in emerging European countries, which find that FC and LC debtors are reasonably similar (Pellényi and Bilek (2009), Beer, Ongena, and Peter (2010)).¹⁶ In contrast to the differences between LC and FC borrowers, the differences between borrowers and nonborrowers in column (5) are more pronounced. This indicates that the credit boom was not concentrated among low-income individuals.

Far-right populist voters: Table III examines the characteristics of far-right supporters before the 2010 election using the Tárki Household Monitor. Far-right supporters are more likely to have a vocational degree but are slightly less likely to have a college degree. Far-right voters have similar levels of household income in 2009 but are more likely to be employed. Interestingly, far-right supporters are *more* likely to have a bank loan in FC, but not in LC, relative to supporters of other parties. This implies that far-right voters are more likely to be exposed to the exchange rate shock through their debt positions. These patterns provide suggestive evidence that financial distress may have led debtors to vote for the far right. The next section lays out an empirical strategy based on administrative data and actual voting behavior at the zip code level to more systematically evaluate this hypothesis.

II. Data and Empirical Strategy

A. Data

We build a new zip-code-level data set with information on election results, household debt by currency, and local characteristics. There are 3,475 zip codes in our data set with an average of 2,312 eligible voters per zip code.

Election Data: We use zip-code-level parliamentary election results from the National Election Office for elections between 1998 and 2018. We aggregate polling station data to the zip code level (see Internet Appendix Section II for details).¹⁷ The data contain the number of votes cast on party lists, turnout, and the number of invalid votes. Our primary focus is on the 2010 election, as the election system changed significantly in 2011. This reform affected the

¹⁶ The OeNB Euro Survey results are also consistent with the average characteristics of FC debtors, LC debtors, and nonborrowers in the February 2010 Tárki Monitor, as shown in Internet Appendix Table IA.I.

¹⁷ The Internet Appendix is available in the online version of this article on *The Journal of Finance* website.

Table III
Characteristics of Far-Right Voters in Survey Data

This table shows the average characteristics of far-right voters and voters for other blocs in the February 2010 Tárki Monitor survey. FC borrowers are individuals who report having positive loan payments in FC. LC borrowers are individuals who report having positive loan payments but zero FC loan payments.

	Far Right mean/ <i>sd</i>	Center Right mean/ <i>sd</i>	Center Left mean/ <i>sd</i>	Other mean/ <i>sd</i>
Primary educ.	0.21 (0.41)	0.31 (0.46)	0.25 (0.43)	0.17 (0.38)
Vocational educ.	0.45 (0.50)	0.29 (0.46)	0.32 (0.47)	0.27 (0.45)
High school	0.27 (0.44)	0.27 (0.44)	0.31 (0.46)	0.36 (0.48)
College	0.07 (0.26)	0.12 (0.33)	0.13 (0.33)	0.20 (0.41)
HH income in 2009 (in 1000 HUF)	2,408.51 (1,167.16)	2,410.09 (1,284.35)	2,496.71 (1,356.15)	2,718.35 (1,446.71)
Employed	0.54 (0.50)	0.45 (0.50)	0.34 (0.48)	0.49 (0.50)
Retired/student	0.35 (0.48)	0.43 (0.50)	0.59 (0.49)	0.37 (0.49)
HH size	3.14 (1.46)	2.98 (1.59)	2.64 (1.36)	2.92 (1.28)
Loan	0.51 (0.50)	0.40 (0.49)	0.37 (0.48)	0.49 (0.50)
FC loan	0.30 (0.46)	0.22 (0.41)	0.16 (0.36)	0.23 (0.42)
LC loan	0.21 (0.41)	0.18 (0.38)	0.22 (0.41)	0.27 (0.45)
Observations	191	1,197	359	86

relative importance of the proportional and majoritarian components, the rules for campaigning, and electoral district boundaries. As these changes may have affected voter behavior, we exclude 2014 and 2018 from our baseline sample, but we report results for those elections in subsequent analysis. To proxy for attitudes toward immigration, we also use zip-code-level data on the 2016 referendum on EU migrant quotas.

Household Credit Registry Data: Data on household debt by currency are from the Household Register of the Central Credit Information System (KHR). These data contain the universe of household loans that were outstanding or originated after April 2012, as well as loans that were terminated by April 2012 but defaulted in the previous five years. The previous version of KHR contained only loans in default and is available from 2010. The KHR data contain information on loan type, month of origination, originated amount, currency

denomination, monthly payments and balances, default status, borrower address, and identity of the bank.¹⁸

We reconstruct the data for the pre-2012 period using the detailed loan characteristics provided in KHR. Since data collection started in 2012, there is no information on household indebtedness for the preceding period (beyond the originated amount). To reconstruct the data at the loan level, we assume an annuity payment structure and complement the credit registry data with bank-month-currency-loan-type specific average interest rate data.¹⁹ This allows us to calculate the outstanding debt and payment for each loan in each month from origination until 2012. We validate our approach by comparing the predicted and actual principal in 2012 and find that the two match closely. We also find that aggregate default rates in the credit registry closely match default rates reported from bank balance sheets, indicating that the credit registry provides an accurate picture of credit risk (see [Internet Appendix Section II](#)).

The reconstructed credit registry covers 80.5% of housing debt in aggregate financial accounts. Loans that were terminated before April 2012 are missing from the credit registry. This affects two types of loans. First, loans that were originated early in the boom and loans with shorter maturity are more likely to be missing. We restrict the baseline sample to mortgage and home equity loans because these have longer maturities, and they also represent the majority of household debt. Second, the Early Repayment Program (ERP) initiated by the government at the end of 2011 enabled households with FC mortgage and home equity loans to prepay their loans. Participating loans are missing from the credit registry, as they were repaid before the start of data collection. The aggregate participation rate in the program was 23% of all FC housing debt.

We address the problem of missing loans using three approaches. Our baseline approach is to allocate the missing loans proportionately with observed loans. We multiply household debt and the number of loans in a zip code by the ratio between the aggregate statistics and the aggregated credit registry data for each currency denomination.

The second approach estimates participation in the ERP using a shift-share approach. We use a separate data set maintained by the Central Bank of Hungary with the universe of loans for three major banks with a combined lending market share of 24%. We then assume that the participation rate in each zip code for loans issued by another bank b is the participation for these three major banks times the ratio between the aggregate participation rate for bank b (which was reported by all banks) and the three banks. Because this method allocates missing loans reasonably smoothly across zip codes and the quantity of missing loans is modest compared to observed loans, our results are highly robust to this adjustment.

¹⁸ Borrowers' zip-code-level address is available for loans outstanding in June 2014. Because some loans were paid back by this time, we do not have address data for all loans. If a borrower has other loans outstanding after June 2014, we use that address information.

¹⁹ Aggregate statistics show that more than 90% of the domestic currency mortgage loans were subsidized. Thus, for domestic currency mortgages, we use the subsidized interest rates to calculate payments and debt balances.

As a third approach, we proxy for zip code participation in the ERP using the volume of new LC borrowing during the ERP window (October 2011 to February 2012). This period saw a spike in LC borrowing to take advantage of the ERP and refinance into an LC loan. Our estimates are also robust to using this adjustment. Further details on these latter two approaches are provided in [Internet Appendix Section II](#).

Other Data Sources: We use several other administrative data sources for control variables. The T-Star database contains yearly settlement (municipality) data on a wide range of characteristics, such as demographics, unemployment, and income. We also use data from the 2011 census, which contains settlement-level information on educational attainment and ethnic composition. There are 3,152 settlements in Hungary, so the settlement-level control variables are at a coarser level of aggregation than the zip-code-level variables.²⁰ We also use Hungarian Corporate Income Tax Data, matched with KHR's firm credit registry, to measure settlement-level employment shares by sector and the share of firms with FC debt exposure before the crisis.

Summary Statistics: Table IV presents descriptive statistics for our zip-code-level data. Zip codes are weighted by the number of eligible voters in 2006. The average FC loan share was 63% in September 2008, and the average FC debt revaluation by 2010 relative to disposable 2008 income is 8.7 percentage points. The mean far-right vote share in the 2010 election was 15%, almost equal to the average vote share of the incumbent center left.

B. Measuring Exposure to the Depreciation

Our baseline measure of zip-code-level exposure to the FC debt revaluation shock is the share of FC loans in total housing loans at the start of the crisis,

$$FCS_i = \frac{N_{FC,i}}{N_{LC,i} + N_{FC,i}},$$

where $N_{FC,i}$ is the number of FC loans in zip code i in September 2008 and $N_{LC,i}$ is the number of LC loans.²¹ While we also present results for other measures of exposure, the FC share is appealing because it allows us to hold total household debt fixed and use variation only in the currency composition of debt. Our baseline FC share measure is calculated using the number of loans rather than outstanding debt, as each borrower has one vote, so the amount of debt is not necessarily as important. However, results are very similar when using the amount of outstanding debt. Figure 3 shows the zip-code-level map of FCS . The coloring corresponds to the deciles of FCS . Borrowing in FC was

²⁰ Typically settlements have only one zip code, but some settlements that constitute larger cities have multiple zip codes.

²¹ Since 97% of FC debt was denominated in Swiss franc, abstracting from the variation in foreign currencies does not affect our results.

Table IV
Zip-Code-Level Descriptive Statistics

This table presents descriptive statistics for the main zip-code-level variables used in the analysis. Observations are weighted by the number of eligible voters in 2006.

Main Variables	<i>N</i>	Mean	<i>SD</i>	p10	p90
FC share, <i>FCS</i>	3,475	0.63	0.089	0.52	0.73
FC debt share	3,475	0.66	0.094	0.54	0.77
FC loans per capita	3,475	0.057	0.019	0.035	0.079
LC loans per capita	3,475	0.035	0.015	0.019	0.05
Debt revaluation to income	3,475	0.087	0.032	0.052	0.13
Control Variables	<i>N</i>	Mean	<i>SD</i>	p10	p90
Debt-to-income	3,475	0.59	0.21	0.36	0.86
Per-capita number of loans, 2008	3,475	0.089	0.03	0.054	0.12
Vocational share	3,475	0.2	0.055	0.12	0.26
High school share	3,475	0.27	0.068	0.17	0.35
College share	3,475	0.15	0.095	0.053	0.27
Log per-capita income	3,475	7.7	2.1	6.2	12
Log number of eligible voters, 2006	3,475	9.4	1.8	6.9	12
Unemployment rate, 2007	3,475	0.073	0.058	0.023	0.15
Share of people age 18 to 29	3,475	0.16	0.014	0.15	0.18
Share of people age 59+	3,475	0.22	0.033	0.18	0.25
Dependent Variables	<i>N</i>	Mean	<i>SD</i>	p10	p90
Vote share, far right, 2010	3,475	15	7.3	8	26
Vote share, center right, 2010	3,475	50	13	31	65
Vote share, center left, 2010	3,475	17	6.4	8.9	26
Vote share, far left, 2010	3,475	0.11	0.4	0	0.28
Turnout, 2010	3,475	64	6.1	56	72

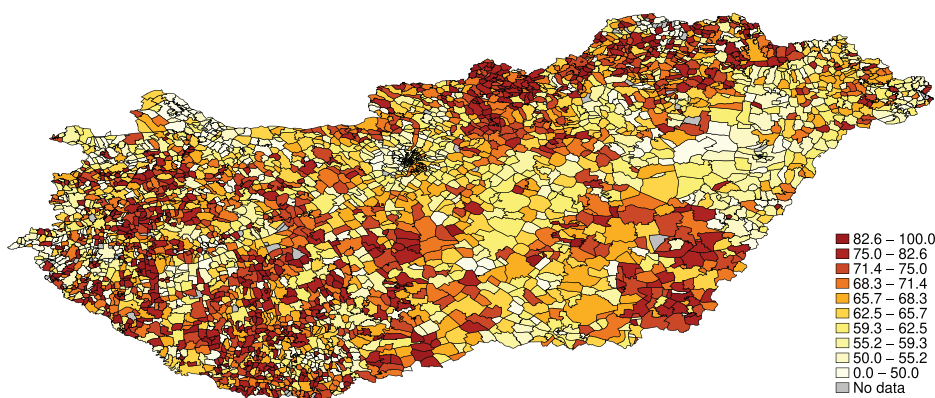


Figure 3. Share of foreign currency loans in September 2008. This figure shows a zip-code-level map of the share of foreign currency denominated mortgage and home equity loans in September 2008, *FCS*. The shading represents the deciles of the foreign currency loan share. (Color figure can be viewed at wileyonlinelibrary.com)

Table V
Correlates of the Zip-Code-Level Foreign Currency Loan Share

Each row in this table reports a bivariate regression in which the dependent variable is foreign currency share of loans in September 2008 and the independent variable is listed in the first column. The regressions are weighted by the number of eligible voters in 2006. Standard errors are clustered at the subregion level (175 units). *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively.

	Coefficient	Standard Error	N	R ²
Debt to income, 2008	−0.063***	0.0099	3,475	0.040
Per capita number of loans, 2008	−0.083	0.130	3,475	0.002
Vocational share	0.59***	0.047	3,475	0.140
High school share	−0.38***	0.044	3,475	0.084
College share	−0.42***	0.045	3,475	0.200
Log per capita income, 2007	−0.011***	0.002	3,475	0.063
Log number of eligible voters, 2006	−0.013***	0.002	3,475	0.073
Unemployment, 2007	0.42***	0.067	3,475	0.076
Share of population age 18 to 29	0.84***	0.330	3,475	0.017
Share of population age 59+	0.15	0.210	3,475	0.003
Employment share of exporters, 2007	−0.068***	0.015	3,475	0.025
Employment share of manufacturing, 2007	0.012	0.021	3,475	0.001
Employment share of firms with FC debt, 2007	0.0095	0.014	3,475	0.000
Corporate foreign currency share of debt	−0.056***	0.018	2,867	0.023

widespread, and, even in the lowest deciles of exposure, nearly half of all loans were denominated in FC.

Variation in household FC debt exposure stems mainly from the timing of borrowing. Households who borrowed in the first phase of the credit boom have subsidized LC loans, while the majority of households who borrowed after 2003 have FC loans. Though foreign banks were already present in Hungary in the 1990s, they focused on the corporate sector, with domestic banks serving the retail market. The LC credit boom was thus more pronounced in regions with higher branch density of domestic banks. With the cutback of the government subsidy program, foreign banks expanded their branch network to attract retail customers (see Figure IA.1), and offered FC loans in previously underserved regions.

What is the correlation between zip-code-level household FC debt exposure and other zip code characteristics? Table V presents results from regressions of FCS_i on zip-code-level characteristics. Each row represents one bivariate regression. The estimates are weighted by the number of eligible voters in 2006, and the standard errors are clustered at the subregion level (175 regions).

Zip codes with a high share of FC loans tend to have lower population, lower income, higher vocational share, lower college share, and higher precrisis unemployment. At the same time, the per-capita number of loans is not related to FC exposure, while debt-to-income is negatively correlated with FCS . The differences for most variables are small, and R^2 values are generally also small,

with the exception of the education shares. Our main estimation strategy controls for these observables to ensure that the results are not driven by a differential composition of observables in exposed areas.

C. Empirical Specification

Our empirical specification examines whether the populist far-right vote share increased more following the exchange rate depreciation in zip codes with higher exposure to household FC debt,

$$FarRightShare_{it} = \beta FCS_i \times Post_t + \alpha_i + \delta_t + \eta_{ct} + \gamma X_{it} + u_{it}, \quad (1)$$

where $FarRightShare_{it}$ is the vote share of the populist far right in zip code i and election year t , FCS_i is the share of FC loans in September 2008 in zip code i , $Post_t$ is a post-2008 dummy that equals 1 after 2008 and 0 otherwise, and α_i and δ_t are zip-code and election-year fixed effects, respectively. We also control for county-by-election-year fixed effects, η_{ct} . There are 20 counties in Hungary, and these county-year fixed effects control for time-varying, unobservable shocks to political preferences across larger regions. The parameter of interest is β , which measures the effect of FC debt exposure on the far-right vote share.

The control variables in X_{it} are precrisis zip code characteristics interacted with election-year dummy variables. Specifically, the control variables are log population in the settlement (municipality), the share of the population age 18 to 29 and age 60+, log after-tax income per capita, unemployment relative to working-age population in 2007, education shares, per capita number of loans, and debt-to-income. Controlling for the number of loans and household debt-to-income implies that we are comparing two zip codes with the same pre-depreciation debt level, which allows us to use variation only in the currency composition of household loans.

The key identifying assumption for consistent estimation of β is that there are no time-varying, zip-code-level shocks to political preferences that are correlated with household FC debt exposure, conditional on (X_{it}, η_{ct}) . The regressions are weighted by the number of eligible voters in 2006. We estimate robust standard errors clustered at the subregion level (175 regions). Given that our estimation uses nearly 3,500 zip codes, clustering at 175 subregions is conservative. We can reject at traditional significance levels that a coarser level of clustering is appropriate using the test proposed by Ibragimov and Müller (2016).

III. Results

A. Main Result

Figure 4 summarizes our main result. We plot binned bivariate means of the change in the populist far-right vote share from 2006 to 2010 against the household FC loan share. Both variables are measured at the zip code level. Zip

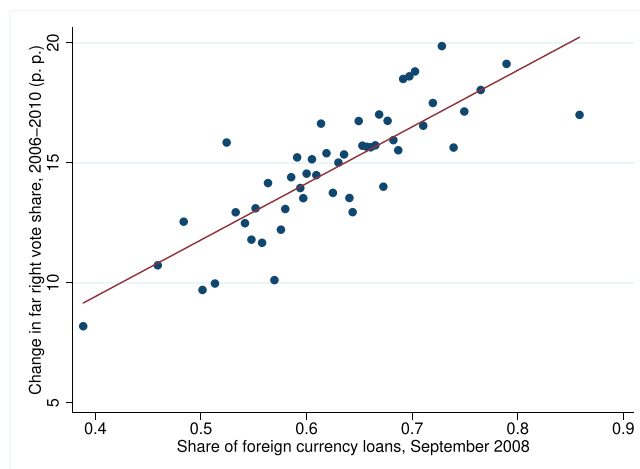


Figure 4. Foreign currency loan exposure and the rise in the populist far-right vote share. This figure shows binned bivariate means of the zip-code-level household FC loan share in September 2008 and the change in the zip-code-level far-right vote share from 2006 to 2010. (Color figure can be viewed at wileyonlinelibrary.com)

codes with a higher share of FC loans see a stronger increase in the far-right vote share. The relation is strong and linear, which supports the assumption of linearity in equation (1).

The baseline results from estimation of (1) are presented in Table VI. The specifications are estimated using election years from 1998 to 2010. The first column in Table VI shows the point estimate controlling for zip code fixed effects, county-election fixed effects, and education shares. Controlling for education shares is important, as education is a strong predictor of far-right populist support. The point estimate on the household FC debt share is positive and highly significant. The estimate implies that moving from a zip code where all debt is in LC to a zip code where all debt is in FC increases the far right vote share by 5.2 percentage points. The estimates on the education share variables are also interesting. Areas with a higher vocational education share see a larger increase in far-right support, whereas areas with a higher share of college-educated individuals see a smaller increase in the far-right share.

Our preferred specification is reported in column (2) of Table VI. This specification adds our additional baseline control variables, including precrisis household debt-to-income, income, and unemployment rate. The estimate with this specification is 4.4. Once we control for educational attainment, the coefficient is reasonably stable to additional controls. To the extent that unobserved selection is correlated with these covariates, this suggests that controlling for educational attainment accounts for most potential omitted variable bias (Altonji, Elder, and Taber (2005)).

In column (3), we include 175 subregion fixed effects interacted with election-year fixed effects. This provides a tighter specification that controls for

Table VI
Effect of Household Foreign Currency Exposure on the Populist Far-Right Vote Share

This table presents regression estimates of equation (1) at the zip code level using election years from 1998 to 2010. *Pbst* is a variable that equals 1 in the 2010 election and 0 in previous elections. *FCshare* is the share of FC loans in total housing loans in a zip code. Unreported controls are the number of loans in 2008 per eligible number of voters, debt-to-income in September 2008, and log settlement population (all interacted with *Pbst*). Regressions are weighted by the number of eligible voters in 2006. Standard errors are clustered at the subregion level. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively.

	(1)	(2)	(3)	(4)
FC share \times Post	5.171*** (1.279)	4.397*** (1.174)	4.187*** (1.079)	4.567*** (1.372)
Vocational share \times Post	24.48*** (6.160)	16.78*** (6.177)	19.72*** (5.217)	13.59** (6.612)
High school share \times Post	4.003 (4.693)	-15.10*** (5.273)	-1.702 (3.141)	-12.86** (5.814)
College share \times Post	-23.08*** (6.122)	-28.30*** (6.023)	-19.80*** (2.412)	-21.99*** (5.925)
Log income, 07 \times Post		-0.258 (0.208)	0.0199 (0.222)	-0.312 (0.228)
Unemp. rate, 07 \times Post		-19.02*** (5.099)	-16.65*** (4.876)	-16.79*** (5.903)
Young share, 07 \times Post		15.08* (8.965)	7.113 (7.664)	15.47 (11.08)
Old share, 07 \times Post		-10.21** (4.009)	-20.96*** (4.250)	-9.331** (4.636)
Election FE	✓	✓	✓	✓
Zip code FE	✓	✓	✓	✓
County-election FE	✓	✓		✓
Controls		✓		✓
Subregion-election FE			✓	
Zip code linear trend				✓
R^2	0.910	0.913	0.933	0.969
Observations	13,900	13,900	13,900	13,900

unobserved shocks at a level of aggregation that approximately corresponds to local labor markets (Pálóczi et al. (2016)). Subregion-time fixed effects also account for subregional differences, such as cultural or economic differences, which may be correlated with shocks to far-right support. The estimate in column (3) is essentially unchanged with this control, which shows that our results hold using variation in exposure to FC debt *within* local labor markets. Column (4) shows that the effect of FC debt exposure is also robust to the inclusion of zip-code-specific linear time trends.

Interpretation of the Magnitudes: The estimate from our preferred specification in Table VI, column (2), is economically meaningful, in addition to statistically significant. Moving from zero to full FC debt share exposure

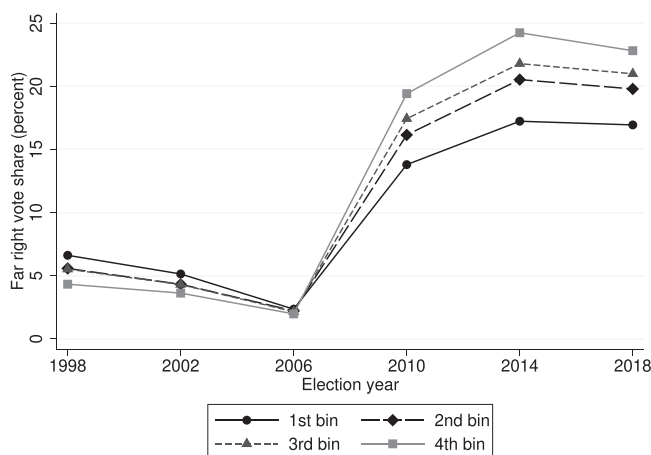


Figure 5. Evolution of the populist far-right vote share across quartiles of foreign currency debt exposure. This figure presents the average far-right vote share in each quartile of FC debt exposure. Far-right vote shares are from parliamentary elections from 1998 to 2018. Specifically, we sort zip codes into four equal population bins by the FC loan share, FCS_i , and compute the average far-right vote share in each bin for parliamentary elections from 1998 to 2018.

implies an increase in debt relative to precrisis income of 14.9 percentage points. The FCS estimate in column (2) thus implies that a 10 percentage point increase in debt-to-income increases the far-right share by 3.0 percentage points ($10 \times 4.4/14.9$). Since the average FC debt share is 63%, FC debt exposure explains approximately 2.8 percentage points (0.63×4.4) of the 14 percentage points increase of far-right vote share between 2006 and 2010, or 20% of the increase. According to this partial equilibrium estimate, FC debt exposure led to 142 thousand additional far-right votes in the 2010 election (2.8% of 5.1 million voters). This effect is economically significant, given that there were approximately 740 thousand FC housing loans outstanding in 2008.

Impact of Foreign Currency Debt Exposure over Time: In Figure 5, we split zip codes into four equal population quartiles by FCS_i and plot the unconditional average populist far-right vote share in each election separately by quartile. The figure shows that the levels of far-right support were similar in high- and low-exposure zip codes in elections between 1998 and 2006, which indicates that high FCS areas did not have a higher initial predisposition for far-right support. The absence of differential changes in the far-right share prior to 2010 supports the parallel trends assumption. Starting in the 2010 election, high-exposure areas then see a sharper rise in the far-right vote share. Zip codes in the highest quartile of exposure saw an increase in the far-right vote share from 2.0% in 2006 to 19.4% in 2010. Meanwhile, the far-right vote share in the lowest quartile rose from 2.4% in 2006 to 13.7% in 2010.

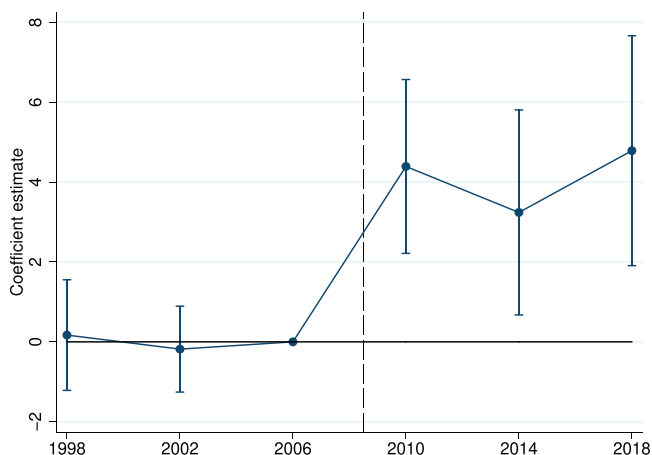


Figure 6. Effect of foreign currency debt exposure on the populist far-right vote share. This figure shows the dynamic effect of the zip code FC share on the far-right vote share for parliamentary elections from 1998 to 2018. The figure plots the sequence of estimates $\{\hat{\beta}_y\}$ from estimating (2). Error bars represent 95% confidence intervals from standard errors clustered at the subregion level (175 units). (Color figure can be viewed at wileyonlinelibrary.com)

Figure 6 examines the impact of FC debt exposure on the far-right share over time more formally. The figure plots estimates of $\{\beta_j\}$ from

$$FarRightShare_{it} = \sum_{j \neq 2006} \beta_j FCS_i \times \mathbf{1}[j = t] + \alpha_i + \delta_t + \eta_{ct} + \gamma X_{it} + \epsilon_{it}, \quad (2)$$

where $\mathbf{1}[j = t]$ is a dummy variable that equals 1 in year t and 0 otherwise. Year 2006 is the reference election year.

Figure 6 shows that the estimates for the precrisis period are close to zero and insignificant. The far-right vote share then increases sharply in more exposed zip codes after the depreciation starting in 2008, and the effect persists through the 2014 and 2018 elections. Financial distress experienced by debtors in the crisis thus has a persistent impact on political preferences. One explanation for the persistence may be that the act of voting for a candidate or party leads to a more favorable opinion of that candidate or party in the future, as suggested by Mullainathan and Washington (2009). Colantone and Stanig (2018) find a similar persistent shift in support for populist parties following import competition shocks.

B. Robustness

B.1. Alternative Specifications

Table VII shows that estimating (1) using alternative definitions of household FC debt exposure yield similar results as our baseline FCS measure. Column (1) shows that the point estimate is similar when we use the share of

Table VII
Household Foreign Currency Exposure on the Populist Far-Right Vote Share: Robustness to Alternative Specifications

This table shows the results of zip-code-level regression in which the dependent variable is the share of far-right votes. Controls include the number of loans in 2008 per eligible number of voters, debt-to-income in September 2008, per-capita income in 2008, education shares, age shares, and log settlement population. Column (2) excludes debt-to-income and the per-capita number of loans controls, as this specification measures the effect of adding one extra FC loan per capita. All controls are interacted with election-year fixed effects. Regressions are weighted by the number of eligible voters in 2006. Standard errors are clustered at the subregion level (175 units). *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively.

	OLS		PS-Matched Sample	ERP Adjustment: 3-Banks	ERP adjustment: Refinance	
	(1)	(2)	(3)	(4)	(5)	(6)
FC debt share \times Post	3.65*** (1.07)					
FC loans per capita \times Post		15.19*** (4.33)				
LC loans per capita \times Post		-19.34*** (6.18)				
Debt reval. to income \times Post			15.99** (6.89)			
FC share \times Post				5.44*** (1.36)	3.46*** (1.21)	4.04*** (1.35)
Election FE	✓	✓	✓	✓	✓	✓
Zip code FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
County-election FE	✓	✓	✓	✓	✓	✓
R^2	0.913	0.913	0.913	0.913	0.913	0.913
Observations	13,900	13,956	13,956	9,676	13,828	13,908

FC-denominated *debt* instead of the share of loans in FC. In column (2), we use the number of FC loans per capita as the measure of exposure. We also control for the fraction of LC loans per capita. The point estimate on the number of FC loans per capita implies that increasing the FC loan penetration in a zip code by 10 percentage points leads to a 1.52 percentage point increase in the far-right vote share. In contrast, the coefficient on the number of LC loans per capita suggests that LC borrowers were less likely to vote for the far right. LC debtors were less exposed to personal financial distress, and far-right debtor-friendly proposals primarily targeted FC debtors, as we discuss in Section IV.

Column (3) in Table VII uses the change in debt induced by the depreciation relative to precrisis household income as the measure of debtors' financial distress. Specifically, we compute the difference between debt burdens in April 2010 at market exchange rates and the counterfactual debt level if the exchange rate had remained at its precrisis level. The estimate implies that an unexpected 10 percentage point increase in household debt-to-income leads to a 1.6 percentage point increase in the far-right vote share. In contrast to the *FCS* measure, this debt revaluation measure is uncorrelated with education and negatively correlated with local precrisis unemployment (see Internet Appendix Table IA.II). Thus, this measure provides another useful way to ensure that our results are not driven by lower education in high-*FCS* areas.

As some zip code observable characteristics are correlated with FC debt exposure, we verify that our findings are not sensitive to limited overlap in the covariate distributions of more exposed and less exposed zip codes. To do so, we split zip codes into treatment and control groups based on whether *FCS* is above or below the median. Using our baseline controls, we then estimate the propensity score and keep only treated zip codes in which the propensity score distance to the nearest control zip code is sufficiently low. Table IA.III confirms that high- and low-*FCS* zip codes in this matched sample are similar in terms of observable covariates. In particular, the Imbens and Wooldridge (2009) normalized difference statistics are generally low, indicating that high- and low-*FCS* samples are well balanced. Column (4) presents results from reestimating (1) on the propensity-score matched sample. We include all of our baseline controls to account for any remaining observable differences across these zip codes that may affect the far-right vote share. The estimate on this matched sample remains highly significant and rises slightly to 5.4.

Finally, columns (5) and (6) in Table VII show that the results are robust to two approaches described in Section II to account for loans missing due to the 2011 ERP. Column (5) estimates the fraction of missing loans using information from a separate database of loans for three large anonymous banks. Column (6) estimates the fraction of missing loans using the volume of borrowing during the ERP period. The point estimates are close to the baseline coefficient estimates.

B.2. Robustness to Alternative Explanations

Persistent Extremist Attitudes: Persistent far-right attitudes that are correlated with FC debt exposure pose a potential threat to identification. Several studies argue that far-right attitudes are persistent (Voigtländer and Voth (2012), Avdeenko and Siedler (2017), Fontana, Nannicini, and Tabellini (2017)). However, these attitudes may need to be “activated” and may therefore only manifest during crises (Cantoni, Hagemeister, and Westcott (2017), Ochsner and Rösel (2017)). To address this endogeneity concern, we conduct a placebo test using data on the first secret ballot election in 1939. Six far-right parties received 25% of the votes in 1939, so this election allows us to capture historical extremist attitudes.²²

Columns (1) and (2) in [Internet Appendix Table IA.IV](#) show that the FC share, measured in September 2008, is uncorrelated with the 1939 far-right vote share.²³ The unconditional correlation between the far-right vote share and *FCS* is marginally significant and negative, which goes against the persistent extremist attitudes concern. In columns (3) and (4), we regress the change in the far-right vote share between 2006 and 2010 on the 1939 far-right vote share. There is limited evidence that far-right attitudes dating back to the 1930s predict the rise of the far right in 2010. As a result, controlling for the 1939 far-right share does not meaningfully change the estimate on *FCS*. In columns (5) and (6), we interact the 2008 FC share with the 1939 far-right vote share. The interaction term is positive but small in magnitude, indicating that the effect of FC exposure is stronger in regions with higher historical far-right attitudes.

In [Internet Appendix Table IA.IV](#), column (7), we take another approach to control for historical extremist attitudes by including the far-left vote share in 1998. Far-left and far-right parties might be reasonably close from the viewpoint of populist voters. Indeed, a higher far-left vote share in 1998 predicts higher far-right vote share in 2010. Yet, the effect of household FC debt exposure remains quantitatively similar with this control. Taken together, these results suggest that the FC debt crisis did not simply “activate” latent far-right attitudes.

Roma Minority and Immigration: Fears about immigration and the scapegoating of minority groups also likely contributed to the rise of the far right.²⁴ Though the immigration rate was relatively low in the period leading up to

²² The six far-right parties participating in the 1939 election were the Arrow Cross Party, National Front, United Hungarian Nationalist Socialist Party, Christian National Socialist Party, Hungarian National Socialist Agricultural Labourers’ and Workers’ Party, and far-right candidates without a party affiliation. [Internet Appendix Section II](#) provides further details on the 1939 election.

²³ Although support for the far right was widespread, the government prevented far-right parties from appearing on the ballot in about half of the electoral districts (see [Internet Appendix Section II](#) for details). We therefore present results using only electoral districts where the far right was on the ballot and using all districts.

²⁴ Several studies find a positive relationship between exposure to immigrants and far-right voting, consistent with the “ethnic threat hypothesis” (Halla, Wagner, and Zweimüller (2017),

the 2010 election, Hungary has a sizable Roma minority.²⁵ Several studies attribute the success of Jobbik to their openly racist anti-Roma rhetoric (see, for example, Karácsony and Róna (2010)).

In column (1) of Table IA.V, we address these potentially confounding factors by controlling for local minority population shares. In addition to the Roma minority, we distinguish between minorities from surrounding countries and immigrants from other regions. Our main result is robust to controlling for the population shares of minority groups. Of course, voters may be influenced by anti-immigrant and antiminority rhetoric without living in proximity to minorities. Nevertheless, a higher local presence of minority groups has been shown to influence voting for right-wing parties in some contexts, so this provides a useful robustness check.

Financial Literacy: Less financially literate households may be more likely to borrow in FC and may also be more inclined to support a populist far-right party. So far, we control for education and income, which partially proxy for financial literacy. Column (2) in Table IA.V uses two additional settlement-level proxies for financial literacy. The first is the precrisis default rate, measured in September 2008, which captures potentially declining lending standards. The second is the share of home equity loans in total FC loans, which proxies for misselling and high-risk lending according to observers of the Hungarian credit boom (Bethlendi (2015)). Controlling for these variables does not meaningfully change our results. The coefficients on these control variables indicate that declining lending standards may also have contributed to increased far-right support.²⁶

Local Labor Market and House Price Shocks: Local labor market shocks may separately affect political preferences (Geishecker and Siedler (2011) Dippel, Gold, and Heblich (2015), Autor et al. (2016), Colantone and Stanig (2018),), and might also be correlated with households' FC debt exposure. Table IA.V, column (3), shows that our results are robust to controlling for two-digit industry employment shares, interacted with *Post*, to capture sector-specific shocks. We also control for the local employment share of firms with FC debt in 2007 to control for firm balance sheet distress from FC debt.²⁷

Dustmann, Vasiljeva, and Piil Damm (2018)). However, using data from Austria, Steinmayr (2021) shows that exposure to refugees can also lower local support for the far right, consistent with the hypothesis that interethnic contact can reduce prejudice.

²⁵ Our main focus is on the 2010 election, so our results are not driven by the impact of the refugee crisis, which started in 2013. Immigration was not a major issue in the 2010 election campaign, and mentions of immigration in parliamentary speeches were very low before 2015 (see Internet Appendix Figure IA.3).

²⁶ A related concern is that FC borrowers are of lower credit quality, as they borrowed later in credit boom, and therefore, may have voted far right even in the absence of FC debt exposure during the crisis. Figure IA.2 alleviates this concern by showing that the estimated effect of FC debt exposure is similar when separating the FC share into loans originated early and late in the credit boom.

²⁷ FC lending was also prevalent in the corporate sector (Bodnár (2006, 2009), Endrész, Gyöngyösi, and Harasztosi (2012)). Firm FC exposures weakened firm balance sheets and

In column (4), we directly control for the change in the settlement-level unemployment rate between 2008 and 2010. This measure captures a variety of shocks that raised unemployment, beyond sectoral or corporate FC debt-related shocks. Controlling for the increase in the unemployment rate leads to quantitatively similar estimates on the FC share. Column (5) controls for the change in subregional (175 units) house prices. The point estimate decreases slightly but remains significant. It is important to emphasize, however, that since household FC debt exposure depresses local economic activity and house prices, controlling for unemployment and house prices overcontrols for the effect of financial distress induced by FC debt (see Verner and Gyöngyösi (2020)). We return to the roles of unemployment and house prices in Section IV when discussing direct and indirect effects. Finally, column (6) in Table IA.V includes all control variables from the far-left vote share in 1998 to house price growth. The coefficient is quantitatively similar as in our baseline specification in Table VI, indicating that our results are not driven by a variety of alternative hypotheses.

IV. Mechanisms

So far we have documented that household financial distress from FC debt exposure led to an increase in the populist far-right vote share. In this section, we examine the channels through which the debt crisis influenced political preferences. While it is challenging to identify the exact mechanisms for why distressed debtors turned toward the far-right populist party, our goal is to present additional narrative and empirical evidence that sheds light on which mechanisms appear to be most important.

A. Rhetoric and Policies Regarding the Foreign Currency Debt Crisis

Campaign Promises: Campaign promises indicate that Jobbik catered to distressed FC debtors in disputes over the resolution of the crisis. In its manifesto, the main far-right populist party Jobbik mentions FC debt seven times, advocating for payment relief and debt restructuring, as well as other forms of debtor protections. For example, Jobbik's manifesto (Jobbik (2010, p. 12)) argued that the "unexpected increase in the burden of foreign currency loans has ruined many families" and contained the following pledges (translated from Hungarian):

"The eviction of troubled foreign currency borrowers will be suspended immediately for one year...We will make it mandatory for loans with a maturity of more than three years to be able to suspend repayment for 6-12 months, without any additional conditions or penalties. If foreclosure cannot be avoided, then the owner should be given at least six months to

depressed investment during this period (Endrész and Harasztosi (2014)). The decline in the number of observations in column (3) is due to the fact that there are no firms registered in the smallest settlements.

sell the property. A long term solution is a maintained low interest rate from the Central Bank of Hungary, and the refinancing of the foreign currency loans into low-interest rate domestic currency loans provided by the Central Bank of Hungary. After the significant decrease in the interest rate, we will incentivize maturity extension for both domestic and foreign currency denominated loans.”

Jobbik also campaigned against the dominance of foreign-owned multinational banks in domestic lending and pledged to create a banking system that “serves national interests” (Jobbik (2010, p. 11-12)).

In contrast, the incumbent Socialist Party’s 2010 election manifesto contains only one vague reference to household FC debt (MSZP (2010)):

“In the field of retail lending we need greater security, a mitigation of risks, and the introduction of new products. Regarding entrepreneurial and bank lending, the ratio of foreign currency debt should be reduced. Customer vulnerability must be further reduced.”

Promises made by the Socialist Party were regarded as less credible, as they were in government during the outbreak of the crisis, overseeing an unpopular \$25 billion IMF bailout. The Socialist government also passed a bank bailout but did not pass major legislation to address the FC debt crisis.²⁸ Jobbik and far-right media criticized bank bailouts and contrasted them with the lack of relief provided for FC debtors. Interestingly, neither Fidesz nor the newly founded green party mention FC debtors in their respective manifestos (Fidesz (2010), LMP (2010)).

Party leaders’ campaign speeches show a similar pattern. Gábor Vona, the Jobbik leader, campaigned on the conversion of FC-denominated loans to LC to prevent foreclosures.²⁹ In August 2009, Jobbik held demonstrations at the Ministry of Finance and the Hungarian Banking Association to protest against rising monthly payments on FC loans. At the same time, Viktor Orbán, prime minister candidate for the leading opposition party Fidesz, did not explicitly mention FC debt in several of his speeches in the months prior to the 2010 election. However, Fidesz did campaign against the Socialist government’s handling of the crisis, the high share of foreign banks in Hungary, and the IMF program.

Parliamentary Speeches: To provide insight into the far-right populist party’s rhetoric regarding the FC debt crisis once the party entered parliament in 2010, we scraped and analyzed 350,251 speeches given on the floor of the Hungarian parliament between 2000 and 2016.³⁰ These parliamentary

²⁸ Two domestic banks, OTP and FHB, received loans worth EUR 1.4 billion and 0.4 billion to meet liquidity shortfalls in early 2009.

²⁹ For example, at a rally on March 15, 2010, Gábor Vona said: “We will make the multinationals and banks pay their fair share... With the conversion of foreign currency loans to local currency, we will prevent the eviction of families” (translated from Hungarian).

³⁰ The speeches are available at: <https://www.parlament.hu/web/guest/orszagguyules>. Internet Appendix Section III provides further details on the sample of speeches.

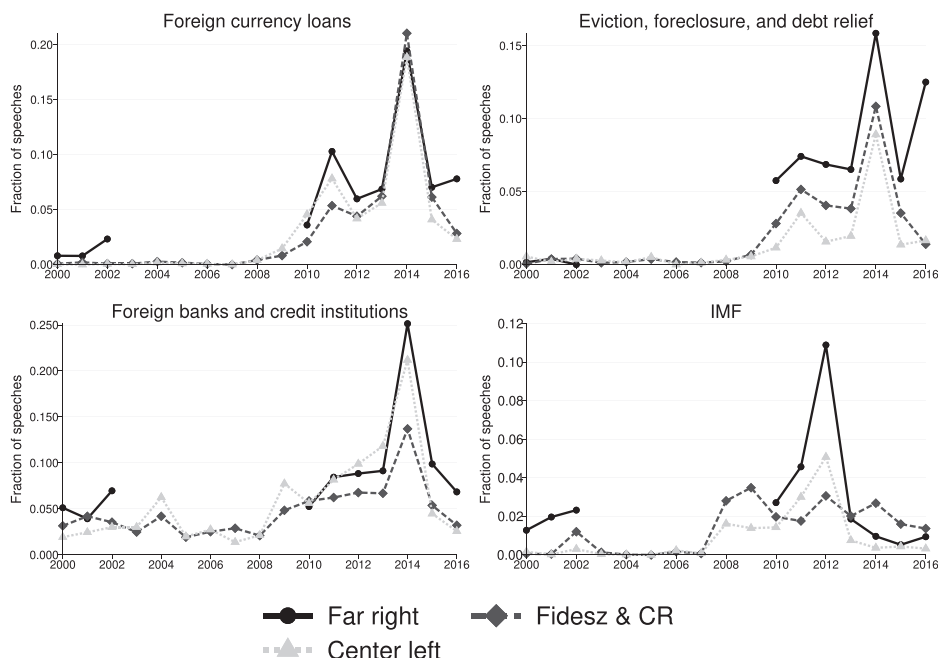


Figure 7. Frequency of terms related to the crisis in parliamentary speeches by party.

This figure plots the fraction of parliamentary speeches containing specific keywords related to the crisis by party group. The translation of keywords related to “foreign currency loans” are: “foreign currency loans,” “foreign currency debt,” “foreign debt,” “Swiss franc,” and “exchange rate.” Keywords related to “evictions, foreclosure, and debt relief” are: “eviction,” “eviction moratorium,” “debt rescheduling,” “debt forgiveness,” “early repayment [program],” “settlement [law],” and “foreclosure.” Keywords related to “foreign banks and credit institutions” are: “foreign bank,” “credit institutions,” “finance,” “unilateral contract changes,” “bank tax,” and “financial transactions tax.” Keywords related to the IMF are: “IMF” and “International Monetary Fund.” See [Internet Appendix Section III](#) for the original Hungarian keywords used. No far-right parties were in parliament between the 2002 and 2010 elections, so the frequency of keywords is missing for this period.

speeches provide a well-defined sample to analyze the far right’s rhetoric on the crisis.

We analyze these parliamentary speeches in three ways. First, Figure 7 plots the frequency of keywords related to the crisis by party groups over time. Second, in [Internet Appendix Section III](#), we provide excerpts of speeches to illustrate key themes of the far-right’s rhetoric on the FC debt crisis. Third, we use two machine learning models—random forests and gradient-boosted decision trees—to classify whether a speech related to the FC debt crisis is by a far-right member of parliament. The goal of this descriptive exercise is to more systematically identify whether there are certain keywords (“features”) that help classify whether a speech is by the far right. We restrict the sample to speeches given from 2010 to 2014 and to sentences that contain at least one

keyword related to the FC loan crisis (see [Internet Appendix Section III](#) for details on the sample and classification models).

Our analysis of parliamentary speeches yields six insights. First, members of parliament frequently mention terms related to FC loans, especially after 2010 when the far right enters parliament (top-left panel in [Figure 7](#)). The far right is among the party groups that most frequently mentions FC loans, but they are mentioned by all parties, especially in 2011 and 2014 when major debt restructuring policies were debated in parliament (the ERP in 2011 and the Settlement and Conversion Programs in 2014). Second, Jobbik speeches often emphasized the widespread nature of FC debt distress and argued that they were the only party representing the interest of Hungarians against “the bankers,” consistent with a populist rhetorical style (see excerpts in [Internet Appendix Section III](#)).

Third, far-right speeches frequently referenced terms related to debt relief, evictions, and foreclosures (top-right panel [Figure 7](#)). Jobbik speeches repeatedly demanded that FC loans be converted back to domestic currency at the exchange rate at the time of origination. As a result, “time of origination” emerges as one of the most important features for predicting whether a speech is by the far right based on the two machine learning models (see [Internet Appendix Tables IA.XII and IA.XIII](#)). Jobbik also argued for prohibiting debt collection following foreclosure. Jobbik often referred to FC borrowers as “credit victims” in a “debt trap,” and “foreign currency victims” is an important feature selected by both machine learning models for predicting whether a speech is by the far right.

Fourth, the far right criticized the banking sector. The bottom-left panel in [Figure 7](#) shows that terms related to foreign banks and credit institutions were mentioned frequently by all parties. The far right, in particular, blamed banks for originating risky FC loans, which they referred to as “usury” and “fraudulent” contracts, arguing that banks profited from deceiving borrowers into taking risky loans. The far right also criticized banks for unilaterally changing contract terms, a practice that required banks to compensate borrowers in the Settlement Law of 2014.³¹

Fifth, Jobbik’s prodebtor, anticreditor rhetoric is intertwined with its critique of the IMF and international finance capitalism. The far right mentioned the IMF in a higher fraction of speeches than other party blocs (bottom-right panel in [Figure 7](#)). Both machine learning models also select “IMF” as an important feature for classifying far-right speeches (see [Internet Appendix Tables IA.XII and IA.XIII](#)). From the speech excerpts, we see that the far right blamed the IMF for imposing austerity and constraining the government’s ability to provide assistance to FC borrowers. Attacks on the IMF were also connected to Jobbik’s broader critiques of multinational companies and international financial institutions.

³¹ Both machine learning models select “contract amendments,” highlighting that the far right emphasized this issue.

Finally, the far right used the crisis to criticize the incumbent Socialist government, which was in power from 2002 to 2010. In particular, the speech excerpts show that the far right criticized the Socialist government for failing to regulate FC lending, for the lack of consumer financial protection, and for removing LC interest subsidies, which led to the increase in FC lending. These speeches accuse the Socialist party of being captured by the banking sector by not wanting to “harm the extra-profit interests of foreign banks.” The far right also blamed the Fidesz government for not doing enough to address the FC debt issue.

Policies Targeting Foreign Currency Debt and Banking Sector Lobbying: After the 2010 election, the new Fidesz government passed three major debt policies affecting FC debtors.³² Political pressure from the far right may have played an important role in Fidesz’s push to pass these policies. The first of these policies was the ERP in the fall of 2011. Róna (2015) notes that Jobbik began collecting signatures on September 1, 2011 for a petition to force banks to convert FC loans into domestic currency at the exchange rate at the time of origination.³³ Soon after, Fidesz proposed the ERP, which was enacted on September 19, 2011.

The ERP allowed households to prepay FC mortgage and home equity loans at a preferential exchange rate, with the banking sector bearing its cost. The program, however, only assisted 23% of primarily wealthier FC debtors, as it required that the entire principal be prepaid, which led to criticism from the far right (see [Internet Appendix Section III](#)). The Hungarian Banking Association (HBA), a professional advocacy association of the Hungarian banking sector coordinating and representing the views of the banking community, opposed this policy for imposing losses on banks and intervening in private contracts. A group of 11 banks were also fined by the competition authority (GVH) for directly undermining the program by “illegally collud(ing) to restrict the availability of refinancing loans to reduce the scale of mortgage repayments under the scheme.”³⁴

In 2014, the Fidesz government implemented two additional policies targeted at FC borrowers. The first, the Settlement Act, required banks to compensate borrowers for charges from unilateral changes in the terms of the contracts. In the crisis, banks unilaterally increased interest and exchange rate spreads on FC loans. While the HBA argued that this was a risk management tool (Sebők and Kozák (2020)), these practices were subsequently ruled to be “unfair” by the Supreme Court of Hungary (Kúria). The required compensation amounted to more than 3% of 2014 GDP, which imposed major losses on banks. The HBA argued that the Settlement Act threatened the

³² [Internet Appendix Section IV](#) provides an overview and further details on all major policies affecting household FC loans.

³³ The question on the petition was: “Do you agree that the conversion of foreign currency loans to domestic currency should happen at the exchange rate at the time of origination, and the burden of the conversion should be borne by the banking sector?”

³⁴ “Hungary’s competition watchdog fines banks for cartel,” *Reuters*, November, 11, 2013.

foundations of private-law contracts and financial stability and that the law was not constitutional. About 80 banks unsuccessfully filed lawsuits challenging the law. The second policy was the conversion of all FC mortgage and home equity loans into domestic currency at the late 2014 market exchange rate. The conversion did not provide further debt relief but eliminated exposure to subsequent exchange rate movements.

Foreign banks also issued complaints to the EU over these policy interventions. The EU encouraged the Hungarian government to take a more consultative approach in dealing with the FC loan issue. The EU and the ECB urged the Hungarian government to give “due consideration to fair burden sharing” between consumers, financial institutions, and the government (ECB (2014)). They emphasized that this consideration should include foreign banking groups. The EU and ECB also highlighted the risk to financial stability of concentrating losses on lenders. Finally, some foreign banks and the ECB hinted that foreign banks might reconsider their long-term commitments to Hungary if further losses were imposed on foreign banks, with “the possibility of longer-term negative effects on the Hungarian economy and financial markets” (ECB (2014)).

B. Creditor-Debtor Conflict

This section relates the evidence on Hungary’s FC debt crisis to broader theories of the political consequences of debt crises that emphasize debtor distress and conflict between creditors and debtors.

Framework: Debt crises often give rise to disputes between creditors and debtors over how the burden of adjustment to the crisis is distributed. Frieden (2015) argues that creditor-debtor conflict—both domestically between borrowers and savers, and internationally between debtor and creditor nations—has played a central role in the political economy of adjustment to many debt crises. Prominent examples include the Great Depression, the developing country debt crises of the 1980s and 1990s, and the Eurozone crisis.³⁵

Fully noncontingent debt contracts impose the burden adjustment to adverse economic shocks entirely on debtors, even though debtors tend to have the least capacity to absorb losses. The burden of adjustment for debtors is even greater for FC debt in a crisis where the funding currency appreciates, as in Hungary’s case. Debt relief can introduce ex post state contingency that increases welfare by mitigating inefficient foreclosures and negative demand externalities. For example, Bolton and Rosenthal (2002) show that debt relief

³⁵ For example, a central pillar of Franklin Roosevelt’s first 100 days was abandoning the gold standard and the abrogation of gold clauses in debt contracts. Gold clauses allowed creditors to demand repayment in gold or gold equivalent. The abrogation of gold clauses alleviated the impact of the depreciation of the dollar on debtors. The abrogation was legally challenged by owners of bonds and certificates bearing gold clauses, but was upheld by the Supreme Court in 1935 (see, for example, Edwards (2018)).

after a negative shock improves ex post efficiency and may even improve ex ante efficiency. Debt relief can thus be supported by majority voting.³⁶

Although debt relief can even benefit creditors when debt overhang is severe, debt relief is often not a Pareto improvement. Disputes about the resolution of the crisis therefore result in different policy preferences. Debtors want debt relief, debt restructuring, and other debtor-friendly interventions, especially if financial distress is severe. Creditors, on the other hand, oppose these measures and demand full repayment (Mian, Sufi, and Trebbi (2014)). Since creditors are often less dispersed, they may find it easier to organize themselves and influence policy, as the HBA did in Hungary's crisis (Olson (1965)). This creates a niche for a political party to win support from debtors by advocating debtor-friendly policies.

Why may populist parties disproportionately benefit from a debt crisis and the ensuing creditor-debtor conflict? The costs and benefits of exploiting creditor-debtor conflict vary across parties depending on their ideology, electoral strategy, and constituency. For populist parties, advocating for debtor-friendly policies connects with their claim to speak for "the people" against "the elite" by representing the interests of dispersed debtors against the financial sector. Debt provides a specific economic issue around which to coordinate, and also provides a clear "outsider"—the banking sector—for populist rhetoric to target. In Hungary, this strategy may have been particularly effective, as FC loans were a salient cause of severe financial distress and foreign banks provided an easily identifiable scapegoat to blame. Related to this, populist parties can link their broader anti-outsider and antiglobal-elite platform with a debt crisis when the source of the crisis is external, as in the case of FC loans originated mostly by international banks. Loans linked to an FC may reinforce populists' concerns about loss of sovereignty and national control. In addition, populist parties often highlight that they are political outsiders, so debtor-friendly redistributive policies and anticreditor rhetoric allow them to signal that they are not captured by the elite (Acemoglu, Egorov, and Sonin (2013)).

Establishment parties may also propose debt relief to cater to distressed debtors, but these parties may find it more costly to exploit creditor-debtor conflict for several reasons. First, establishment parties, especially liberal parties on both the right and left, are often ideologically opposed to modifying private debt contracts (Calomiris and Haber (2014)). In Hungary's case, ideological constraints help explain why establishment parties, especially the Socialist party, eschewed pushing for debt relief. In general, the Socialist government was unwilling to push for aggressive redistributive policies, especially policies that were not market friendly. Following the transition, the former communist party in Hungary transformed itself into a social-democratic party.

³⁶ In the United States, states with higher farm financial distress passed legislation that helped debtors after the Panic in 1819 (Rothbard (2002)) and in the 1930s (Alston (1984)). Similarly, U.S. representatives whose constituents experienced a sharper increase in default were more likely to support the Foreclosure Prevention Act in 2008 (Mian, Sufi, and Trebbi (2010)).

To establish credibility for its commitment to a market economy, its policies were more conservative and market-friendly than traditional social-democratic parties (Lindner et al. (2020)).³⁷

Second, relative to populist parties, establishment parties may view the economic costs of modifying debt contracts as being higher. These costs include risks to financial stability and the economic costs of greater legal uncertainty. For example, in Hungary's case, the IMF weighed against FC loan modifications that would impose losses on banks for both financial stability and legal reasons (IMF (2011)).³⁸ Moreover, the Socialist government did not have fiscal space to propose debt relief funded by the government, especially in light of the IMF program.

Third, major debt relief can be a divisive policy. Mainstream parties may be less willing to advocate for debtors at the expense of other interest groups that are important for their electoral coalitions, including owners of firms that rely on bank credit and savers who do not stand to directly benefit from debt relief. These voters may view redistribution that does not benefit them as unfair, or they may fear that they will bear the cost of debt relief.³⁹ Depending on the extent of debtor distress, some parties will calculate that advocating for debt relief will alienate voters who would not directly benefit. This highlights that debt crises can result in broader tension not only between distressed debtors and banks, but also between distressed debtors and other voters.⁴⁰

In Hungary, larger establishment parties may have calculated that rescuing FC debtors would not be popular with other voters and therefore avoided the divisive issue. There is no survey evidence on voter preferences for debt relief. However, it is likely that some Hungarian voters without FC debt, including those who borrowed in domestic currency, would have opposed debt relief and believed that FC debtors should not be bailed out for taking on exchange rate

³⁷ This logic is also supported by the Polish example where the communist party transitioned into the social-democratic party (Lindner et al. (2020)), and during the crisis, the right-wing offered bailout policy for FC debtors (Ahlquist, Copelovitch, and Walter (2020)).

³⁸ Specifically, the 2010 IMF Article IV Consultation notes that "efforts to help distressed mortgage holders are welcome, as long as moral hazard and fiscal cost are contained" (IMF (2011)). Commenting on the ERP, the 2011 Article IV Consultation noted that the "scheme threatened the stability of the financial sector by reducing bank capital... At the same time, it provided little relief to the most distressed borrowers as predominantly well-off households have access to the forint liquidity to buy back FX mortgages. More broadly, the implicit retroactive revision of private contracts without consulting the banking sector may have inflicted large and lasting damage on Hungary's reputation among investors" (IMF (2012)).

³⁹ Some voters may even view the duty to repay one's debts as a moral obligation (Graeber (2012)).

⁴⁰ For example, the Tea Party movement in the United States emerged in 2009 from anger toward policies to assist overindebted homeowners to avoid foreclosure. Using survey data in Poland following the appreciation of the Swiss franc in 2015, Ahlquist, Copelovitch, and Walter (2020) find that voters who would not directly benefit from FC debt relief measures are less likely to support these policy measures.

risk to obtain lower interest rates before the crisis.⁴¹ Bíró-Nagy, Boros, and Vasali (2013) argue that Fidesz was less likely to undertake conflicts because of its broader constituency. Instead of advocating for FC debt relief, Fidesz instead criticized the banking sector and proposed policies with broader appeal such as reducing utilities prices.

Fourth, establishment parties may be captured by the elite, including the financial sector, and thus, be unwilling to impose losses on banks (Zingales (2012)). Calomiris and Haber (2014) argue that governments rely on forming coalitions with the banking sector and are thus wary of implementing policies to harm banks. A common narrative in Hungary was that the Socialist government placed greater weight on the policy preferences of the banking sector. Examining major financial policy issues before and after the 2010 election, Sebők and Kozák (2020) argue that the HBA was more successful in influencing policy during the Socialist government than after 2010, although its decline in policy influence after the 2010 election was not as stark as popularly believed. While it is difficult to gauge the extent of financial sector influence on the Socialist Party's policies, Jobbik and Fidesz certainly both sought to create the impression of capture by accusing the Socialist government of being a "government of bankers" (*bankárkormány*).

Finally, establishment parties may also have less of an incentive to experiment with policies that are deemed radical, such as aggressive debtor-friendly policies. As Rodrik (2014) puts it: "Political incumbents may be deterred from [policy] experimentation because they will bear the full cost of failed policy experiments, but will share the rents resulting from any successes with potential challengers who act as copycats." However, failure to address crises can cost establishment parties their legitimacy, creating an opening for populist parties.

When establishment parties do not directly engage an issue such as widespread debtor distress, this may boost support for populism not only through *failures of compensation*, but also *failures of representation*, to use the terminology of Frieden (2018). That is, FC debtors may turn against establishment parties not only for the material reason that these parties are not pushing for debt relief, but also because these parties are perceived as not considering the problems of ordinary voters. A populist party's willingness to address the problem can signal that it is more concerned with the well-being of ordinary citizens and play into its claim to speak for "the people."

Other Historical and Recent Examples: Our analysis considers one specific setting in which a risky loan product resulted in widespread household financial distress and led to disputes over the resolution of the crisis between creditors and debtors. To illustrate the potential broader relevance of creditor-debtor conflict, we highlight several historical examples that suggest populist parties can benefit from creditor-debtor conflict during financial crises. Perhaps, the earliest known case is discussed in Goetzmann (2016, p. 57), who notes that

⁴¹ An article written in a daily newspaper in 2011 by two prominent left-wing liberal economists, one a former minister, makes this point: "Twelve arguments against state rescue of foreign currency borrowers," István Csillag and Péter Mihályi, *NOL.hu*, May 14, 2011.

loan forgiveness edicts were commonly issued by populist rulers in ancient Mesopotamia. Another early historical example is the U.S. populist movement during the late 19th century, which arose partly as a consequence of high debt among farmers and volatile agriculture prices. The populists blamed, among others, Northeastern bankers for economic distress in rural areas. They argued for restricting foreclosures, introducing interest rate controls, and expanding the money supply to reduce real debt burdens (Stock (1984), Eichengreen et al. (2017)).

Another prominent example is the rise of the Nazis. Straumann (2019) argues that Germany's war reparations, high foreign debt, and resulting banking crisis in 1931 played an important role in Hitler's rise to power. Hitler capitalized on the crisis by frequently denouncing the reparations regime and blaming foreign powers for depressing the German economy. Doerr et al. (2018) analyze variation across German cities to document a connection between the failure of a major bank led by a Jewish manager and the Nazi vote. They highlight that the Nazis exploited the banking crisis by combining antifinance and anti-Semitic sentiment in their propaganda.⁴²

The aftermath of the 2008 financial crisis also contains numerous examples of populists exploiting debt crises and cleavages between debtors and creditors. In response to the sharp increase in foreclosures following Spain's housing bust, the left-wing populist party Podemos evoked distressed debtors and evictions in their campaign rhetoric and proposals. In Poland, a sharp appreciation of the Swiss franc in 2015 spurred support for a right-wing populist party offering a generous resolution scheme for Swiss franc debtors, similar to Hungary's experience (Ahlquist, Copelovitch, and Walter (2020)). In the Eurozone crisis, international creditor-debtor conflict over sovereign debt contributed to the rise of Syriza in Greece and AfD in Germany. The case of AfD illustrates that populist parties can also rally behind creditors (savers) when exploiting creditor-debtor conflict.

These historical and recent examples illustrate that populist parties on both the right and left can benefit from creditor-debtor conflict by advocating for distressed debtors and criticizing the banking sector, consistent with the malleability or "thin ideology" of populism (Mudde (2004)).

C. Direct and Indirect Effects

The zip-code-level estimates of the effect of FC debt exposure on the far-right vote share could be driven by both direct and indirect effects. The direct effect represents the effect of FC debt on far-right support from FC debtors themselves. FC debtors experienced the most acute financial distress, and these borrowers were the main target of the far right's debt relief proposals.

⁴² Historians note that various sources of financial distress boosted Nazi support. Discussing the late 1920s period following Germany's hyperinflation, Evans (2003, p. 208) argues that declining prices led to bankruptcies and foreclosures among indebted small farmers, which led small farmers to turn to the extreme right "in their despair."

The indirect effect represents the effect of local FC debt exposure through local spillover effects. In Verner and Gyöngyösi (2020), we find that the local FC debt shock depressed durable spending and increased local unemployment. As a result, there were negative local spillover effects of the FC debt shock. For example, we document that borrowers were more likely to default if they lived in a region with high local FC debt exposure, conditional on their own FC debt position.

Voters indirectly affected by the local general equilibrium effects of the crisis may also be more likely to support the far right. For example, voters in areas negatively affected by the FC debt shock may support the far right for their aggressive policies to address the crisis. There may also be an “economic voting” effect of the worse recession, whereby voters turn against the incumbent, which could benefit both the mainstream opposition and the far right. In addition, there could be noneconomic indirect effects. A greater local prevalence of FC debt might increase awareness of the crisis and solidarity with FC debtors. Indirect effects may also reduce far-right support. For example, voters in areas with high FC debt exposure could be less inclined to support the far right for assisting borrowers who took out risky loans, preferring instead to vote for parties that cater more directly to their own economic interests.

In Verner and Gyöngyösi (2020), we estimate direct and indirect effects on loan default using data on individual default along with individual and local FC debt exposure for the universe of borrowers in the credit registry. Such a test of direct and indirect effects is not possible for the present analysis on voting, as we cannot match voting to loan positions at the individual level. We therefore explore the role of direct and indirect effects using various alternative approaches.

Defaults on Local and Foreign Currency Loans: We first examine how financial distress for LC and FC debtors, proxied by local default rates, relates to the success of the far right. We regress the change in the far-right vote share between the 2006 and 2010 elections on various measures of the change in default rates between 2008 and 2010 at the zip code level. Loans in Hungary are full recourse, so households do not have a strategic incentive to default. Default therefore mainly captures financial distress and the inability to repay.

Table VIII shows that zip codes with a larger increase in mortgage default rates see a larger increase in the far-right share. A 1 percentage point increase in the default rate is associated with a 0.12 percentage point higher far-right vote share, with the estimate statistically significant at the 1% level. In columns (2) and (3), we separate the default rate into defaults on FC and LC loans. An increase in the default rate on FC loans is associated with a higher far-right vote share. In contrast, the coefficient on the increase in the LC default rate is smaller and insignificant. Including both default rates in the same specification gives similar results (column (4)).

In Internet Appendix Table IA.VI, we examine how default rates correlate with the change in the vote share of the center-right parties that were in opposition prior to 2010. We estimate the same regressions as in Table VIII, but

Table VIII

Household Default Rates and Populist Far-Right Support

This table presents zip-code-level regressions of the change in the far-right vote share from 2006 to 2010 on the change in default rates between 2008 and 2010. The default rate is either the overall default rate on housing loans (column (1)) or the default rates on FC and LC housing loans (columns (2) to (4)). Controls are defined as in Table VI. Regressions are weighted by number of eligible voters in 2006. Standard errors are clustered at the subregion level. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively.

	Δ Far Right Vote Share			
	(1)	(2)	(3)	(4)
Δ Default rate	0.122*** (0.0389)			
Δ Default rate, FC loans		0.0906*** (0.0297)		0.0891*** (0.0296)
Δ Default rate, LC loans			0.0310 (0.0297)	0.0239 (0.0298)
Controls	✓	✓	✓	✓
County FE	✓	✓	✓	✓
R ²	0.686	0.686	0.685	0.686
Observations	3,473	3,473	3,473	3,473

use the change in the center-right vote share from 2006 to 2010 as a dependent variable. In contrast to the results in Table VIII, the LC default rate has a positive relation with center-right votes and is significant at the 10% level, while the estimate for FC default is smaller and not statistically significant.

These results indicate that, in this context, it is not overall financial distress but rather distress from FC loans that is associated with a shift in support toward the far right. Areas with higher distress among LC borrowers instead saw increased support for the mainstream opposition party, consistent with economic voting, whereby voters punish the incumbent for deteriorating economic conditions. While these results are estimated at the zip code level, they suggest that financial distress due to FC loans, including the direct effect on FC debtors themselves, played an important role.

Mediation Analysis: To further examine the role of indirect effects, we conduct a simple mediation analysis (MacKinnon (2008)). We summarize the main results of this analysis and provide further details in Internet Appendix Section V. We estimate

$$\Delta_{06-10}FarRightShare_i = \alpha_1 + \beta_1FCS_i + \gamma_1M_i + X_i\Gamma_1 + e_i, \tag{3}$$

where the dependent variable is the change in the far-right vote share from 2006 to 2010, and M_i is a measure of the change in local economic conditions that potentially mediates the effect of the local FC debt shock. As potential mediators M_i , we consider the local default rate, unemployment rate, house price index, and durable spending, proxied by the number of new autoregistrations. All variables are measured as the change or growth rate between 2008 and

2010. At the outset, we emphasize that mediation analysis requires strong additional assumptions. In particular, it requires that the mediator is exogenous in (3). Any unobserved shock that affects the mediator and the outcome will result in bias. For example, if the candidate mediator is local unemployment, a trade shock that affects local labor markets and far-right support would lead to an upward-biased estimate. We therefore view this exercise as descriptive.

With these caveats in mind, Internet Appendix Table IA.XIV presents the estimates of (3). Higher unemployment, higher defaults, lower house prices, and lower durable spending are associated with an increase in the far-right vote share. All estimates are statistically significant except for unemployment. However, this simple mediation exercise suggests that indirect effects through these local economic conditions explain a modest share of the effect of FC debt exposure on the rise of the far right. The reason for this is that the mediators are relatively weakly related to the far-right vote. As a descriptive accounting exercise, moving from an area with 0% to 100% FC debt share raises the unemployment rate by (a highly statistically significant) 2.42 percentage points (Table IA.XV; see also Verner and Gyöngyösi (2020)). This implies an increase in the far-right vote share of $2.42 \times 0.0355 = 0.086$, which is a small fraction of the total effect of 4.4 from Table VI. As a result, the estimate on *FCS* in Table IA.XIV is quantitatively similar to the baseline estimate. The other mediating factors have similar indirect effects on far-right voting (see Table IA.XV).

Given that local economic conditions such as unemployment are unlikely to be exogenous in equation (3) and hence $\hat{\gamma}_1$ may be biased, we perform a bounding exercise and consider a range of larger effects of the mediating variable on the far-right vote share. To do this, we estimate

$$\Delta_{06-10}FarRightShare_i - \bar{\lambda}M_i = \alpha_3 + \beta_3FCS_i + X_i\Gamma_3 + v_i, \quad (4)$$

where $\bar{\lambda}$ is a parameter that governs the effect of the mediating variable. That is, we estimate the effect of *FCS*_{*i*} on the far-right share, net of a mediating factor, and allow the mediating factor to explain a larger fraction of the variation in $\Delta_{06-10}FarRightShare$. We first set $\bar{\lambda}$ as multiples of $\hat{\gamma}_1$. Internet Appendix Table IA.XVI presents estimates of β_3 for various mediators with values of $\bar{\lambda}$ ranging from $1 \times \hat{\gamma}_1$ to $5 \times \hat{\gamma}_1$. Increasing the explanatory effect of the default rate, especially the FC default rate, on the far-right vote share lowers the estimate of β_3 . However, for other mediating variables such as unemployment or house prices, the point estimate on *FCS*_{*i*} is not meaningfully affected, even if we allow for mediating effects of five times $\hat{\gamma}_1$.

We can also choose $\bar{\lambda}$ based on estimates from the literature. Sipma and Lubbers (2020) conduct a meta-analysis of estimates of the relation between unemployment and far-right voting. They report a wide range of estimates, including negative estimates in some settings. They conclude that the relation is positive but limited in size. The upper range of estimates imply that a 1 percentage point increase in unemployment is associated with a roughly 1 percentage point increase in the far-right share. With $\bar{\lambda} = 1$, the estimate of β_3 falls to 2.0 (*p*-value 0.108). Setting $\bar{\lambda} = 2$, a value implied by the estimates in

Algan et al. (2017), the estimate becomes slightly negative. Thus, only if one is willing to assume a $\bar{\lambda} = 2$, a value much higher than suggested by our data is the impact of *FCS* on far-right support accounted for by its effect through unemployment.

As a final exercise to investigate the role of indirect effects through unemployment, we examine the political preferences of individual unemployed voters over time. Using repeated waves of the Tárki Omnibus survey data, [Internet Appendix Figure IA.4](#) shows that the level and increase in far-right support during the crisis is similar for employed and unemployed voters. Similarly, [Table III](#) above shows that far-right supporters tend to have slightly higher employment rates than supporters of other parties. Thus, while the FC debt shock had local economic effects, these local economic effects do not necessarily translate into increased support for the far right. Intuitively, voters negatively affected by the general equilibrium effects of FC debt, for example, through job loss, may not directly link their job loss to FC loans and would thus not necessarily support Jobbik for their prodebtor stance.

To summarize, we interpret these results cautiously as indicating that the direct effect of FC debt is important, while the indirect effect through unemployment or other local aggregate economic variables seems to account for less of the effect. However, we note that there could also be noneconomic indirect effects, such as increased awareness of the crisis and solidarity with FC debtors in areas with higher FC debt exposure. Local communities exposed to the FC debt crisis may respond sociotropically, as in the case of globalization shocks (Colantone and Stanig (2019)).

Individual-Level Survey Data Evidence: The strong relation between the far-right vote and the rise in FC defaults rates, along with the absence of a clear mediation through local unemployment, suggests that the direct effect of FC debt on far-right support is an important part of the zip-code-level effect. To further support the role of a direct effect, we use individual-level survey data to confirm that FC debtors themselves are more likely to support the far right. We use the February 2010 Tárki Household Monitor, conducted two months before the April 2010 election. This is the only survey conducted before the 2010 election that contains information on individual debt positions by currency and political preferences.

The advantage of using survey data is that it is immune to the ecological inference problem (King (1997)) and allows us to verify that FC debtors themselves support the populist far right. Moreover, survey data allow us to exploit variation within settlements and control for individual-level characteristics. The drawbacks of the Tárki Household Monitor are that loan currency denomination is likely to be measured with error, the sample size is modest ($N = 1,833$ likely voters), and actual voting behavior may differ from reported preferences, especially for populist parties. Fewer people report in surveys that they intend to vote far right than actually do, possibly because of social desirability bias (Hooghe and Reeskens (2007)). The Tárki Household Monitor

Table IX
Foreign Currency Debt Exposure and Populist Far-Right Support in Survey Data

This table presents linear probability model estimates of the intention to vote for the far right based on survey data from the Tárki Monitor. Variables are measured in February 2010, two months prior to the April 2010 election. Individual controls include education, income, gender, and household size. Robust standard errors in parentheses. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively.

	Pr(Far-right vote)			
	(1)	(2)	(3)	(4)
Loan	0.0463*** (0.0178)	0.0360** (0.0181)		
FC loan			0.0618*** (0.0228)	0.0543** (0.0235)
LC loan			0.0286 (0.0224)	0.0164 (0.0225)
Individual controls		✓		✓
Settlement FE		✓		✓
Observations	1,833	1,833	1,833	1,833

underpredicts the far-right vote share by about 4 percentage points in the 2010 election.⁴³

Table IX presents estimates from individual-level linear probability models of far-right support. Columns (1) and (2) show that individuals with a loan are 3.6 to 4.6 percentage points more likely to support the far right. Columns (3) and (4) separate individuals with a loan into those who have FC debt and those with only LC debt. The effect of having a loan is driven entirely by borrowers with FC debt. Individuals with an FC loan are 5.4 to 6.1 percentage points more likely to vote far right. This effect is large relative to the mean intention to vote far right of 11.8% and is robust to the inclusion of education, income, and other household controls. Furthermore, the effect is similar when exploiting only variation across individuals within settlements.

D. Other Mechanisms

In this section, we examine several additional mechanisms through which the increase in FC debt burdens may have influenced political preferences.

Declining Trust: Distressed FC debtors may have voted for the far right to express their discontent with establishment parties and with the political

⁴³ Survey respondents are from 81 different settlements (out of 3,152 settlements). With this small sample, we cannot reliably estimate the indirect effect of local FC debt exposure on the political preferences of voters in this survey. The variance of local FCS is substantially lower than the variance of individual FC exposure, as it averages individual FC exposure within each settlement. Moreover, the survey contains a small number of voters from each settlement, leading to more noise in the outcome variable.

system more broadly. For example, Algan et al. (2017) find a strong correlation between the decline in trust and the rise in populism across European regions. Fully understanding the role of declining trust is challenging without survey data. Nevertheless, the declining trust channel has several testable implications. First, the declining trust channel suggests that other anti-establishment parties should also have benefited from the household balance sheet crisis. Second, increased dissatisfaction with the political system would imply lower turnout and an increase in the number of invalid (blank) votes in areas more exposed to FC debt.

Table X presents the effect of *FCS* on the vote share of other parties, turnout, and protest votes by reestimating equation (1) for these outcome variables. Column (1) reports the result for the vote share of the center-right bloc. The center right was in opposition in 2008, and they saw a significant increase in high *FCS* zip codes. The opposite is true for the governing center-left parties, which lost more in exposed regions. These results are consistent with economic voting theory, whereby people vote against the incumbent in recessions. Some voters affected by FC debt may want to vote against the incumbent but may not be willing to vote far right. However, as discussed in Section IV.C, it is worth noting that local FC defaults are a more robust predictor of the increase in the far-right share than the center-right share.

Column (3) of Table X presents the estimate for the communist far left. The point estimate is significantly negative, indicating that the far left did *worse* in zip codes with higher FC share. Even more telling, Table I shows that the far left received only 0.11% of the votes in 2010, so the far left did not benefit from the FC debt crisis. While the newly founded green party received 7.5% of the overall vote in the 2010 election, column (4) reveals that it fared relatively worse in areas with greater FC exposure.⁴⁴ Since the green party was newly established, we estimate the relation cross-sectionally for the 2010 election. Column (5) shows that the point estimate falls further when we include the 2006 vote shares of other parties to control for persistent differences in political preferences across zip codes.

Next, we examine the relation between FC exposure and turnout.⁴⁵ Column (6) shows that the estimate on *FCS* is negative, suggesting that the crisis had a discouraging effect on participation. However, the negative estimate is driven by a negative trend in turn-out in high *FCS* areas. When we control for zip-code-specific time trends, household FC debt exposure has only a modest discouraging effect on turnout (column (7)). Furthermore, FC debtors were not

⁴⁴ The green party, *Politics Can Be Different*, campaigned on standard green issues such as environmental protection and sustainable development, but also emphasized corruption among political elites and a rejection of the mainstream political parties.

⁴⁵ Charles and Stephens (2013) and Burden and Wichowsky (2014) document that unemployment increases turnout. Guiso et al. (2017) emphasize that preference to vote for a populist candidate is positively correlated with abstention, which lowers the likelihood of electing a populist. Similarly, McCartney (2020) finds that household financial distress depressed voter participation in North Carolina.

Table X
Effect of Foreign Currency Exposure on Other Parties' Vote Shares, Turnout, and Invalid Votes

This table shows the results of zip-code-level regressions in which the dependent variable is the vote share of various political parties. Controls include the number of loans in 2008 per eligible number of voters, debt-to-income in September 2008, per capita income in 2008, education shares, age shares, and log population. Controls are interacted with election years. Regressions are weighted by the number of eligible voters in 2006. Standard errors are clustered at the subregion level. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively.

	Center Right		Center Left		Far Left	Green		Turnout		Invalid votes
	(1)		(2)		(3)	(4)	(5)	(6)	(7)	(8)
FC share × Post	4.355*** (1.192)		-7.258*** (1.246)		-1.824*** (0.422)			-4.547*** (0.866)	-1.338 (1.827)	0.0771 (0.151)
FC share						-0.369 (0.618)	-1.402*** (0.495)			
Election FE	✓		✓		✓			✓	✓	✓
Zip code FE	✓		✓		✓			✓	✓	✓
Controls	✓		✓		✓	✓	✓	✓	✓	✓
County-election FE	✓		✓		✓			✓	✓	✓
County FE						✓				
Political preferences in 2006							✓			
Zip code specific trend									✓	
R ²	0.881		0.950		0.763	0.835	0.856	0.890	0.953	0.640
Observations	13,900		13,900		13,900	3,475	3,475	13,872	13,872	13,872

less likely to abstain from voting according to individual-level survey data from the Tárki Monitor (see [Internet Appendix Table IA.VII](#)).

In column (8), we examine how FC debt exposure affects the share of invalid votes. Invalid votes include blank protest votes, and voting blank provides a way to express dissatisfaction with the political system. The impact of *FCS* on invalid votes is a tightly estimated zero. The emergence of the debtor-friendly far right provided a policy platform for distressed debtors who might otherwise have cast a blank vote to express their frustration.

Overall, there is limited evidence that FC debt exposure increased support for other anti-establishment parties, depressed turnout, or led to an increase in protest votes. This suggests that FC debtors did not lose trust in the political system. Moreover, declining trust alone appears to be unlikely to explain why the populist far right benefitted from the financial distress of FC debtors. However, declining trust in establishment parties may complement the creditor-debtor conflict channel, as distressed FC debtors likely lost faith in the ability of establishment parties to address their economic problems.

EU Skepticism: A related channel is that FC debtor distress led to an increase in EU skepticism, perhaps because European integration contributed to the inflow of foreign finance. Since the far-right party had a critical stance toward the EU, this may have boosted their support among FC debtors.⁴⁶ Interestingly, the financial crisis was not associated with a marked increase in EU skepticism in aggregate, according to Eurobarometer data ([Internet Appendix Figure IA.6](#)). An increase in EU skepticism by itself is therefore unlikely to explain the far right's surge.

Nevertheless, the effect of FC debt may interact with baseline sentiment toward the EU. In [Internet Appendix Table IA.VIII](#), we examine whether the effect of FC debt exposure on the populist far-right vote share differed across zip codes by their baseline support for the EU. We proxy for baseline EU support using votes in Hungary's 2003 EU membership referendum, in which 83.8% of voters favored joining the EU. We reestimate equation (1) and add the share votes supporting EU accession. Areas that were more pro-EU in 2003 actually see a slightly stronger increase in the far-right vote share, but controlling for the share of pro-EU votes has little impact on the FC share estimate (columns (1) and (2)). Interacting the FC share with a dummy for whether the pro-EU share is high reveals that the effect of FC debt exposure is about twice as large in areas that had a high pro-EU share in 2003, though the difference is not significant at conventional levels. These results suggest that FC debt exposure may have led to disappointment with the EU among voters who were previously supportive of the EU due to financial distress caused by the crisis.

Inequality and Redistribution: Financial crises can also affect political preferences through their impact on inequality (Mian, Sufi, and Trebbi (2014),

⁴⁶ Jobbik's campaign rhetoric was critical of European integration as they saw it as a threat to Hungarian sovereignty. For example, in their 2010 campaign manifesto, Jobbik wrote that as a consequence of joining the EU, whole economic sectors went bankrupt.

Funke, Schularick, and Trebesch (2016)). Economic crises tend to increase inequality (Atkinson and Morelli (2011)), and financial crises disproportionately affect the poor (Halac et al. (2004)). Populist parties may respond by advocating for redistributive policies. In this context, however, inequality and preferences for redistribution are unlikely to explain the increasing popularity of the far right for several reasons.⁴⁷

First, overall income inequality as measured by the Gini coefficient was declining between 2006 and 2010, as seen in Internet Appendix Figure IA.7. Second, the importance of inequality should also be reflected in the composition far-right voters. Poorer individuals tend to favor more redistribution (Alesina and Giuliano (2009)), so the popularity of the far right should be higher among poorer people. Contrary to this hypothesis, Table III shows that average income of far-right supporters is similar to supporters of mainstream parties, and far-right voters are more likely to be employed compared to voters of other parties.⁴⁸

Third, if concerns about inequality influenced far-right support in 2010, then one would also expect the far right to advocate for more redistributive policies. In Table IA.IX, we compare policy positions of the far right to other moderate parties in 2010 using the Manifesto Project data. The far-right scores lower on support for redistribution through welfare compared to the center left and center right, which is inconsistent with the support for redistribution hypothesis.

Anti-Immigration Sentiment: Economic shocks may also increase anti-immigration attitudes. Far-right populists tend to use nativist and xenophobic rhetoric, which may have increased appeal to voters in economic distress, as immigrants may be perceived as providing competition for scarce resources such as jobs or social benefits. An indirect channel for effect of FC debt may be through an increase in anti-immigration sentiment. To test whether FC debt exposure increased support for the far right by kindling xenophobic preferences, we examine attitudes toward refugees captured by the 2016 referendum on EU migrant country quotas. The referendum was initiated by the Fidesz government, and both Fidesz and Jobbik campaigned aggressively against the migrant quotas.⁴⁹ Opposition parties, in contrast, campaigned against participation in the referendum, and voter turnout fell short of the 50% threshold required for the referendum outcome to be binding. This resulted in 97% of votes being cast against the EU quota, with a turnout of 44%.

In Table IA.XI, we investigate how FC debt exposure impacted the 2016 referendum. The table shows that turnout was lower in areas with higher exposure to FC debt in September 2008. Moreover, the share of “yes” votes, indicating support for the EU’s migrant resettlement plan, was slightly higher in high

⁴⁷ Of course, debtor-friendly policies themselves are also a form of redistributive policies, but here we focus on more traditional policies (e.g., tax and transfer policy) to reduce inequality.

⁴⁸ Rudas (2010) also finds that far-right voters are more likely to have other assets compared to voters of other parties.

⁴⁹ The referendum question was: “Do you want the European Union to impose compulsory introduction of non-Hungarian citizens to Hungary without the consent of the National Assembly?”

FCS areas. While we cannot observe the precrisis response to this question, this evidence does suggest that increased xenophobia was not a key channel through which FC exposure translated into far-right support.

Thus, debtor distress may have inflamed anti-outsider sentiment, but this anti-outsider sentiment was directed at foreign banks and international financial organizations such as the IMF, rather than immigrants. Immigration was not a salient issue in Hungarian politics before the refugee crisis, which culminated in 2015 (see also Figure IA.3).⁵⁰ In addition, some Jobbik supporters may be single-issue voters who voted for Jobbik primarily in support of their debtor-friendly policies, while ignoring other aspects of the party's messaging.

V. Conclusion

We study the impact of a household debt crisis on support for far-right populism using a natural experiment in Hungary. Our empirical framework uses detailed zip-code-level data and exploits variation in the prevalence of FC household loans around a sharp exchange rate depreciation. Debtor distress induced by FC debt exposure leads to a substantial increase in the vote share of the populist far-right party, explaining 20% of its overall increase in the crisis. We present narrative and empirical evidence, indicating that the far right benefited by advocating for aggressive debtor-friendly policies, thereby exploiting the creditor-debtor conflict that ensued in the crisis over how the burden adjustment to higher debts should be distributed.

An important implication of these findings is that increased financial distress as a consequence of risky lending not only affects the real economy. Financial distress can also influence political outcomes. A related implication is that inadequate regulation of risky financial products can have far-reaching political implications. Even when populist or extremist parties are not part of government, they can shape policymaking indirectly by setting the agenda (Minkenberg (2001)) and exerting influence on the strategy of moderate parties (Guiso et al. (2017), Abou-Chadi, and Krause (2018)). This, in turn, can impact the policy response to a crisis. Populist parties can advance radical but potentially beneficial policies such as large-scale debt relief, when such policies were previously eschewed by establishment parties. However, the success of populist parties may also increase policy uncertainty and threaten progrowth institutions (Funke, Schularick, and Trebesch (2020)).

Our findings suggest that the fallout from *financial* globalization can contribute to increased support for populism, in addition to *trade* globalization, which has received more attention in studies of the economic determinants of

⁵⁰ One possibility is that FC debtors who borrowed from foreign banks would be more attracted to the populist far right than those with FC loans from a domestic bank. Figure IA.5 shows that the increase in the far-right share is not significantly different for when separating the FC debt share measure into loans originated by banks with foreign names and loans originated by banks with Hungarian names, and the point estimate is larger for loans granted by banks with Hungarian names. These results are similar if we separate banks by whether their ownership is foreign or domestic.

populism. Indeed, financial distress may be particularly powerful in boosting support for populist parties when the perceived culprits of that distress are easily identifiable foreign banks and the increased debt repayment in FC is perceived to be unfair. Exploiting the cleavage between ordinary citizens and foreign banks dovetails with populists' broader political style of claiming to represent the people against elites and foreign threats.

Our paper raises a number of interesting questions for future research. First, financial crises are often followed by increased political polarization and support for far-right parties, yet financial crises have many dimensions. We explore one specific aspect—financial distress from risky FC loans translating into support for a far-right populist party. While there are interesting parallels with debtor-distress and creditor-debtor conflict in other crises, many of the dynamics we describe are specific to Hungary's context. An important avenue of future research is to identify relevant mechanisms for changes in the political landscape after financial crises in other contexts. The work by Doerr et al. (2018) on bank failures and far-right support is a recent example of this line of research.

A second question relates to which radical parties benefit from crises. We find that distressed FC debtors turned to the populist far right but not the far left. In Hungary's case, the far left was discredited after the collapse of the Soviet bloc, while the Socialist Party was blamed for the crisis and was seen as having close ties to the banking sector.⁵¹ Although there are notable exceptions, Funke, Schularick, and Trebesch (2016) find that far-right populist parties tend to disproportionately benefit from financial crises and globalization shocks, so this is a more general pattern. Rodrik (2021) suggests that financial and globalization shocks activate and magnify latent cultural divisions in society that far-right parties are better positioned to exploit. Understanding why financial and globalization shocks have primarily benefited populist parties on the far right in recent decades is an important question for future research.

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⁵¹ Moreover, while Jobbik relied on nativist messaging typically associated with “far-right” parties, on several economic issues its platform has left-wing aspects. For example, Jobbik critiqued multinationals and global capitalism and supported an interventionist state that protects citizens from the harmful effects of globalization (Bíró-Nagy, Boros, and Vasali (2013)). Therefore, the left/right distinction is not entirely clear-cut. More broadly, even though right-wing populist parties tend to be pro-market, they are often critical of international financial institutions and multinational corporations, which they argue pose a threat to national identity and the economic interests of ordinary people (e.g., Front National in France and Lega Nord in Italy; see Betz (1994) and Albertazzi and McDonnell (2015)).

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Supporting Information

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Appendix S1: Internet Appendix.
Replication Code.