



Populism, financial crises and banking policies: Economics and psychology

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Abstract

Financial crises often seem to be associated with populism, although the populist banking policies introduced to address such crises are far from homogenous. This apparent paradox—a sort of “sight-unseen consensus”—suggests that specific economic drivers coupled with general psychological components can explain populist consensus. We propose a model of populist consensus, which we term “democratic rioting,” in which individuals' decisions to support or resist a specific populist bailout policy after a financial crisis are heavily influenced by psychological group dynamics. Those dynamics, in turn, are driven by general, non-banking-related motivations, such as anti-elite sentiments. In a multiple equilibria setting, the more individuals are unhappy for general economic and/or psychological reasons, the more likely they are to support myopic and redistributive populist banking policies rather than long-sighted public interventions.

KEYWORDS

banking policy, behavioural economics, financial inequality, fiscal policy, political economics, populism

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1 | INTRODUCTION

In light of the Great Depression, the Great Crisis and their aftermaths, the emergence of populism in the wake of financial crises has taken the stage in academic and public debates (Guriev & Papaioannou, 2020). Events—and descriptive analyses too, see Appendix A—seem to point to a link between financial crises on the one hand and populist consensus on the other. As such, a question naturally arises: Do the banking policies that the populist parties implement or suggest in the face of such a crisis trigger or enhance the consensus on their relevance among citizens?

The answer is far from obvious. For instance, the populist banking policies introduced in response to the 2008–2009 bailout dilemma were quite heterogeneous, ranging from “no taxpayers' money to banks” to “save banking deposits whatever it takes.” In other words, a sort of “sight-unseen consensus” paradox emerges in such situations. This calls for an investigation of the demand for populism when the economic policy under discussion is a bank-bailout strategy that leads politicians to intervene in some way, eventually resulting in a conflict between traditional parties and new, radical political forces, such as populist parties.

Our starting point is the extant literature on the political consequences of financial crises (De Bromhead et al., 2013; Funke et al., 2016; Mian et al., 2014). This literature sheds light on the nexus between these crises and their political after effects, and focuses on the fact that the citizens seem to be particularly attracted to the political agenda of populist parties. In this perspective, populism is a consequence of political and economic cycles (Algan et al., 2017; De Vries, 2018; Di Tella & Rotemberg, 2018; Guiso et al., 2017; Mosimann et al., 2019). Notably, this view can be considered together with two other general economic explanations: populism caused by trade shocks (Autor et al., 2016, 2016; Colantone & Stanig, 2018) and populism caused by socio-economic inequalities (Bischi et al., 2020; Dorn et al., 2018; Goodwin & Heath, 2016; Inglehart & Norris, 2016).

Other strands of literature are also useful for exploring the drivers of populism and shedding light on the mechanisms through which individual decision-making is influenced by psychological factors (Nowakowski, 2021). This research pays particular attention to citizens' groups. First, several papers recognize the fact that populists use myopic, short-term solutions that benefit certain subgroups of the population. Such policies are often harmful in the long run (Acemoglu et al., 2013; Chersterley & Roberti, 2018; Dornbusch & Edwards, 1991; Sachs, 1989). Second, empirical evidence supports the association between wealth groups and populism. Moriconi et al. (2018) show that the inflow of less educated immigrants is associated with an increase in votes that favour nationalistic positions and that this association is stronger for non-tertiary educated voters. Giebler and Regel (2018) find that the “Poors” vote more for right-wing populists, as these individuals are more likely to be unemployed and have less education. Moreover, from a theoretical point of view, Bischi et al. (2020) show that fear of immigration can drive people to support populism. Third, and more generally, studies in social psychology underline that individual voting can be affected by group affiliation through group norms, information and concepts of identity (Gerber & Rogers, 2009; Huckfeldt & Sprague, 1995; Tajfel, 1982).

Given the relationship between financial crises and populist consensus, a key question emerges: Is there a role for the policies that the populist parties suggest and/or implement in response to such crises? The answer is unclear. In fact, evidence suggests that as the negative effects of financial crises are generally severe, politicians tend to intervene by changing the policy design (Saka et al., 2020) and/or the corresponding institutional setting (Masciandaro & Quintyn, 2016). These actions are likely to be politically motivated (Dalla Pellegrina & Masciandaro, 2008; Saka et al., 2020). Nevertheless, populist parties adopt heterogeneous positions, especially with regard to the design of bailout policies in the aftermath of financial turmoil. In some cases, they favour generous bailout policies—as in Poland in 2015; in other situations, they adopt a position against the bailout solution proposed by the incumbent, traditional parties—as in Italy in 2017 (for further details on these two opposite cases see Appendix B). With respect to the surge of populist parties on the right, policy heterogeneity seems to characterize their socio-economic agendas during elections (Roth et al., 2018).

Our paper aims to offer theoretical answers to the above questions by shedding light on the links between specific populist banking policies and political consensus, and by exploring the relevance of general economic and psychological drivers. Our reasoning is as follows. Envision a country that is hit by a systemic banking shock. In this country, a mainstream party and a populist party are in electoral competition. The two parties propose different platforms to address the crisis. The mainstream party is the classical centre-right or centre-left party, and it follows moderate economic policies. The populist party pushes for a sub-optimally high or low policy depending on its political positioning—what matters is that those policies are not welfare maximizing.

The citizens decide which proposal they support by balancing the costs and benefits of their choice both economically and psychologically. On the one hand, the individual choice is heavily influenced by the respective wealth group. As such, this is a behavioural decision—it is not only economic but also driven by emotions. In this regard, what other group members do matters for the individual. On the other hand, any wealth group has a reference point, which depends on group information. Therefore, the wealth group's reference point is influenced by news about immigration, welfare plans, and housing plans. This, in turn, generates “democratic rioting.” This mechanism moves the reference point and generates fuel for the populist vote, and the political consensus on specific bailout policies becomes dependent on a number of issues that have nothing to do with the policies themselves. In other words, the consensus on specific banking policies becomes a general political manifestation of anger and frustration.

The remainder of the paper is organized as follows. Section 2 presents how the economy works, including the different options in terms of policy design. Section 3 describes how the political consensus on the banking policy depends on both economic and psychological drivers. We offer our conclusions in Section 4.

2 | BANKING CRISES AND POPULIST VERSUS MAINSTREAM POLICIES: ECONOMICS AND PSYCHOLOGY

This paper is based on the above-mentioned literature on populist movements. A standard definition in the literature is introduced by Cas Mudde (2004, 2010) and Mudde and Kaltwasser (2017): populism is a “thin-centred ideology” that considers society to be ultimately separated into two homogenous, antagonistic groups that are the “pure people” and the “corrupt elite.” Populist movements claim that they protect the people from the elite. The people, in turn, share a demand for short-term protection. These movements appear to be characterized by two main properties (Guiso et al., 2017; Saint, 2018): the accommodation of certain demand conditions and a disregard for future consequences. The fact that populist policies are both redistributive and myopic is a constant theme in the literature focussed on the economic aspects of populism (Acemoglu et al., 2013; Chersterley & Roberti, 2018; Dornbusch & Edwards, 1991; Sachs, 1989).

We assume, first, that populists enter the electoral competition by supporting short-term rather than long-term policies. In order to highlight this special characteristic of populist policies in our framework, we assume that populists want a sub-optimal level of public bailout for banks in order to differentiate themselves from the optimal level proposed by the mainstream party. Our framework allows for sub-optimally low or sub-optimally high bailout policies. Some populist parties choose high public spending to reward specific social and economic groups, and as a tool to address voters' demands (Ahlquist et al., 2020). Other populists fight the banks as part of the “corrupt” elite and may want to offer them the lowest bailout possible.

Second, we assume that individuals who decide to vote for the populist party do so by balancing the costs and benefits both economically and psychologically. Individual choice is heavily influenced by the respective wealth group. Indeed, we assume that the psychological benefits and individual costs of voting for populists are different for poor and rich individuals. We model the psychological benefit so that each citizen needs to be angry in order to perceive it and it grows proportionally with that anger. Individuals are angry if they believe they deserve more than they get on a welfare basis. This happens when policy expectations are different from the group-specific

reference point. Intuitively, each group may perceive this to be true for a variety of reasons related to immigration, unfair or absent welfare programmes, or a lack of economic opportunities. Notably, the causes of such a perception can be completely orthogonal to the specific policy on which the individual will vote.

Third, we know that populists tend to blame economic and political elites. In our framework, this means that the populist rhetoric incentivizes each person in the two groups to consider that group's features. For example, the poor may represent the lower 70% of the wealth distribution, while the rich are the elite in terms of wealth. Our key assumption is that individual agents' votes are influenced by group behaviour from a psychological standpoint.

Our approach defines populist policies as short-term, sub-optimal policies that are driven by anti-elite (i.e. redistributive) motivations. This approach is based on Golder (2016), who suggests that "the precise content of the populist message is context-dependent" but it always goes against the established power structures, and on Guiso et al. (2017), who propose that the left or right orientation of a populist party depends on the political opportunity space. Moreover, our approach is compatible with all types of non-mainstream parties (e.g. populists, extremists, anti-system actors). This allows us to be as general as possible in building a model that links populism with specific economic policies—in our case, the orientation towards bank bailouts.

Our model builds a macroeconomic framework and a political economy decision for the citizens of the economy. Within our macroeconomic framework, there is an optimal bailout policy after the banking shock. Each citizen works the same hours but has a different amount of wealth than she or he had in the past. This implies that every citizen compares herself or himself to one of the two wealth groups: rich and poor.¹ The assigned group matters in terms of the psychological benefit derived from voting for populists. In short, each citizen has a probability of voting for the populists that depends on three features: whether that citizen is angry with the mainstream party, whether that citizen compares herself or himself to the rich or the poor, and the individual costs of voting for the populists. Psychology drives the first two motivations, while economics explains the third.

We assume that an aggregate negative banking shock generates a positive probability of voting for a populist party by acting on the demand for populism, given a fixed supply of populism. A generic populist party offers an alternative to a classical party that represents the optimal policy choice. Our approach bridges a political economy framework and a macroeconomic framework—the negative banking shock makes the government introduce a proportional tax to fund the banking system's bailout. The extent of the intervention is to be decided through the electoral competition. We assume that this will be the only policy dimension on which to vote (Persson & Tabellini, 2002).

In this model, monetary and fiscal policy interact but voters only choose the latter. This setup replicates a common institutional setting seen in the advanced economies starting in the 1980s—a monetary dominance regime (Masciandaro & Romelli, 2015). In such a regime, monetary policy is in the hands of an independent central bank, while the government controls fiscal policy.

2.1 | Players

The economy consists of heterogeneous agents: the government, the central bank and the banking system (Masciandaro & Passarelli, 2019).² For the sake of simplicity, we assume that the population size is normalized to one, such that total and per capita amounts are the same for all variables. Moreover, we assume that there is only one representative bank in the economy.³

¹In contrast to Masciandaro and Passarelli (2019), wealth composition does not matter here.

²Alternatively, as in Gertler et al. (2017), we can assume that each household (family) consists of a continuum of members who can be either workers or bankers. Workers supply labour and earn wages for the household, while bankers manage a financially risky business and transfer the relative earnings back to the household. The number of bankers in each household is heterogeneous.

³This implies that all banks are homogeneous and that the macro-banking outcome is simply the sum of micro-level optimizing behaviour.

We take the bank profits as exogenous, thereby distinguishing between normal times and extraordinary times. In normal times, the bank works properly—the government does not need to issue debt and, consequently, there is no need to introduce taxation to service such debt. Extraordinary times come when a banking crisis occurs and the government is forced to intervene. The fiscal policy design involves two decisions: one regarding the bailout amount, and one regarding how to finance the bailout given the central bank's decisions in terms of fiscal monetization and the presence of a monetary dominance regime. Consequently, the central bank's choices will be in line with its inflation goal.

The government introduces an income tax to repay debt and interest. The citizens make decisions about labour and consumption given the tax policy. The government's choice of a bailout policy will reflect the trade-off between minimizing tax distortions and smoothing out the monetary and financial externalities that a bailout policy can trigger. This is where the nature of the government in charge becomes relevant. In fact, if the incumbent government chooses a sub-optimal bailout policy (i.e. a policy that is different from the social planner optimization), that choice will decrease welfare. For example, if the bailout rate is too high, the economy will likely suffer an inflation cost (a monetary externality) and/or higher moral hazard risks (a financial externality).

Finally, we study the possibility of a populist consensus can strengthen a populist government in charge, but it can also influence the choice of a traditional incumbent government. Recently (Kishishita & Yamagishi, 2021), it has been explored the propagation of populist policies in different countries through an external contagion channel, when an interaction between domestic and foreign policies is active. Here, we add the possibility of an internal contagion channel, through the interaction between alternative domestic parties.

2.2 | Policy design

The citizens are risk neutral, and they draw utility from consumption and disutility from labour. They use their net labour income and their financial assets to buy a single consumption good. We assume heterogeneity in the composition of their portfolios, while labour income is the same for all individuals. These assumptions enable us to zoom in on the macroeconomic consequences of financial inequality, all else equal. Individual utility is linear⁴:

$$c - U(l) \tag{1}$$

The budget constraint of a citizen who owns an average portfolio is:

$$c = l^* (1 - \tau) + w + \beta (1 + \lambda) \pi (1 + i(1 - \delta)) \tag{2}$$

where l^* is the optimal labour supply, labour productivity is normalized to one and $l(1 - \tau)$ is the after-tax (net) labour income. w is the average amount of wealth in the economy.

$U(l)$ is an increasing and convex effort function. After observing τ , each citizen chooses how much to work to maximize (1). The optimality condition yields the citizen's labour supply function:

$$L(\tau) = U_l^{-1}(1 - \tau) \tag{3}$$

$L(\tau)$ is decreasing in the tax rate: $L_\tau < 0$.

The optimal labour supply depends on the specific functional form of $U(l)$, which depends on the selected tax policy: $l^* \equiv L(\tau)$.

⁴Linear utility helps us with a simpler solution at a low cost, as we do not model intertemporal consumption choice in this paper.

As labour is the only factor of production, the labour supply represents the total income: $y = L(\tau)$. Therefore, income and the labour supply in equilibrium will depend on the tax policy.

In extraordinary times (i.e. when a banking crisis occurs), the government faces a trade-off: let the bank fail or rescue it. In the latter case, the government issues public debt for the same amount as the bailout, and sells it to either citizens or the central bank.

The government defines the bailout policy, β , such that the saved amount is $\beta\pi(1 + \lambda)$. Note that the bailout policy determines how painful the banking shock is for individuals. The government budget constraint is:

$$\beta(1 + \lambda)\pi(1 + i(1 - \delta)) = \tau y \quad (4)$$

where τ is the tax rate, y is the income of the citizens before taxes, i is the interest paid on the government bonds, and $\delta \in [0, 1]$ is the central bank's purchase, which represent fiscal monetization. The interest rate on bonds is determined according to a standard no-arbitrage condition with respect to a perfect, long-term, risk-free interest rate. As usual, it is a parameter.

For any unit of debt issued, the government repays $1 + i(1 - \delta)$ in the next period. The cost of debt $i(1 - \delta)$ is negatively associated with fiscal monetization, as the more the central banker is conservative (i.e. low δ) in a monetary dominance setting, the smaller the portion of the debt purchased by the central bank will be. The government fully internalizes the consequences of the monetary dominance regime in defining the bailout policy, β , by considering the fiscal monetization parameter. Therefore, the overall policy design is: $\tau = T(\beta, \delta)$.

Finally, we consider the macroeconomic relevance of both financial and monetary externalities. The financial externalities depend on the bailout policy, β , and are increasing and convex in the amount of lost bank liabilities:

$$FE(\beta) \equiv \frac{\epsilon}{2} [(1 - \beta)(1 + \lambda)\pi]^2 \quad (5)$$

Monetary externalities are assumed to increase with fiscal monetization:

$$ME(\beta, \delta) \equiv \frac{\varphi}{2} \delta^2 \beta(1 + \lambda)\pi \quad (6)$$

In summary, citizens draw utility from consumption and disutility from labour, financial and monetary externalities. These costs are spread equally among citizens, so that the indirect utility function, $V(\beta, \delta)$, of a citizen with an average portfolio is:

$$V(\beta, \delta) = C(\beta, \delta) - U(l^*) - FE(\beta) - ME(\beta, \delta) \quad (7)$$

We assume a generic probability distribution of wealth for the citizens. If the bailout policy, β , is implemented, the value of the citizen's average portfolio is influenced as follows:

$$\beta(1 + \lambda)\pi + \beta(1 + \lambda)(1 - \delta)\pi i + w \quad (8)$$

The first term is the value of the citizen bank share and bank deposits. The second term is the interest payment on government bonds, while the third term is the average wealth, w . Individual portfolios differ from the average portfolio. We assume that the differences in individual portfolios reflect only differences in the amount of initial wealth, w^i , as we are only interested in dividing the population into two broad groups (rich and poor). The bailout option and the fiscal monetization influence both the average portfolio value and the individual

portfolio value through two channels: the value of the bank's liabilities and the interest payments on public bonds.⁵

The choice of β determines how relevant the shock is for individuals. It is a de facto wealth shock that affects the citizens (i.e. the voters). A higher bailout rate implies not only a lower wealth shock for the citizens but also higher costs of externalities.

The optimal policy is derived as follows. The social planner considers the relation between the tax policy, $\tau = T(\beta, \delta)$, and the labour supply in order to maximize the social welfare function, $V(\beta, \delta)$, by choosing the policy strategy regarding the banking policy, β^* , and the monetary policy, δ^* .

Given the government's budget constraint (2) and the labour supply (3), the budget constraint becomes:

$$\beta(1 + \lambda)\pi(1 + i(1 - \delta)) = \tau L(\tau) \quad (9)$$

This gives, in implicit form, the relationships between the tax policy on the one hand and the bailout and fiscal monetization policies on the other hand. In fact, by differentiating (9) and introducing the labour supply elasticity, $\eta(\tau) \equiv -\frac{\tau L'}{L}$, to highlight the tax-distortion effect, we obtain:

$$T_\beta = \frac{(1 + \lambda)\pi(1 + i(1 - \delta))}{l^*(1 - \eta(\tau))} > 0 \text{ and} \quad (10)$$

$$T_\delta = \frac{\beta(1 + \lambda)\pi i}{l^*(1 - \eta(\tau))} < 0 \quad (11)$$

According to Equation (10), a higher bailout percentage implies a higher tax rate owing to the larger amount of debt and interest. By the same reasoning, higher fiscal monetization reduces the tax rate (Equation 11).

Using the social welfare function of the citizens with average portfolios (8), the two optimality conditions are:

$$V_\beta = C_\beta(\beta, \delta) - E_\beta(\beta) - I_\beta(\beta, \delta) \leq 0 \quad (12)$$

$$V_\delta = C_\delta(\beta, \delta) - I_\delta(\beta, \delta) \leq 0 \quad (13)$$

where strict inequality implies the corner solution (i.e. $\beta^* = 0$ or $\delta^* = 0$).

When setting the banking bailout policy, the social planner accepts a trade-off between two public goals: externality smoothing and tax-distortion minimization. The social planner solution becomes the benchmark for evaluating the government's actual choices. For example, if the bailout is too high, taxes are high, thereby reducing the indirect utility. At the same time, financial and monetary externalities grow significantly.

By solving the FOC system (12–13) and using (2, 6–7), we obtain the socially optimal choices:

$$\beta^* = 1 - \frac{1}{\varepsilon(1 + \lambda)\pi} \left[\frac{\eta}{1 - \eta}(1 + i(1 - \delta^*)) + \frac{\varphi}{2}\delta^{*2} \right] \quad (14)$$

$$\delta^* = \frac{\eta}{1 - \eta} \frac{i}{\varphi} \quad (15)$$

⁵Notably, we assume that rich and poor citizens differ in terms of past wealth, w^i , and have the same amount of bank assets as well as the same externality risks for the sake of simplicity (i.e. to identify one main economic channel between bailout policies and political consensus). The more other channels are in action, the more a multiple equilibria setting is likely to occur.

3 | CONSENSUS MECHANISM: DEMOCRATIC RIOTING AND POPULISM

Now, the bailout policies can be associated with political consensus by mimicking a voting procedure (Masciandaro & Passarelli, 2019). Citizens vote on the proposals for different bailout percentages.⁶ Every citizen, j , has an indirect utility:

$$V^j(\beta, \delta) = V(\beta, \delta) + w^j - w \tag{16}$$

which is given by the citizen with the average portfolio plus or minus his or her individual wealth.

We assume that these differences matter only because they induce the creation of two groups broadly defined by wealth: rich and poor. In other words, wealth is the only feature that defines the group's reference point for political issues. Emotionally, the poor do not compare themselves with the elite or vice versa.

The citizens express their consensus by voting and there is only one policy dimension on which to vote (Persson & Tabellini, 2002).⁷ Voting on such a decision is suitable for creating a public debate and channelling attention, thereby cementing collective emotions around the issue. As we already mentioned, the monetary policy decision is made by an independent central bank that chooses the optimal level of inflation defined by (15). We assume that there is no strategic choice of δ in anticipation of the popular consensus. The central bank addresses the banking crisis in a way that is consistent with its mandate.

The citizen is voting only on β . Thus, we use the notation $V^i(\beta)$. For simplicity, agents in each group are assumed to have the same wealth among themselves, which is lower for the poor agents:

$$V^r(\beta) > V^p(\beta)$$

The two group sizes are λ^r and λ^p , such that $\lambda^r + \lambda^p = 1$ and $\lambda^r < \lambda^p$.

Now, in order to highlight the specialness of the populist policy, we assume that the mainstream party proposes the optimal bailout policy, β^* , while the populists prefer a bailout policy where $\beta \neq \beta^*$. This assumption is coherent with the populists presenting a different policy than the traditional parties, and it should be modelled on the specific populist party and political system.

Citizens decide whether to vote for the populist party by balancing the economic and psychological costs and benefits of this choice. The individual costs of voting for the populists consist of a component common to all groups, $\mu > 0$, and a group-specific random variable, ϵ^{ij} , with uniform distribution with a mean of zero and a density of $\frac{1}{2\sigma^i}$.⁸

The individual benefit of voting for populists comes from the expression of emotions in a way that has a public impact. Importantly, the individual benefit of voting for populists increases as the size of the individual's group increases. This is an indirect, public display of emotions. Therefore, the more it is shared by group members, the more it pleases the individual. In the words of Passarelli and Tabellini (2017), "the psychological benefit of a public display of anger is stronger if the emotion is more widely shared" and is related to being treated unfairly.

The individual benefit crucially depends on the presence of anger among citizens in the groups. Anger is defined as $a^i \equiv A^i(\beta)$:

$$a^i = \frac{1}{2} \max [0, R^i - V^i(\beta)]^2 \tag{17}$$

⁶In contrast to Masciandaro and Passarelli (2019), we do not use the median voter theorem, as we are considering a framework for which a probability of voting for the populists emerges. This framework will not deliver a clear winner in an electoral competition, but rather a proxy of the support for populists.

⁷We can assume that the bailout decision is, by far, the most important political issue on which the two parties compete.

⁸The total cost of voting for the populists should satisfy: $\Delta V(\beta) * \Delta \beta = (\lambda^r + \lambda^p)\mu + \int \int \epsilon^{ij} didj$.

$V^i(\beta)$ is the group's indirect utility and R^i is the group's reference point, which defines what the group expects in terms of indirect utility. For example, an individual who is part of the poor group is angry if $a^p > 0$. This happens only if the poor expect a different indirect utility than the one they get.

In summary, individual j in group i votes for the populists if the benefits are greater than the costs:

$$p^j \lambda^i a^i - \mu - \varepsilon^{ij} \geq 0 \quad (18)$$

If we assume a uniform distribution for ε^{ij} , the probability of voting for a populist party is:

$$p^j = \Pr(\varepsilon^{ij} \leq p^j \lambda^i a^i - \mu).$$

$$p^j = \frac{1}{2} + \frac{p^j \lambda^i a^i - \mu}{2\sigma^i} \quad (19)$$

Solving for the probability, we have:

$$p^{*i} = \frac{\sigma^i - \mu}{2\sigma^i - \lambda^i a^i} \quad (20)$$

For individual j in group i , the probability of voting for the populists is higher when the individual cost of voting for the populists is lower, the anger of group i is higher and the variance in group-specific costs is lower. This formula defines our model of consensus and highlights the importance of the psychological drivers, all else equal. The equilibrium probabilities for both groups allow for multiple equilibria: a sub-optimal policy can be relevant (regardless of the proposal) depending on which perceptions are in action, country by country and period by period, given the economic features of the proposed policy.

The above link between consensus on the one side and economic and psychological drivers on the other allows us to analyse different political positions on a bank-bailout policy.

3.1 | The votes of the poor and the rich

Equation (20) describes support for populists in economies hit by banking shocks. Individuals have a different probability of voting for populists depending on their wealth group, which is assumed to be related to their economic costs and the psychological benefit of voting for populists. Two dimensions must be taken into account: the individual costs of voting for populists, ε^{ij} , and anger, a^i .

Consider a scenario in which the poor have less variance in the individual costs of voting populist ($\sigma^p < \sigma^r$) and the same anger as the rich ($a^p = a^r > 0$). This assumes that the poor have more homogeneous costs relative to the rich. Intuitively, the rich may have more extreme individual costs (positive or negative) of voting for populists. For example, a populist regime may choose a part of the economic elite of a country to become even more powerful through government backing in business ventures or it may crush the same ventures to capitalize on a political opportunity.

We know that the equilibrium probability of voting for populists,

$$\frac{\partial p^{*i}}{\partial a^i} > 0,$$

grows with the group's anger. More anger makes everyone in a wealth group more willing to vote for the populists because the psychological benefits are greater.

The poor have a higher probability of voting for the populists because the smaller σ^i is, the bigger $\frac{\partial p^i}{\partial a^i}$ is. The effect of anger on the probability is greater when group i is more homogeneous.

Consider now a scenario in which the variance in the individual costs of voting for populists is the same ($\sigma^p = \sigma^r$), while the levels of anger a^i differ. Anger emerges when the group's reference point, R^i , differs from the group's indirect utility:

$$R^i \neq V^i(\beta).$$

$$a^i \equiv \frac{1}{2} \max [0, R^i - V^i(\beta)]^2 > 0$$

The probability that individuals in group i will vote for the populists is greater than zero.

Intuitively, anger may originate from different sources. For example, bias against immigrants and ignorance of actual public finance decisions are more probable among the poor than among the rich. R^p differs more with respect to indirect utility than R^r does. Hence, $a^p > a^r$, ceteris paribus.

In summary, both the rich and the poor may have probabilities of voting for the populists that are greater than zero. For a single group to do so, that group's anger must be sufficiently large. For the sake of the following discussion, we will assume the more likely situation is the one in which the poor have a higher probability of voting for populists because they have higher anger and lower variance in the individual costs of voting populists.

This scenario seems to be more in line with the empirical evidence. Dorn et al. (2018) show that poorer German counties in the period 1990–2014 had higher shares of votes for extremist parties. Guiso et al. (2017) and Algan et al. (2017) show that economic insecurity is a dominant driver of populist voting, which is in line with the fact that the poor are much more likely to be affected by economic hard times than the rich elite. Moreover, Funke et al. (2016) find that there is a rise in extremist right-wing parties after a systemic banking shock. In the same vein, De Bromhead et al. (2013) describe the emergence of right-wing parties during the Great Depression.

3.2 | Anger and its drivers

Anger arises from a difference between what the agents in a group think they deserve, R^i , and what they get, $V^i(\beta)$. This difference can be described as part of the broad, socio-economic conditions of the two groups and their sense of entitlements. In order to be specific and better understand the model, we need to more accurately define R^i .

We assume that the reference point for individual j in group i is group specific:

$$R^i \equiv V^i(\hat{\beta}^i) \tag{21}$$

$\hat{\beta}^i$ is the subjective fair policy for group i and it is derived from a modified social-welfare optimization in which group i has a self-serving bias. This means that the group sees itself as more deserving than the other group. Intuitively, this is the bailout policy that group i prefers.

Let us consider the case in which the populists claim a bailout policy higher than the optimal policy through a self-serving bias that over-represents each of the groups:

$$\hat{\beta}^i = \arg \max W^i(\beta), \tag{22}$$

$$\hat{\beta}^i = \arg \max \sum_k \pi^{ik} V^k(\beta), \tag{23}$$

$$\pi^{ii} = \lambda^k (1 + v^i) \quad (24)$$

$$\pi^{ik} = \lambda^k (1 - v^j) \text{ for } i \neq k \quad (25)$$

π^{ii} is the weight assigned by group i to itself, v^i is the self-serving bias of group i , and π^{ik} is the weight assigned by group i to group j . Intuitively, this means that group i gives itself more social weight with respect to the other group.⁹

Why does a self-serving bias, v^i , emerge? It is caused by shocks to the sense of entitlement caused by news about immigration, welfare plans or housing plans. A group's self-serving bias grows when its participants feel entitled to a better public policy for various reasons, such as when they blame immigration or the other group for getting too much public attention and resources. Self-serving bias acts as a wedge between the indirect utility of voters and their reference points.

Evidence indicates that a self-serving bias may be caused by immigration. Guiso et al. (2017) find that hatred of immigrants affects voting decisions in favour of populists. Dennison and Geddes (2019) find a correlation between the salience of immigration (from the pan-European Eurobarometer survey) and the polling of anti-immigration parties in most western European countries after 2005 (salience is defined as the indication of the most important issue affecting the individuals and/or the country). Moriconi et al. (2018) find that inflows of less educated immigrants are positively associated with increases in votes for nationalistic positions, and that this effect is stronger among non-tertiary educated voters and in response to non-European immigrants. Moreover, self-serving bias may be higher among poor people due to their higher exposure to the presence of immigrants in public spaces (Card et al., 2012). Through our lens, this means that inflows of less educated immigrants increase the self-serving bias of both the rich and the poor, but with a stronger effect on the poor, as these inflows cause greater grievement and lead to a higher probability of voting for populists in this group.

3.3 | Populist threat equilibrium

The possibility of a populist consensus can not only strengthen a populist government in charge but also influence the choice of a traditional incumbent government. We derive a new equilibrium probability, \bar{p}^i and show that it is a function of the policy $\bar{p}^i = P^i(\% \bar{\beta})$. We call this equilibrium the Populist Threat Equilibrium (PTE), as it emerges from a government that considers the emergence of the populist party as an alternative to the traditional one.

The government trades off the social welfare effects of the policy against the consequences of the probability of voting for populists. Specifically, let

$$W(\beta) = \sum_{i=1}^2 \lambda^i V^i(\beta) \quad (26)$$

be the standard Benthamite social welfare function. A benevolent social planner sets the policy to maximize:

$$W(\beta) - \sum_{i=1}^2 \lambda^i P^i(\beta), \quad (27)$$

where the general welfare loss increases as the number and size of groups voting populists rise. Note that:

$$p^i = \frac{\sigma^i - \mu}{2\sigma^i - \lambda^i a^i} \quad (28)$$

⁹It is worth noting that lower weights, π^{ii} , and higher weights, π^{ik} , will instead deliver a reference point lower than the optimal. This is related to the case in which populists propose a suboptimally low bailout rate.

Hence, we see that:

$$p^i = \frac{\sigma^i - \mu}{2\sigma^i - \lambda^i \Delta^i(\beta)} = P^i(\beta) \quad (29)$$

Specifically, if group i is angry, then:

$$P_\beta^i(\beta) = -\frac{\lambda^i}{\sigma^i - \mu} [P^i(\beta)]^2 (R^i - V^i(\beta)) \omega^i V_\beta^i(\beta) \quad (30)$$

$$P_\beta^i(\beta) = -\Phi^i(\beta) V_\beta^i(\beta).$$

Given the definition of a^i , as the policy becomes more favourable to that group (i.e. if $V_\beta^i(\beta) > 0$), anger is reduced ($-(R^i - V^i(\beta)) \omega^i V_\beta^i(\beta) < 0$) as is the probability of voting for the populists. Therefore, if the policy becomes more favourable to an angry group, then $P_\beta^i(\beta) < 0$.

Definition 1: A Populist Threat Equilibrium (PTE) consists of a vector of subjectively fair policies $\{\hat{\beta}^i\}$ and corresponding reference utilities $\{R^i\}$, a vector of probabilities of voting for the populists, \bar{p}^i , and a policy, $\tilde{\beta}$, such that:

1. Fair policies maximize the modified social welfare functions of each group, $W^i(\beta) = \sum_k \pi^{ik} V^k(\beta)$;
2. Within each group i , all members optimally define a probability of voting for the populists given the equilibrium policy, $\tilde{\beta}$, the group's reference utility, $\{R^i\}$ and the equilibrium participation of the other group's members, $\{p^{j*}\}$;
3. The government's policy maximizes the social welfare function inclusive of the cost of voting for the populists (29), taking as a given the groups' reference utilities $\{R^i\}$ and given how the policy affects equilibrium participation through (32).

The equilibrium policy maximizes (29), yielding:

$$W_\beta(\beta) - \sum_{i=1}^2 \lambda^i P_\beta^i(\beta) = 0 \quad (31)$$

A benevolent government trades off the direct welfare effects of the policy, $W_\beta(\beta)$, against the disruptions caused by the populist vote. Given (30) and (31), the optimality condition can be rewritten as:

$$\sum_{i=1}^2 \lambda^i [1 + \Phi^i(\beta)] V_\beta^i(\beta) = 0 \quad (32)$$

where $\Phi^i(\beta) > 0$ if $a^i > 0$, and zero otherwise.

Equation (32) provides the full characterization of the equilibrium policy, $\tilde{\beta}$.

All in all, a PTE policy solves a modified social planner problem in which each group i receives the extra weight $\Phi^i(\tilde{\beta}) \geq 0$. If the extra weight differs between the rich and the poor, then there is a suboptimal choice of $\tilde{\beta}$. Moreover, only aggrieved groups get extra weight in the welfare function—they exert some influence over policy.

More generally, a group's political influence reflects the following features. First, more homogeneous (low σ^i) and larger (high λ^i) groups are more influential in voting for populists. Second, a more pronounced self-serving bias (high v^i) implies that group members become angry more easily and, hence, are more prone to vote for populists.

3.4 | Banking recessions and populist consensus

Finally, our framework makes it possible to compare banking recessions and normal recessions. In order to do so, we start with the extant literature on the specialness of banking (financial, balance sheet, and bubbly) recessions (Jorda et al., 2015). The main results of this research can be summarized as follows: all recessions are not created equal: the post-recession losses (PRL) are not random; and the PRL are more prolonged and painful with a financial crisis (PRFC) as the driver, while the PRFC is more prolonged and painful with a credit boom as the driver.

Therefore, we assume that a financial recession has a stronger impact on the banking system. We define $\tilde{\beta} = \beta(1 - F)$, where F is a positive wedge between financial and normal recessions. This setup means that a financial recession creates a stronger shock to the banking system, all else equal.

Anger increases, as the indirect utility is lower than before:

$$a^i = \frac{1}{2} \max [0, R^i - V^i(\tilde{\beta})]^2$$

We know that $a^i_{\tilde{\beta}} < a^i_{\beta}$ for $i = \text{rich, poor}$. Intuitively, both the rich and the poor are angrier during a financial recession than a normal recession. This outcome is consistent with Funke et al.'s (2016) results indicating that financial recessions lead to greater consensus regarding extreme parties than normal recessions.

4 | CONCLUSION

Populism can have plenty of general economic and psychological explanations, including cyclical recessions and unemployment, trade shocks, hatred of immigrants, and demand for redistribution. In this paper, we highlighted another potential channel: the general motivations mentioned above can lead citizens to start a democratic riot by supporting the banking policies that populist parties propose for a bailout intervention after a systemic banking crisis.

The consensus decision is influenced by the citizens' wealth group, and it is genuinely behavioural. Therefore, the public support for bailout policies becomes highly dependent on a number of different motivations that have nothing to do with the bailout policies as such. The democratic riot channel can explain the sight-unseen consensus in favour of populist banking policies, which are far from homogeneous.

This analysis can be further enriched in several directions:

- a. Monetary-stability risks and citizen heterogeneity. Monetary instability is widely assumed to be a social cost that is borne equally by all individuals. If we were to associate monetary instability with specific idiosyncratic risks, we would assume that citizens can be also heterogeneous in their ability to address such risks through hedging, with some individuals bearing—or feeling that they bear—higher costs due to monetary instability (i.e. *inflation-adverse* citizens). Allowing for this kind of heterogeneity could lead to further differentiation between traditional and populist parties.
- b. Income and citizen heterogeneity. Labour income is assumed to be the same for all individuals. In the presence of income heterogeneity, the distributional effects are likely to increase. Moreover, income heterogeneity can be correlated with other forms of asset heterogeneity. This can lead to additional interesting trade-offs.
- c. Public debt, tax pressure and interest rates. In the focal context, government debt is only issued to address the pandemic-related recession, taxes are only raised to service that debt and the interest rate are consistent with the long-term, risk-free interest rate. These are three simplifying assumptions. The insertion of initial taxation and initial debt into the framework would increase its complexity but probably not have substantial consequences for the overall rationale. In contrast, interest rate endogeneity that depends on the stock of debt is likely to exacerbate the policy trade-offs and, consequently, the relevance of the political distortions.

- d. Traditional parties. The traditional party's behaviour is assumed to be perfectly consistent with socially optimal planning. This assumption has been used to disentangle the differences between traditional parties and populist parties in the clearest way. However, we also discussed the possibility of a populist consensus that could influence the choice of a traditional incumbent government. In this perspective, the possibility of competitive, sub-optimal policies between traditional and populist parties can lead to other intriguing trade-offs. Among these trade-offs, in principle we can include the possibility to consider the interactions between domestic traditional parties, domestic populist parties and foreign populist parties, mixing what we defined the internal and external channels of populist contagion.
- e. Central bank and monetary policy. The central bank regime and the monetary policy are assumed to be perfectly consistent with socially optimal planning. We also assume that all parties—including the populist parties—do not discuss these features. This assumption can be modified in two ways. On the one hand, some researchers argue that the rise of populism may harm the consensus in favour of central bank independence and monetary policies consistent with such a regime (De Haan & Eijffinger, 2017; Goodhart & Lastra, 2017; Rajan, 2017; Rodrik, 2018). From an empirical point of view, the relationship between one aspect commonly attributed to populism—namely, nationalism—and central bank independence has been empirically examined (Agur, 2018), while the relationships between both right- and left-leaning populism and central bank independence have been discussed from a theoretical perspective (Masciandaro & Passarelli, 2019). On the other hand, it is natural to wonder whether cases of political and/or bureaucratic capture could trigger deviations in the concrete monetary policy action from the (supposed) long-sighted perspective, such as those documented in the historical case of political pressure for partisan monetary policies (Abrams, 2006).

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APPENDIX A

The relationship between financial imbalances and votes for populist parties: some descriptive analyses

Here, we analyse the relationship between financial variables and political outcomes in order to descriptively assess whether imbalances in financial and banking industries have been correlated with voters' behaviour during elections.

We use data related to political outcomes from the Timbro Authoritarian Populism Index (TAP), an initiative run by the free-market think tank Timbro. We consider the share of votes for populist parties during every election from 2010 to 2019. The index reports for each year the shares of votes for populist parties in the previous election. The data set contains longer series, but we are constrained by the availability of financial data. The index heavily relies on secondary sources¹⁰ and, to the greatest extent possible, it follows typical and existing categorizations. In general, it is not as difficult to categorize political parties as one might expect. Despite some disagreement on labels, there is a general consensus among scholars in this regard.

We retrieved financial data from the International Monetary Fund's Financial Soundness Indicator. Specifically, we rely on three variables: regulatory capital to risk-weighted assets, non-performing loans (NPLs) net of provisions to capital, and NPLs to total gross loans. We chose these variables because, when considering the economy as a whole, capital- and asset-related variables may serve as proxies for financial soundness, while NPLs may serve as a proxy for financial imbalances or turmoil. On the one hand, higher regulatory capital and assets would allow firms to better absorb negative financial shocks, thereby limiting spillovers to the financial and/or banking system. On the other hand, larger shares of NPLs weaken firms' abilities to absorb such negative shocks, thereby leading to bankruptcies, losses for banks and, eventually, to financial crisis. Therefore, as our theoretical model starts from the assumption that financial and banking imbalances increase the share of votes for populist parties, we expect a negative correlation between capital- and asset-related variables and shares of votes for populist parties, and a positive correlation between the NPL variables and shares of votes for populist parties.

Figure A1 shows the relationships between regulatory capital to risk-weighted assets and the shares of votes for populist parties in elections in several European countries and the UK. We also plot fitted values and the 95% confidence interval. The analysis shows a negative correlation between the proxy for financial stability and the shares of votes for populist parties. Therefore, this descriptive evidence is in line with the assumption that financial imbalances and the rise of populist parties are associated. Figures A2 and A3 show the positive relationship between NPLs and shares of votes for populists. Being NPLs a standard metrics for financial imbalances, also this evidence is consistent with the view that financial instability and consensus for populist parties are associated.

¹⁰These sources include scholarly literature on the European party system; ideological labels from internet sources, such as parties-and-elections.eu and Wikipedia; and the Chapel Hill Expert Survey (CHES), a quantitative summary of where parties belong on the left-to-right spectrum combined with additional dimensions that serve to identify right-wing populists (but not left-wing populists) using, for instance, views on minority rights, immigration and multiculturalism.

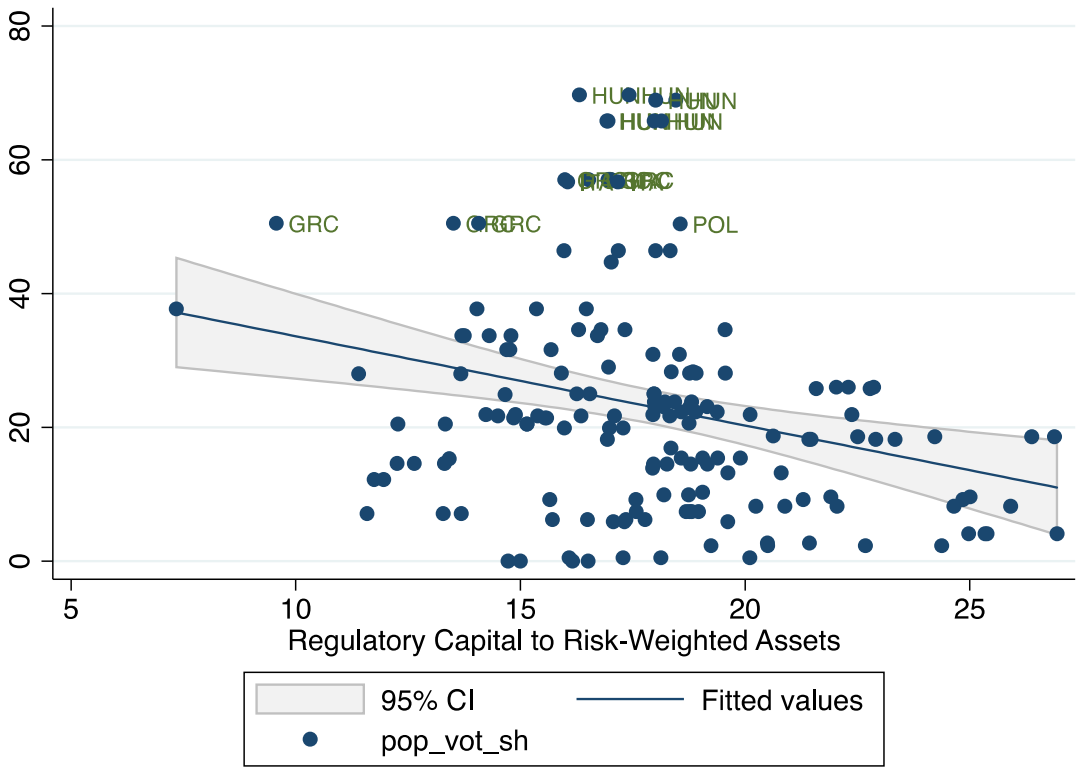
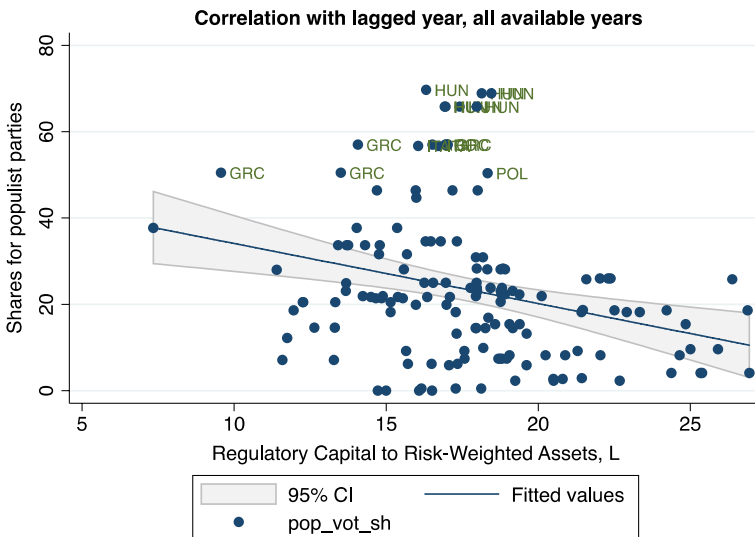


FIGURE A1 Correlation between shares of populist parties and ratio of regulatory capital to risk-weighted assets

All available years (2012/2019)

Correlation between shares for populists and current (up) and lagged (down) regulatory capital to risk-weighted assets.



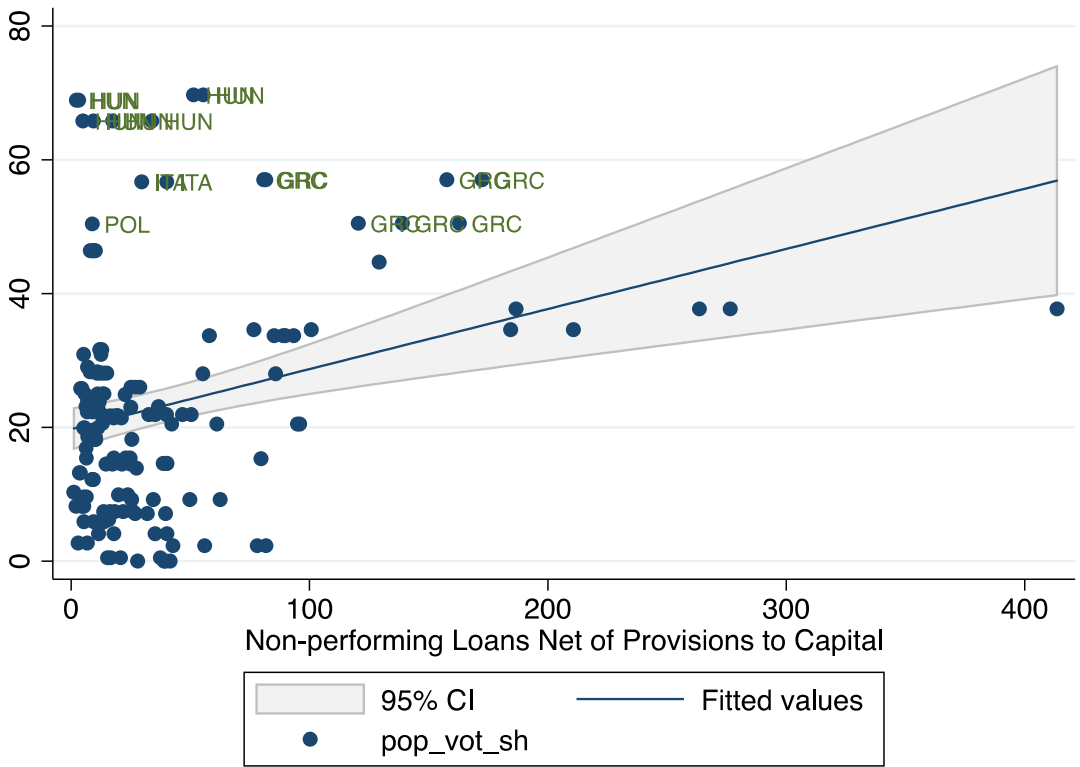
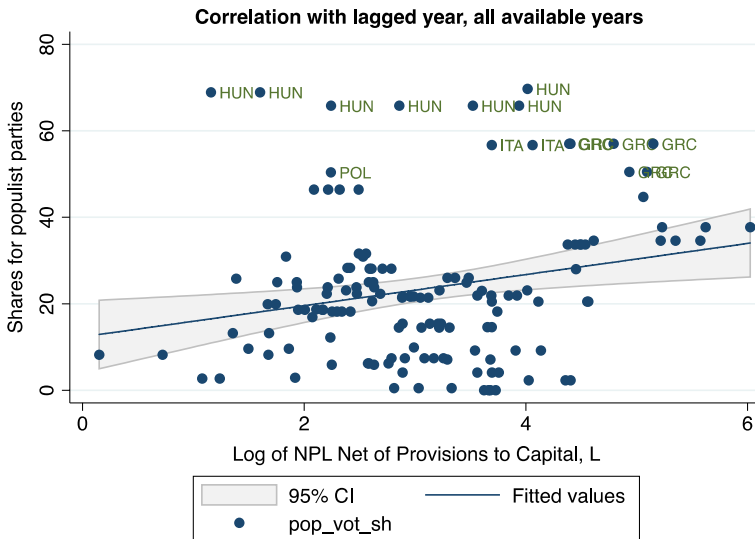


FIGURE A2 Correlation between shares of populist parties and non-performing loans net of provisions of capital

Correlation between shares for populists and current (up) and lagged (down) log of NPL net of provision to capital.



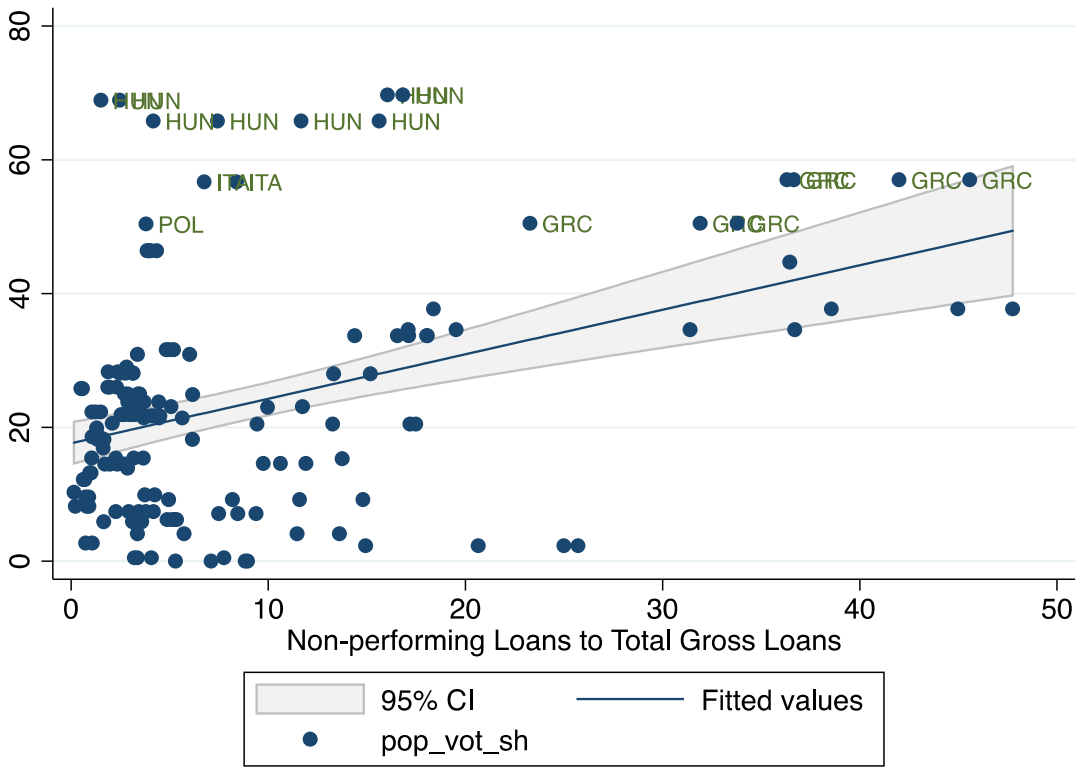
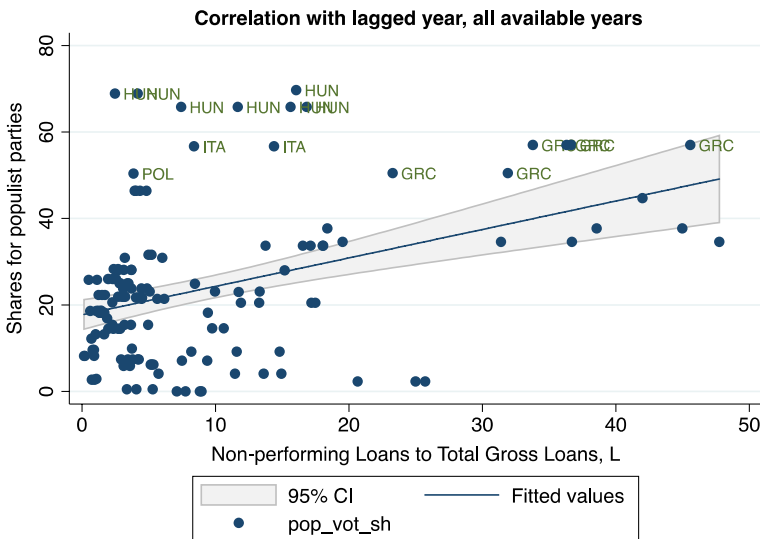


FIGURE A3 Correlation between shares of populist parties and ratio of non-performing loans to total gross loans

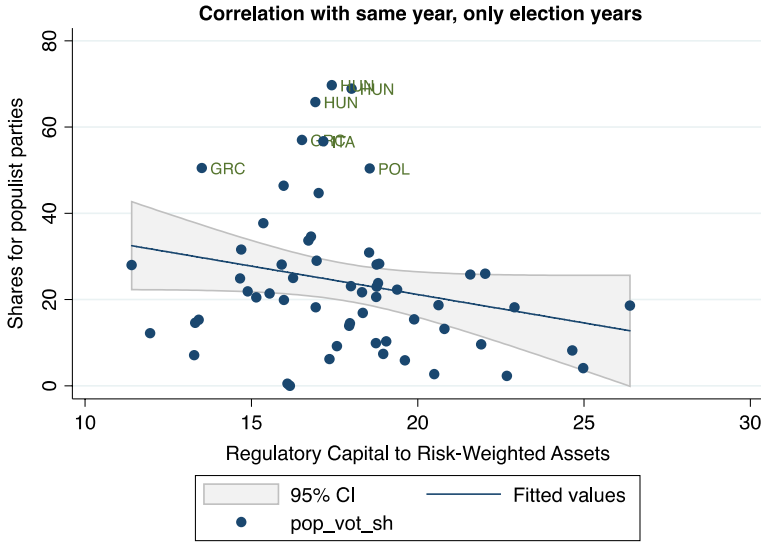
Note: for the sake of completeness, we checked the same associations changing the definitions of the relevant variables (see below): financial imbalances and populist consensus follow to go hand in hand

Correlation between shares for populists and current (up) and lagged (down) NPL to total gross loans.

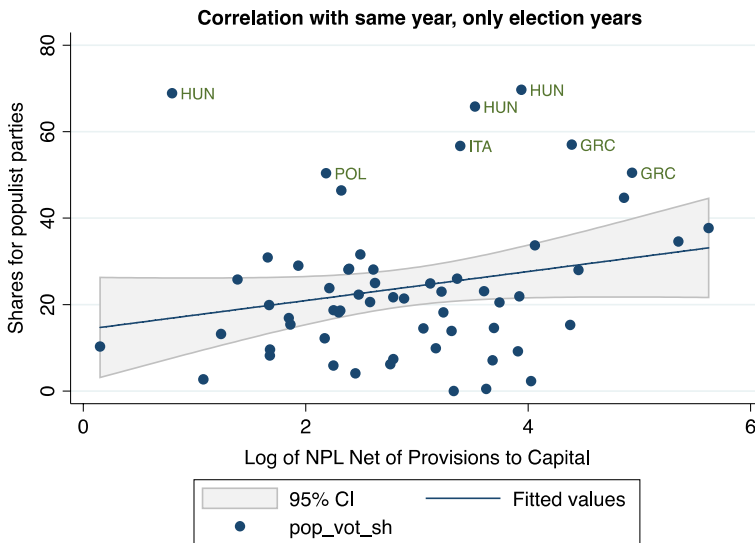


Only election years

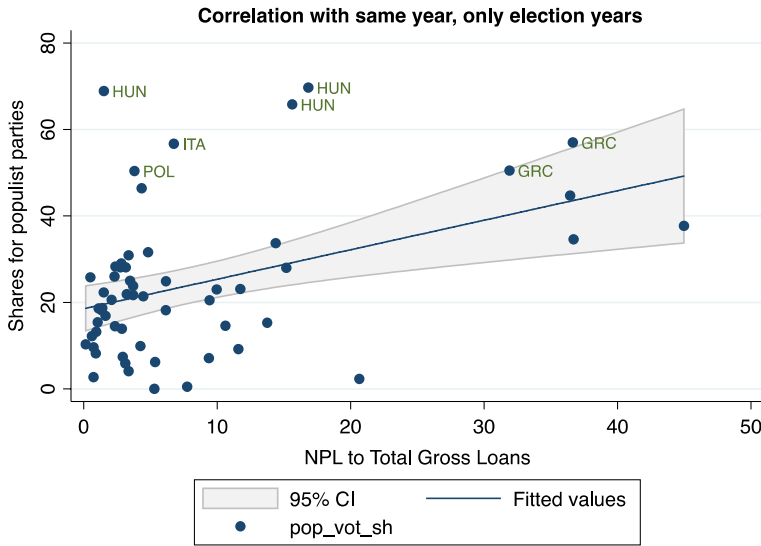
Correlation between shares for populists and current regulatory capital to risk-weighted assets.



Correlation between shares for populists and current log of NPL net of provision to capital.



Correlation between shares for populists and current NPL to total gross loans.



APPENDIX B

Populism and banking policies: Poland versus Italy

In this appendix, we consider two examples of how populist parties took advantage of popular anger originating from banking crises and used it for their own propaganda. Specifically, we first consider the 2015 Swiss franc (CHF) revaluation in Poland. Thereafter, we shed light on how the Five Star Movement (the main Italian populist party) first opposed the banking bailouts of the *banche venete* when it was part of the opposition, and then approved interventions to save Carige Bank and the Popular Bank of Bari in 2019 when it was part of the government.

Poland

On January 15, 2015, the Swiss National Bank (SNB) suspended its exchange rate floor of 1.20 EUR/CHF and allowed the CHF to appreciate. The move came in response to strong exchange-market pressure on the CHF and growing domestic criticism of the peg. The SNB's announcement caught financial-market participants and policy-makers in Switzerland and abroad by surprise. In the initial hours following the decision, the exchange rate became so volatile that Swiss banks temporarily stopped converting CHF into EUR. Several major currency brokers incurred huge losses and some went bankrupt.

Immediately after the CHF shock, Poland saw some scattered protests among CHF borrowers. Nonetheless, the centre-right coalition government was initially reluctant to offer any meaningful support for CHF borrowers. The issue gained momentum during the May 2015 presidential campaign. In August 2015, during the summer campaign season for the October elections, the PO (the ruling party) introduced a bill that offered to the Polish households in smaller homes the opportunity to convert their CHF mortgages into loans denominated in Polish zloty (PLN). The bill proposed that the resulting adjustment costs would be shared roughly equally between borrowers and lenders.

The main opposition parties, the PiS and the Democratic Left Alliance, responded by proposing a more generous conversion scheme. They presented an amended bill in parliament that broadened eligibility for loan conversion and significantly increased the costs for banks. The incumbent PO lost the October 25, 2015, election by a wide margin, and its vote share fell by 15 percentage points from the 2011 elections. The PiS rose to power with 38% of the popular vote (an increase of 8 percentage points relative to 2011).

Alquist, Copelovitch and Walter (2020) use a survey undertaken before the 2015 elections and an innovative research design to show that political parties can exploit external economic shocks, that voters form preferences based on the parties' policy promises and that these preferences translate into voting behaviour. Polish voters repaying CHF-denominated loans were directly exposed to the CHF shock, favoured generous bailout policies and were more likely to switch their votes to the opposition party that offered such policies (i.e. the PiS). This stood in contrast to the policy preferences of a demographically similar group (i.e. those who no longer had CHF-denominated loans), who were far less supportive of government intervention. Those without any exposure to currency borrowing were less likely to have an opinion and less supportive of government intervention. Nevertheless, using simple information experiments, these researchers found that voters' opinions were malleable at the margin in ways that increased support for pro-borrower intervention. Among the unexposed, those supporting the most government intervention also tended to support the populist-right PiS and hold more anti-immigrant views.

Italy: The case of the Five Star Movement

The Five Star Movement, an anti-establishment party in Italy, consistently criticized bank bailouts carried out by governments led by the Democratic Party (PD) and used this issue as a main point in its agenda. In 2016, the government bailed out the Monte dei Paschi di Siena bank. Luigi di Maio, the leader of the movement and Italy's foreign minister, criticized the decision, claiming that the movement would have never spent public funds to save banks.

In 2017, former minister Barbara Lezzi led other members of parliament in throwing false banknotes during the approval of a law allocating EUR 4.7 billion to save two Venetian banks (Banca Popolare di Vicenza and Veneto Banca) and to avoid bail-in. They claimed that taxpayers' money should not be spent to save banks and accused the ruling PD of colluding with the financial establishment. Moreover, the government's decision saved depositors and holders of senior bonds, while junior holders were penalized. Although this difference was the result of the nature of the specific bonds, many party members exploited it by claiming that the government had penalized citizens in favour of the establishment.

The movement's approach to bank crises changed drastically when, in March 2018, the party won the election (although did not have a majority) and formed a government in coalition with the right-wing sovereign party "Lega." In 2019, this "yellow-green" government saved the commercial Carige Bank by collateralizing bonds for EUR 300 million. It also ring-fenced EUR 1 billion to cover potential future capital injections. The government justified this decision by saying that it was necessary to guarantee the daily functioning of the bank and, therefore, to protect thousands of depositors and creditors.

When confronted with the fact that it had implemented the same policies as previous governments, the party claimed that the goals were completely different. According to party members, the government led by the PD saved Venetian bankers while shareholders and holders of junior bonds lost all of their funds. In contrast, the party claimed, the government had safeguarded citizens' savings in the Carige Bank case.

When the Popular Bank of Bari experienced financial turmoil in 2019, the party cooperated with the PD to introduce measures to save the bank and avoid a bail-in. Some analysts believe that this decision was necessary for the party, as the Apulia region, where the bank was headquartered, was home to an important electoral constituency for the movement. The government decided to invest around EUR 1.5 billion using two government-controlled



public companies that took control of the bank. In addition, another public company bought EUR 2 billion in NPLs for EUR 500 million.

When the party explained this decision on its blog, it highlighted that the decision would have the following effects: honest citizens would be saved; no mercy would be given to the managers responsible for the bankruptcy; Italy would have a public investment bank, thereby aligning itself with other European countries; the government would encourage the Bank of Italy to prosecute the managers responsible; and the government would ask the parliamentary commission responsible for banks to share the full names of the debtors responsible for the bankruptcy. These claims reveal the populist and anti-establishment nature of the movement.

Although the party explained the reasons for its decisions and claimed that the way it saved the banks in turmoil differed from the methods used by previous governments, the tools it used and the effects were in line with those of previous governments.