Public Finance and Right-Wing Populism

Linuz Aggeborn and Lovisa Persson

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Abstract

We build a public finance model that explains why voters vote for right-wing populists, and also under which conditions established politicians will adopt a right-wing populist policy platform. Voters with lower private income have a stronger demand for basic public services at the expense of spending on a global good; generosity of refugee support systems, foreign aid, and environmental protection. Low income voters are thus more prone to support right-wing populists who oppose spending on such global goods. We conclude that established politicians that are challenged by right-wing populists will implement a policy with no global good spending if the relative cost of the global good is high enough. Additionally, adoption of right-wing populist policy is more likely when the economy is in a recession.

Key-words: Right-wing populism, Agency, Immigration
JEL Classification Codes: D72, H39, D70

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1   Introduction

The 2016 U.S. Presidential Election took place against the backdrop of a financial crisis, rising income inequalities and import competition from abroad. After Donald Trump's surprising win, political pundits, researchers and the media have set out to try and understand the logic behind his anti-immigration and anti-globalization agenda. The Trump platform, and the political sentiments of his voters, have their counterparts in several European countries, such as: France (The National Front), Germany (Alternative for Germany) and in Sweden (Sweden Democrats). The reality painted by these right-wing populist movements is typically one involving zero-sum games with regards to both public resources and jobs. This message resonates with parts of the electorate that are discontent with immigration, economic stagnation and import competition from developing countries.

In this paper we model common political themes of right-wing populist parties and candidates. We propose that right-wing populist parties compete with established parties in a conflict space that concerns how to distribute public spending on two types of publicly provided goods. While established political parties and their supporters prefer to spend public resources on accepting immigrants and refugees, on providing foreign aid, and on protecting the environment, the benefits of which are more global in nature; right-wing populists and their supporters put relatively more weight on "basic" public services (at least from a residential point of view), such as: infrastructure, defense, social services, education and health care. For instance, Trump wants to increase domestic government spending on infrastructure and defense with the possibility of increased domestic employment. At the same time, one of the most distinct features of Trump's policy agenda is the negative stance towards immigration, displayed most notably in two executive orders: to construct a boarder wall against Mexico, and to ban travelers from certain Muslim majority countries. Front National and the Sweden Democrats, both politically active in more extensive social welfare states, have commonly used a tactic whereby spending on social security and social care for current residents (or nationals) has been pitted against spending on support systems for refugees.

We adopt a socioeconomic approach (as opposed to a sociocultural or xenophobic approach) and propose that low income is the main source of variation in voter support for right-wing populists.[1]   When negative shocks hit the economy, voters

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[1]This is in line with the "economic self-interest" explanation of support for right-wing populist policies, see Malchow-Møller et al. (2008). Rydgren and Ruth (2011) takes the socioeconomic (social marginality) explanation to Swedish municipal data and find that support for the Sweden Democrats is positively correlated with the municipal unemployment rate, and negatively correlated with the educational level and regional economic growth. Coffé et al. (2007) on the other hand, find that the Belgian right-wing populist party Vlaams Blok has higher support in high income/low unemployment municipalities.

with low incomes are more vulnerable and more likely to become dependent on domestic spending or publicly provided social safety net. In other words, voters with low incomes are more dependent on the "basic" services that the public sector provides, and thus they will be more supportive towards right-wing populist policies that make cuts to refugee programs, foreign aid, and environmental improvements since this frees up resources to spend on the services on which they rely. We also model explicitly the decision of established politicians of whether to (opportunistically) adopt right-wing populist policies in order to win elections.[2] Our model makes two central predictions; the first is that established politicians will adopt right-wing populist policies if the alternative cost of the global good (refugee program, foreign aid, environment) is high enough. The second prediction is that established politician opportunism is more likely in a recession compared to when resources are plenty.

Rodrik (2017) argues that the recent rise in support for populists is a consequence of globalization. Free trade may have positive effects on the economy overall, but certain domestic groups are adversely affected. These groups then turn their political support to populists who addresses the "cleavages" that globalization has produced, see Rodrik (2017). Empirical literature has established a link between import competition from China and community level support for right-wing populist parties and candidates, see Malgouyres (2017) for evidence on French canton level, Dippel et al. (2015) for evidence on German county level, and Autor et al. (2016) for evidence on American district level. One possible explanation is that low-skilled workers demand job protection, and thereby cast their votes on NAFTA- or EU-skeptic political candidates. We propose an additional and complementary mechanism to the purely protectionist one; workers in risky and competitive industries are more dependent on public resources. When jobs are lost, the means of maintaining yourself and your family must come from somewhere. Welfare contributions could be a solution to this, see (Autor et al., 2013), but it could also take the form of government spending programs on infrastructure that could provide new employment opportunities.[3] In other words, even though job competition and public resource competition could be explanatory factors on their own, we propose that the two can also be connected;

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[2] van Spanje (2010) presents evidence from 11 Western European countries that parties all over the political spectrum re-position themselves in terms of immigration policy in order to accommodate the electoral threat from right-wing populist parties. Guiso et al. (2017) also find empirical support for the hypothesis that non-populist parties realign themselves to counter the populists.

[3] Guiso et al. (2017) demonstrate a positive link between individual income insecurity and support for populists using survey data.

public resource competition can be seen in the light of increased job competition.[4]

Our model highlights some other important aspects of right-wing populist support, namely the role played by economic crises and income inequality. That support for populist parties go up after times of economic turmoil has been shown in recent studies (see Funke et al. (2016) and de Bromhead et al. (2013)). We build on this empirical evidence by modeling low income voters' preferences and right-wing populist preferences as converging during economic recession. In boom periods, however, the right-wing populist support of low income voters depend on the income gap between themselves and the established politicians (and their supporters). The larger the income gap, the more prone are low income voters to support the right-wing populist.

We propose that the policy conflict of right-wing populism is more about what type of spending the government should prioritize, rather than what size the government should be. This is in line with how right-wing populists have realigned themselves in the traditional left-right economic dimension. Whereas the Tea Party was an anti-government movement, we see a different approach in Donald Trump who has suggested increased public spending in infrastructure, while at the same time promising during the campaign that he would not make cuts to Medicare, Medicaid or Social Security. Similar reorientation towards the center in the size-of-government policy dimension has been documented in European right-wing populist parties. Consider the earlier analysis in Kitchelt (1995), where electoral success of European right-wing populists is argued to depend on their ability to appeal to free-market solutions, and compare it with a more recent description in Akkerman (2015), where electoral competition between right-wing populists and established parties takes place in the anti-immigration and nationalistic conflict dimension.[5] Rydgren (2005) proposes that the weakening of traditional political cleavages (socioeconomic/size-of-government), presents political opportunities for right-wing populists to emphasize an alternative cleavage (sociocultural) where they are clearly positioned and can address certain voters' concerns about the post-industrial society, where issues such as feminism, multiculturalism and environmental issues are increasingly politically prioritized. Earlier literature suggests that party convergence in the economic conflict space constitutes a political opportunity for right-wing populist parties to be successful, see for instance Rydgren (2005), Arzheimer and Carter (2006) and Van der Brug et al. (2005).

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[4]Additionally, even though low-skilled workers in globally competitive sectors might have higher incomes than workers in parts of the service sector, or than welfare beneficiaries, the fact that workers in these industries are at a high risk of becoming unemployed translates into lower permanent incomes.

[5]Eger and Valdez (2015) also describe the ideological transformation that right-wing populist parties have undergone in recent decades.

We choose the terminology "right-wing populism" because it has been commonly used as an umbrella term when referring to parties on the far right. According to the classification scheme in Mudde (2007), "right-wing populism" captures both neoliberal and nationalist populists. However, we consider the terminology of "right-wing populism" relatively safe to use because of the current dominance of the nationalist over the neoliberal wing. "Populism" is described in Mudde (2007) as an ideological feature centered around antagonism between "the pure people" and the "the corrupt elite". The ideology of "populism" is signified by a "thinness" in the sense that any type of left-right ideology can be attached to it. Moffitt (2016) argues that modern populism is best understood as political style trying to appeal to the people through manners not commonly associated with established politicians and that populists focus on a perceived state of crisis in a country.[6] We argue that the parties we attempt to describe in our model fit both of these descriptions well, but our paper does not contribute to this particular discussion on how right-wing populism exactly should be defined. Whether "populism" in the form of critique of established media, the political class, or political correctness should be described as ideological or as a kind of style/performance is therefore less relevant for our purposes.[7]

There are few earlier theoretical papers in economics which explicitly describe a right-wing populist policy conflict. In a paper by Acemoglu et al. (2013) the starting point is to describe left-wing populism in the context of South American politics. In a model extension, the authors explore the possibility of right-wing populism, which they describe as when an incumbent politician adopts policies that are situated to the right of the median voter in order to signal that she is not "captured by the left-wing lobby such as trade unions". This model could thus be said to relate to the concept of populist ideological "thinness", as described by Mudde (2007), where the elites and the people clash in an abstract policy space. In Tella and Rotemberg (2016), populism is modeled as voter demand for incompetent leaders as a way of insuring against elite betrayal.

Right-wing populist parties are often referred to as "protest parties". Whereas

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[6]See also Gidron and Bonikowski (2013) and Muis and Immerzeel (2016) for a discussion on the different aspects of "populism".

[7]Other terms have been used when referring to the parties we have in mind; for instance, Rydgren (2005) refers to "extreme right-wing populist parties" (ERPs) as relying on an ethno-pluralist doctrine combined with anti-political establishment populism. Vlaams Blok in Flanders has been both referred to as "extreme right-wing" in Coffé et al. (2007), and "anti-immigrant" along with several European parties in Van der Brug et al. (2005). Pim Fortuyn is described as a "right-wing populist" in Koopmans and Muis (2009). Despite the variety of labels, there seems to be an agreement on which parties researchers have in mind, (Moffitt, 2016, chapter 3). For instance, the one and same party, the Sweden Democrats, have been referred to as: "single-issue" (Erlingsson et al. (2014)), "anti-immigrant" (Bolin et al. (2014)), and "radical right" (Loxbo (2010)), in the previous literature. See also Woods (2014) and chapter 1 in Rydgren (2006) for a discussion about labels and the definitions.

protest voters are depicted as strategically sophisticated in economics models, they are emotively expressive in political science theory, see Van der Brug et al. (2000) for a political science perspective. To summarize the economics literature on protest voting would be to say that protest voting is an act of not choosing sincerely among the present political alternatives, but instead choosing a less preferred alternative so as to signal preferences and induce policy shifts in parties, see Piketty (2000)[8], Myatt (2017), Kselman and Niou (2011), Castanheira (2003)[9]

Since both strategic and purely populist mechanisms have already been covered in the earlier theoretical literature, we instead turn our focus to the actual policy conflict at the center of right-wing populist platforms. We specify the policy conflict as a within-budget distributional conflict, and we describe voters as materialistically motivated with respect to the utility they derive from publicly financed goods. The electoral and political rationale presented in this model is one aspect of right-wing populism among several others. For instance, job competition could be an important explanation in itself. Furthermore; xenophobic, nationalistic, socially conservative and authoritarian ideas could also be important determinants of right-wing populist support, even without any materialistic or economic concerns as driving mechanisms.

2   The Model

We begin this section by presenting a summary of the timing in the model. Our model is inspired by political agency models, primarily Besley and Smart (2007), where the decision making problem of an incumbent (policy-motivated) politician is at the center of the analysis. There are two time periods, and in each period the incumbent politician makes decisions concerning government spending on two different types of goods: basic goods and global goods. The size of the government is exogenously given in the model, given that we focus on a within budget distributional conflict. In between the two time periods there is one election where two types of voters decide to vote for either the incumbent or the challenger. Voters do not directly observe the true type of the incumbent politician, meaning that they have to infer the type based on the implemented policies. Voters then choose to vote for the candidate that has the highest probability of being their preferred type of politician. The incumbent politician might deviate from his most preferred policy in the first period if that gets him reelected to a second period, where he is free to

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[8]While Piketty (2000) refers the model as describing the phenomenon of "communicative voting" and not "protest voting", the mechanism has a lot in common with what is usually referred to as the protest mechanism.

[9]Earlier literature also highlights the difference between protest and strategic voting, where strategic voting emerges when the most preferred party is unlikely to win, and protest voting, however, takes place even though the preferred party is expected to win, see Kselman and Niou (2011).

implement his most preferred policy without worrying about reelection incentives. We return to the timing of the model in Section 2.3.

Let us now discuss the modeling of politician and voter preferences. Politicians can be of an *established* type or of a *populist* type. These two types differ in their preferences for two goods. While the established type wants spending on the basic good, as well as on the global good, the populist type wants to spend all resources on the basic good, and nothing at all on the global good. The basic good represents basic services such as infrastructure and defense spending, but may also represent for example health care and social care. The global good represents generosity of the refugee support system, foreign aid, environmental protection, peace-keeping missions in other countries and contributions to immigrants. For both types of voters, basic services satisfy basic needs. A generous asylum system, or a healthy environment, is only demanded if public resources are plentiful or if individual private consumption is high enough. Therefore we model voter preferences for the two goods as being generated by differences in private consumption. Private consumption and basic services are modeled as perfect substitutes and as such, *poor* voters always want a higher level of basic services than *rich* voters. If public resources are scarce, the preferences of the poor voters are perfectly aligned with the populist option which is to spend everything on basic services.[10]

What are the important incentives in the model that drives the results? In a two period model, there are electoral incentives in the first period but not in the second. The politician that is in office in the last period can thus implement his or her preferred policy, while the politician in the first period maximizes total expected utility while taking into account how his or her actions in the first period affects reelection probabilities. The problem for voters is to maximize second period utility by voting for the incumbent or the challenger depending on who is most likely their preferred type. If poor voters are in a majority, incumbent populists can implement populist policies and be reelected, since the preferences of the incumbent and the poor voters are aligned. On the other hand, if poor voters are in a majority and the incumbent is an established politician, he will only deviate from his own preferred policy, which includes spending on the global good, if the costs of this good are high enough.

There are two types of information asymmetries in the model. Let us return to the dilemma the American electorate as an illustrating example. Neither we as researchers nor the American voters know what Donald Trump's true type is.

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[10]One inspiration for modeling the relationship between these two goods in such a way comes from the "hierarchy of needs"-model by Maslow (1943). According to this theory, an individual's moral needs – as part of a wider self-fulfillment strive – can first be fulfilled as long as the individual is satisfied in terms of basic needs. The preference for the global good can also be described as an expression of strong reciprocity, see Fehr and Fischbacher (2003)

Trump has had various political affiliations throughout the years and he has changed his public opinions many times. What does his utility function really look like? Since voters can never be certain whether the populist policies implemented by incumbents are manifestations of true preferences or whether they are short-term strategic maneuvers to win votes, we adopt a framework with hidden politician types as in the agency model of Besley and Smart (2007). We thus combine the large literature on political agency with the literature on policy-motivated politicians.[11] A second information asymmetry in our model regards the relative cost of the two goods, which is only observed by the incumbents and not by the voters.[12] The realization of the relative cost variable is the driving mechanism in our model and determines the action of the incumbent politician. Since voters neither know the politician type nor the realized value of the relative cost variable, voters update their expectations on the incumbent's type by mapping implemented policies and expected incentives of the politicians. Voters elect the incumbent over the challenger if the posterior probability that the incumbent is their preferred politician type is higher than the prior probability.

2.1   Voters

Voters receive utility from two goods that are publicly provided; a basic good g and a global good h. Besides these goods, voters also get utility from private consumption c_v, which enters the model as a perfect substitute to the basic good. We assume two groups of voters: **p**oor voters o and **r**ich voters i, who differ in their levels of private consumption such that $c_i > c_o$. Voters receive utility in each time period t according to the utility function in Equation 1.

$$U_{vt} = h_t + G(g_t + c_v) \tag{1}$$

Voters have linear preferences in the global good h_t and strictly concave preferences in the basic good g_t such that $G'(\bullet) > 0$ and $G''(\bullet) < 0$.

We assume the following public budget constraint.

$$T_t = g_t + \theta_t h_t \tag{2}$$

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[11]See Besley and Coate (1997), Osborne and Slivinski (1996) and Alesina (1988) for seminal papers on policy-motivated politicians. The first papers to focus on agency and incumbent behavior was Barro (1973) and Ferejohn (1986).

[12]This assumption is in line with the conclusions presented in Caplan (2008) where American voters were demonstrated to have poor knowledge about the relative cost of different publicly provided goods.

Our focus on a within budget distributional conflict means that the tax rate in our model is exogenously given. However, the revenue level T_t can be either high (boom) or low (recession) depending on the realization of a macroeconomic shock. The level of resources T_t is i.i.d. in each period with $T \in \{H, L\}$ and $Pr(T = H) = \phi$ and $H > L$. The relative cost of the global good θ_t is independently drawn from a uniform distribution $\theta \in [\underline{\theta}, \overline{\theta}]$ with expected value θ_E. Voters do not observe the realized value of θ_t but they observe the parameters of the probability distribution. In order to simplify notation, the time subscript t is dropped when characterizing voters' static maximization problem below.

$$\max_{g,h} U_v = h + G(g + c_v) \quad \text{s.t.} \quad T = g + \theta h \tag{3}$$

The voters' optimal bundles g_v^* and h_v^* can be represented by the following equations, where $G_g^{-1}(\bullet)$ is the inverse of the first derivative of the function $G(\bullet)$.

$$g_v^* = G_g^{-1}\left(\frac{1}{\theta}\right) - c_v \qquad h_v^* = \frac{T + c_v - G_g^{-1}\left(\frac{1}{\theta}\right)}{\theta} \tag{4}$$

From the first order conditions it is clear that demand for global good h increases in public resources T, while demand for basic good g is entirely determined by the relative cost variable and private consumption. Consider our two different voter groups; poor voters demand more of the basic good g for all levels of public resources than rich voters since poor voters have less private consumption. We also make the following assumptions regarding poor voters' optimal policies:

Assumption 1.

$$G_g^{-1}\left(\frac{1}{\underline{\theta}}\right) - c_o \geq L \qquad\qquad G_g^{-1}\left(\frac{1}{\overline{\theta}}\right) - c_o < H$$

Assumption 1 states that poor voters' optimal policy in a recession $(T = L)$ is a corner solution such that $g_o^* = L$. In other words, the value of the relative cost shock θ can never be so low so that poor voters prefer an interior solution in a recession. However, in a boom $(T = H)$ poor voters' optimal policy is an interior solution with positive levels of both goods.[13] The relationship between resource level and the demanded level of the two goods illustrates how voters prioritize between two different needs. Only if public or private resources are high enough the preferences allow for spending on the "luxury" good h_t.

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[13]While poor voters strictly prioritize the basic good when resources are low, we additionally assume that rich voters' consumption is such that they prefer an interior solution in both a boom and a recession.

2.2 Politicians

Politicians, j, can be one of two types: **e**stablished e or **p**opulist p. The established politician has policy preferences that are identical to rich voters, whereas the populist politician never receives utility from the global good.[14] The utility functions of the politicians are the following

$$U_{et} = h_t + G(g_t + c_e) \tag{5}$$

$$U_{pt} = g_t + c_p \tag{6}$$

We make the following assumptions concerning private consumption.

Assumption 2. $c_e = c_p = c_i > c_o$

In other words, both politicians have the same level of private consumption as the rich voters. The populist politician has no care at all for the global good, as opposed to poor voters who want to consume the global good as long as the resource level is high enough.[15] If we relate this to one aspect of global goods it means that the populist politician prefers anti-immigration policies on ideological or xenophobic grounds, while poor voters support anti-immigration policies on financial (or material) grounds. In the main analysis we assume that politicians are exclusively policy-motivated. However, in Section 4 we add office-motivation as a politician incentive.

2.3 Timing and Information

In the first time period an incumbent is drawn from a pool of politicians. The incumbent is populist with $Pr(j = p) = \mu$ and established with $Pr(j = e) = (1-\mu)$. The incumbent's type is known to the incumbent but not to the voters. Thereafter, the state of the world is realized and can either be a boom or a recession. The probability of a boom is $Pr(T = H) = \phi$ and the probability of a recession is $Pr(T = L) = (1 - \phi)$. There is perfect information in the model with regards to ϕ. The first period cost shock θ_1 is realized and observed by the incumbent but not by the voters. The state of the world and cost shock realizations are independent from each other. The incumbent maximizes the sum of utility over the two time periods

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[14]After deciding by a flip of a coin, the established politician will be denoted *he* and the populist politician will be denoted *she* in the text that follows.

[15]In line Besley and Smart (2007), we do not model the decision to run for office, which becomes especially clear since the preferences of the populist do not exactly represent any voter group. We acknowledge that for there to be populist politicians, there must also be some voters that share their utility function, in other words, that are also motivated by xenophobia rather than their low private consumption level.

by choosing policy (g, h) in the first period. The incumbent knows which voter group that is in majority in the electorate. Voters observe the implemented policy, they get utility from the policy, and they update their beliefs about the incumbent's type according to Bayes rule. Voters elect the incumbent or the challenger depending on which is their preferred type with highest probability. The candidate receiving the most votes wins. Second period state of the world and relative cost shock θ_2 are realized. The elected politician implements a second period policy, voters and politicians get utility from the policy, and after that the world ends.

3 Equilibrium

In this section we show the existence of pooling and separating equilibria in our two period model. We solve the model using backwards induction, i.e. we start by investigating the incentives of voters and politicians in the last period. Voters realize that politicians implement their own preferred policy in the last period since there are no reelection incentives. Therefore we start by analyzing what type of politician voters prefer. In the first period, however, incumbent politicians can either implement their preferred policy or mimic the behavior of the other type in order to get reelected. Voters update their beliefs about the true type of the incumbent after observing the implemented policy. We analyze when first period state of the world in terms of public resources is low and high respectively. For each resource state there are two interesting cases to analyze; when the incumbent is established and poor voters are in a majority, and when the incumbent is populist and rich voters are in a majority. However, we only analyze the pooling dilemma of first period established incumbents since this is the most interesting case.

3.1 Which Politician Type Do Poor Voters Prefer in the Last Period?

Clearly, the rich voters' preferred politician is the established politician since they have the same level of private consumption, and thus they have the exact same policy preferences. The poor voters' preferred type is not as easily determined. All we know hitherto is that poor voters have the same demand for goods as the populist politician if the world is in a recession. However, when poor voters decide what candidate to vote for they have to take into account the possibility that the second period will be a boom.

Consider W_H^p that represents poor voters' indirect expected utility (in a boom) evaluated at the preferred policy of the populist, and W_H^e represents poor voters' indirect expected utility (in a boom) evaluated at the preferred policy of the es-

tablished politician. The poor voters strictly prefer the populist policy over the established politician's policy if $W_H^p > W_H^e$. From Assumption 2 we know that $c_o < c_e$, from which it follows that W_H^e is decreasing in c_e. As the established politician's private consumption level grows, the more dissimilar his preferences become in relation to poor voters. Poor voters thus prefer the populist policy in a boom if the difference between c_e and c_o is large enough. Consider the following proposition

Proposition 1. *There exists a $\hat{c}_e$ such that poor voters prefer the populist politician in a boom if $c_e \geq \hat{c}_e$.*

Proof. See Appendix for proof of Proposition 1. □

In an uncertain world, where public resources can be either high or low, the objective for voters is to choose the candidate that is most likely the type of politician that the gives the highest *expected* utility in the second period. Even if Proposition 1 does not hold, it could still be the case that poor voters prefer the populist type in expectation. Poor voters prefer the populist politician in expectation if

$$\phi W_H^p + (1 - \phi)W_L^p \geq \phi W_H^e + (1 - \phi)W_L^e \tag{7}$$

After inserting utility functions, rearranging and simplifying, we get the following expression, where θ_E is the expected value of θ

$$W_L^p + \phi(W_H^p - W_L^p) \geq \phi \frac{H - L}{\theta_E} + W_L^e \tag{8}$$

Whether or not Equation 8 holds partly depends on the size of the difference $(W_L^p - W_L^e)$, which is positive and growing in $c_e - c_o$. Additionally, as H grows, the benefits from consuming the established politician's preferred policy (RHS) is increasing faster than if consuming the populist politician's preferred policy, since the populist politician spends the extra resources only on the basic good in which marginal utility is decreasing. Thus, poor voters prefer the populist politician in expectation if $c_e - c_o$ is large enough or if H is small enough. For the equilibrium analysis that we conduct, the conditions in Equations 7 and 8 must hold. In any other case, voters will always prefer the established politician, and there will never be a pooling equilibrium where the established politician mimics the populist type.

Let us return to one aspect of global goods, namely the generosity in the refugee system. Up until now, we have only briefly mentioned xenophobic attitudes among the voters and instead focused on economic reasons for why poor voters would vote for a populist. Our model may however be applied to a scenario where a majority of the voters are motivated by xenophobic attitudes, and thus share the utility function

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of the populist politician. The populist politician would be preferred by such voters in both time periods regardless if the economy is in a boom or in a recession. In that case we do not need the conditions in Equation 7 and 8 for the equilibrium analysis, and the outcome of the equilibrium analysis would be the same.

3.2 Recession

The economy is assumed to be in a recession (resources are low $T = L$), the support of the poor voters is needed to win the election, and poor voters prefer the populist politician in expectation, see Section 3.1. If the incumbent were a populist, the equilibrium solution is trivial, since all she has to do is implement her preferred policy and get reelected. The interesting situation thus arises when the incumbent is an established politician. The established incumbent observes the first period realized value of θ_1 and chooses the levels of the basic good g_1 and the global good h_1 that maximizes expected utility taking into account voter strategies. The established politician can decide to pool with the populist type by implementing $g_p^* = L$ in the first time period, in which case the incumbent type is indistinguishable in the eyes of the voters. If the established politician instead decides to separate and implement his preferred policy, poor voters will know for sure that the incumbent is the established type and they will then prefer to take their chances on the challenger. Poor voters assign probability zero to the populist type at any other policy than $g_1 = g_p^* = L$, because there are no incentives for a populist incumbent to implement anything else when poor voters are in a majority.

If voters observe levels of both goods and also the resource shock, they can make use of the public budget constraint in Equation 2 to back out the value of θ_1. However, since there is no spending at all on h, if the established politician decides to pool, voters are not able to figure out the value of θ_1. This is very important, since if voters know θ_1 they will have additional information about the true type of the incumbent. What voters *do* know however, is the probability distribution for θ_t and therefore they evaluate their options according to the Bayes' rule expression below.

$$\frac{\mu}{\mu + (1 - \mu)\rho} \geq \mu \tag{9}$$

With probability ρ, the draw of θ_t is such that pooling is beneficial for the established politician. According to Bayes' rule, poor voters are better off reelecting an incumbent that has implemented a populist policy, than selecting a random challenger. The left-hand side expression in Equation 9 is the probability that the incumbent is populist conditional on having observed populist policies being imple-

mented in the first period. As long as there is some possibility that an established politician reveals his type in a separating equilibrium, $\rho < 1$, the posterior probability is strictly larger than the prior probability μ. According to Bayes rule, all incumbents will be reelected if they implement $g_1 = g_p^* = L$, which include all populists and some of the established politicians.

The established incumbent faces the following short-run and long-run trade-offs: if he pools with the populist type, he experiences a short-run decrease in utility compared to if he would implement his preferred policy. However, since he gets reelected for acting like a populist (according to Bayes rule) he can implement his preferred policy in the last period without worrying about getting reelected. In order for him to find it beneficial to pool, the long run benefits must outweigh the short run cost. The established politician decides to pool if the following condition holds

$$
\begin{aligned}
W_L + \phi W_H^* + (1 - \phi)W_L^* \geq \\
\geq W_L^*(\theta_1) + \mu[\phi W_H + (1 - \phi)W_L] + (1 - \mu)[\phi W_H^* + (1 - \phi)W_L^*] \quad (10)
\end{aligned}
$$

where W_L represents indirect utility of the established politician evaluated at the populist policy in state L, whereas W_L^* (simplified from $W_L^*(\theta_E)$) represents indirect utility from the established politician's optimal policy in state L. W_H and W_H^* have corresponding interpretations. Indirect utility from implementing the populist policy W_L does not depend on θ_1 since the populist policy implies that all resources are spent on g independent of the relative cost. However, indirect utility from the established politician's preferred policy $W_L^*(\theta_1)$ depends on the relative cost in a strictly negative way. Also note that as the relative cost increases, the preferred policies of the established politician and the populist becomes more alike since the established politician prefers more of the basic good g when the global good h becomes relatively expensive. Both these mechanisms work in the same direction, namely that incentives to pool with a populist politician in period 1 is increasing in θ_1. We summarize this result in the following proposition.

Proposition 2. *There exists a $\hat{\theta}$ such that it is optimal for the established politician to pool in a recession when $\theta_1 \geq \hat{\theta}$.*

Proof. See Appendix for proof of Proposition 2 □

We prove the above proposition by first examining the incentives when the realized relative cost in period 1 equals the expected relative cost, $\theta_1 = \theta_E$. It turns out that in this case, the established politician will never pool if $\mu = 0$, and always pool when $\mu = 1$. The first result is particularly easy to understand. With politicians that are exclusively policy-motivated, implementing the preferred policy yourself is

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equivalent to having someone else doing it. So if the challenger is populist with zero probability there is no longer any point for the established politician to try to win the election. However, if the challenger is populist with certainty the established incumbent always pools. The reason is that he does not want to miss out on the chance of implementing his preferred policy in a boom, a possibility he would completely miss out on if he separates in a recession and has to live with populist policies in the second period. If the established politician always pools for the extreme value $\mu = 1$ and always separates for the other extreme $\mu = 0$, there exists a cutoff point of $0 < \mu < 1$ when pooling and separating are equally good and $\theta_1 = \theta_E$.

Extreme cases of μ are used in the section above in order to simplify intuition. However, the model is complete only when $\mu \in (0, 1)$. So let us solve for μ in Equation 10 and let $\theta_1 \neq \theta_E$. The established politician pools if

$$\mu \geq \frac{W_L^*(\theta_1) - W_L}{EW^* - EW} \tag{11}$$

In Equation 11, $EW = \phi W_H + (1 - \phi)W_L$ and $EW^* = \phi W_H^* + (1 - \phi)W_L^*$. The nominator in Equation 11 is the first period utility *loss* from pooling, and the denominator is the second period expected *gain* from pooling. For high values of θ_1, the nominator is small which implies that the share of populist politicians μ can be smaller for the established politician to find it beneficial to pool. We can also reverse the argument and say that for higher values of μ the cut-off value $\hat{\theta}$ can be smaller, and smaller cost shocks will therefore induce a pooling response.

Comparative statics

We have already established how changes in μ affect equilibrium behavior; increases in μ makes pooling more attractive. What about the other parameters? If the probability of having a boom ϕ increases, incentives to pool increases. The intuition behind this result is the following: Having a boom in the second period is most beneficial if the politician can implement the optimal policy. This tips the scales towards pooling since the established politician can be sure that the realization of a boom is capitalized by himself and not the populist.

The effect of an increase in the established politician's private consumption level c_e is more difficult to characterize. The established politician prefers more global goods h and less basic public goods g when c_e increases, meaning that his preferred policy diverges more from the populist policy. This process serves to increase both the cost of pooling in the first period, while at the same time also increase the cost of separating. The effect of c_e on the pooling decision of the established politician is thus ambiguous, and depends on the parameters of the model and the realization of θ_1.

We summarize the comparative statics discussed above in the proposition below.

Proposition 3. *The pooling decision of the established politician in a recession depends on the parameters of the model in the following way:*

   i An increase in μ increases pooling incentives and decreases the cut-off value $\hat{\theta}$.

   ii An increase in ϕ increases pooling incentives and decreases the cut-off value $\hat{\theta}$.

   iii An increase in c_e has an ambiguous effect on pooling incentives

Proof. See Appendix for proof of Proposition 3   □

3.3 Boom

As in the case with a recession, if poor voters are in majority and the incumbent is a populist politician, she will always separate in the first period, get reelected and again implement her preferred policy in the second time period. If the incumbent is an established politician he has to consider the option of pooling with a populist politician. As was previously stated in section 3.1, poor voters might prefer the established politician's policy during a boom. However, if they prefer the populist politician in expectation (for which we have derived a condition in 8) they will still not reelect the established politician for implementing their preferred policy, but rather the politician which is most likely populist. The intuition is that second period utility is the only thing voters can actually influence by voting. The established politician therefore has to implement the populist policy if he wants to be reelected. Since voters again cannot observe the true value of θ_1 we have the same Bayes' rules as in Equation 9.

The established politician pools in a boom if

$$
\begin{aligned}
W_H + \phi W_H^* + (1-\phi)W_L^* \geq \\
\geq W_H^*(\theta_1) + \mu[\phi W_H + (1-\phi)W_L] + (1-\mu)[\phi W_H^* + (1-\phi)W_L^*] \quad (12)
\end{aligned}
$$

Since $W_H^*(\theta_1)$ is strictly decreasing in θ_1, higher values of θ_1 again implies stronger incentives for choosing the pooling option. Consider the proposition below.

Proposition 4. *There exists a $\tilde{\theta} > \theta_E$ such that it is optimal for the established politician to pool in a boom state when $\theta_1 > \tilde{\theta} > \theta_E$*

Proof. See Appendix for proof of Proposition 4   □

In the proof of Proposition 4 we show that when $\theta_1 \leq \theta_E$, the established politician will never pool, not even when the probability of having a populist in office in the second period is certain ($\mu = 1$). This result is different to what we previously saw for the case with a recession, where the established incumbent always pooled if the challenger is the populist type with probability one and $\theta_1 = \theta_E$. The intuition for $T = H$ result is that the incumbent has the opportunity to implement the preferred policy in a situation where resources are plentiful. If the established incumbent chooses to pool, there is a downward risk of ending up with a recession in the second period and as such, the incumbent might miss out on implementing the most preferred policy in a boom. In a recession, on the other hand, the incumbent only faces an upward risk after pooling. A necessary condition for a pooling equilibrium in a boom is therefore that $\theta_1 > \theta_E$. Let us once again solve for μ in the pooling condition where $\theta_1 \neq \theta_E$:

$$\mu \geq \frac{W_H^*(\theta_1) - W_H}{EW^* - EW} \tag{13}$$

The nominator is the loss of pooling and the denominator is the expected gain of pooling. If we compare with the recession pooling condition, Equation 11, we see that the loss of pooling in a recession is lower than the loss of pooling in a boom. That $W_L^*(\theta_1) - W_L < W_H^*(\theta_1) - W_H$ is proved in Lemma 1 in the Appendix. Our model thus clearly predicts that pooling will be more common when first period resources are low than when first period resources are high.

Comparative statics

The intuition behind the comparative statics is similar to what we presented in Section 3.2. A difference lies in the effect of c_e which now increases the incentives to separate if $\theta_1 \geq \theta_E$, but for other values of θ_1 the effect is ambiguous.

Proposition 5. *The pooling decision of the established politician in a boom depends on the parameters of the model in the following way:*

   i An increase in μ increases pooling incentives and decreases the cut-off value $\tilde{\theta}$

   ii An increase in ϕ increases pooling incentives and decreases the cut-off value $\tilde{\theta}$.

   iii An increase in c_e increases incentives to separate if $\theta_1 \leq \theta_E$ but has an ambiguous effect on pooling incentives for $\theta_1 > \theta_E$.

Proof. See Appendix for proof of proposition 5.   □

4 Office-Motivated Politicians

We now introduce office-motivation in the form of ego-rents, by inserting $R > 0$ in the established politicians utility function in Equation 5. Since the politician receives ego-rents in the first period no matter what policy is implemented, the ego-rent only affects the pooling option. The pooling condition for the established politician now looks as follows

$$W_L + R + \phi W_H^* + (1 - \phi)W_L^* + R \geq$$
$$\geq W_L^*(\theta_1) + R + \mu[\phi W_H + (1 - \phi)W_L] + (1 - \mu)[\phi W_H^* + (1 - \phi)W_L^*] \qquad (14)$$

Clearly, introducing ego-rents from being in office makes it more beneficial to pool. In a hypothetical scenario where the ego-rents from holding office goes to infinity, the established politician becomes strictly office-motivated and will pool for all values of θ_1.

Proposition 6. *An increase in R increases pooling incentives and lowers the cut-off values $\hat{\theta} \wedge \tilde{\theta}$.*

5 Conclusion

The salient themes of modern right-wing populists are anti-globalization and anti-immigration. Import competition from developing countries contributes to increased economic vulnerability in some parts of the electorate. In light of the dependency on social protection that vulnerable voters find themselves in, or might expect to someday find themselves in, spending on refugee support systems and environmental protection will be conceived as competing uses of public resources. In other words, we propose that right-wing populist opposition to globalization, trade and immigration can be translated into a public finance conflict, where the spending priorities between two publicly provided goods is in focus. Rich voters will always support the established politician's most preferred policy of positive amounts of global good spending since they both enjoy a higher income level. Vulnerable (poor) voters, however, become increasingly alienated from the established politician's policies as the income gap grows, and will ultimately vote for populist policies that strictly prioritizes basic good spending.

We analyze the reelection behavior of incumbent politicians in the presence of right-wing populist challengers. We conclude that when the incumbent is an established politician, he adopts the policies of a populist type and get reelected if the relative cost of global goods is high enough. As the cost of the global good increases, the preferred policy bundle of the established politician becomes more similar to the

preferred bundle of the populist politician, and thus the pooling option becomes more tempting. When the first period is a booming state, the established politician pools less often since the utility gain of implementing the preferred policy in the first period when resources are plentiful is particularly high. Our model thus predicts that populist policies are more likely to be implemented in the light of economic recession.

Future papers should attempt to incorporate both the cost and the revenue side of global goods. Clearly, these goods can be seen as investments that makes future revenues possible. Future models should incorporate these dynamic effects, possibly with subjective expectations on how large these dynamic effects are.

The merit of our model will ultimately be decided by empirical testing. Whether right-wing populist voters are motivated primarily by materialism and economics (as we propose in this paper), or if these voters rely mostly on ideas of nationalism, social conservatism or even xenophobia will have to be determined by future empirical research.

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Appendix

Proof of Proposition 1. In this proof we show that poor voters strictly prefer the established politician when they have the same income ($c_e = c_o$), but that utility from the established politician's policy decreases as c_e increases. Poor voters prefer the populist policy in the high state if $W_H^p \geq W_H^e$. Using the indirect utility functions we can write this as

$$G(H + c_o) \geq G\left[G_g^{-1}\left(\frac{1}{\theta_E}\right) - c_e + c_o\right] + \frac{H + c_e - G_g^{-1}\left(\frac{1}{\theta_E}\right)}{\theta_E} \tag{15}$$

The above never holds if $c_e = c_o$, since the poor voters would then have the same preferences as the established politician. Let us take the derivative of W_H^e (RHS) with respect to c_e to see how poor voter utility, evaluated at the policy of the established politician, changes as the private consumption of the established politician increases.

$$\frac{\partial W_H^e}{\partial c_e} = -G'\left[G_g^{-1}\left(\frac{1}{\theta_E}\right) - c_e + c_o\right] + \frac{1}{\theta_E} \tag{16}$$

From the poor voter first order condition for an interior solution we know that the following must hold in optimum.

$$G'(g_o^* + c_o) = \frac{1}{\theta_E} \tag{17}$$

Inserting the solution for optimal policy into Equation 17 we get the following

$$G'\left[G_g^{-1}\left(\frac{1}{\theta_E}\right)\right] = \frac{1}{\theta_E} \tag{18}$$

Since $c_e > c_o$ we know that $G_g^{-1}\left(\frac{1}{\theta_E}\right) - c_e + c_o < G_g^{-1}\left(\frac{1}{\theta_E}\right)$. Since $G''(\bullet) < 0$ we know that the marginal utility evaluated at the established politicians preferred policy is higher than the marginal utility evaluated at the preferred policy of the poor voters. It follows that the expression in Equation 16 is negative when $c_e > c_o$, and that poor voter utility evaluated at the preferred policy of established politicians is decreasing in c_e. Since utility from the populist politicians preferred policy is a constant there will be a cut-off value of $\hat{c}_e$ where poor voters switches from preferring the established politician to preferring the populist politician.

□

Proof of Proposition 2. We begin by showing that there exists a pooling equilibrium when $\theta_1 = \theta_E$. Consider also that $\mu = 0$. When inserting the above assumptions into Equation 10 we get the following contradiction $W_L \geq W_L^*$. The condition for pooling will thus never be satisfied if $\theta_1 = \theta_E$ and $\mu = 0$.

Consider now the case where $\mu = 1$. The established politician will pool if

$$W_H^* - W_L^* \geq W_H - W_L \tag{19}$$

The inequality in Equation 19 is a recurrent feature in our analysis, and therefore we prove that this inequality always holds in Lemma 1.

Lemma 1. *The utility gain from $T = H$ compared with $T = L$ is higher when evaluated at the optimal policy.*

$$W_H^* - W_L^* > W_H - W_L \tag{20}$$

Proof of Lemma 1. We prove Lemma 1 by taking the derivative of W^* and W respectively with respect to T. We get the following results.

$$\frac{\partial W^*}{\partial T} = \frac{1}{\theta} \qquad \text{and} \qquad \frac{\partial W}{\partial T} = G\prime(T + c_e) \tag{21}$$

In an interior optimum we know that $G'(g_e^* + c_e) = \frac{1}{\theta}$. We also know that $g_e^* < T$ for an interior solution. Since $G'(\bullet) > 0$ and $G''(\bullet) < 0$ it follows that a utility increase from higher T is larger if the established politician consumes his optimal policy. Since $G'(T + c_e) < \frac{1}{\theta}$ we know that $W_H^* - W_L^* > W_H - W_L$ will always hold.

□

Proof of Proposition 2, cont. Let us rewrite the pooling condition as follows under the assumption that $\theta_1 = \theta_E$.

$$W_L + EW^* \leq W_L^*(\theta_E) + \mu EW + (1 - \mu)EW^* \tag{22}$$

So far we have shown that the established politician will never pool if $\mu = 0$, and always pool if $\mu = 1$. It follows that there is some linear combination where $0 < \mu < 1$ of the two constants EW^* and EW which makes the right-hand side and

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the left-hand side in Equation 22 equal to each other. Consider now that we keep μ fixed at this interior value and instead we let θ_1 vary. The realized value of θ_1 will determine whether the established politician will pool or not since $W_L^*(\theta_1)$ is strictly decreasing in θ.

In the calculation below we show that the established politician's utility from the preferred policy is decreasing in θ.

$$W_L^*(\theta) = \frac{L - g^*(\theta)}{\theta} + G[g^*(\theta) + c_e] \tag{23}$$

$$\frac{\partial W_L^*(\theta)}{\partial \theta} = -\frac{L - g^*(\theta)}{\theta^2} - \frac{g^{*\prime}(\theta)}{\theta} + G'[g^*(\theta) + c_e]g^{*\prime}(\theta) =$$
$$\text{substituting in first order condition}$$
$$= -\frac{L - g^*(\theta)}{\theta^2} - \frac{g^{*\prime}(\theta)}{\theta} + \frac{1}{\theta}g^{*\prime}(\theta) =$$
$$= -\frac{L - g^*(\theta)}{\theta^2} < 0 \tag{24}$$

$\square$

Proof of Proposition 3.

i A higher μ implies that the draw of θ_1 needed for the established incumbent to want to pool can be lower. This is explained thoroughly in the text and in the proof of proposition 2.

ii We take the derivative w.r.t. to ϕ on both sides of Equation 10 and end up with the following condition.

$$W_H^* - W_L^* \geq \mu[W_H - W_L] + (1 - \mu)[W_H^* - W_L^*]$$
$$W_H^* - W_L^* \geq W_H - W_L \tag{25}$$

The above holds according to Lemma 1. An increase in the probability that the next state is a boom therefore increases utility from pooling compared to separating.

iii Since private consumption and the basic good are perfect substitutes, more private consumption c_e for the established politician implies that he prefers to

redistribute more from the basic good to the global good. We insert the optimal policies of the populist and the established politician into the pooling condition of the established politician and take the derivative w.r.t. to c_e to get the following expression.

$$G'(L + c_e) + \frac{1}{\theta_E} \geq$$
$$\geq \frac{1}{\theta_1} + \mu[\phi G'(H + c_e) + (1 - \phi)G'(L + c_e)] + (1 - \mu)\frac{1}{\theta_E} \tag{26}$$

From the expression above we can only say that the effect of an increase in c_e is ambiguous. It makes separating more beneficial in the first period, and pooling more beneficial in the second period, but we cannot analytically say which effect is larger since it depends on the realization of θ_1, the difference between H and L, and how close the established politician is to preferring a corner solution.

Proof of Proposition 4. Consider $\theta_1 = \theta_E$. If $\mu = 0$, the established politician never pools since $W_H \geq W_H^*$ never holds. If $\mu = 1$, the established politician never pools since $W_H - W_L \geq W_H^* - W_L^*$ never holds according to Lemma 1.

Now consider $\theta_1 > \theta_E$. Let us rewrite the pooling condition as $W_H - W_H^*(\theta_1) \geq \mu(EW - EW^*)$. Let us once again consider $\mu = 0$. In this case, the established politician will never pool, see above. Now consider $\mu = 1$. The sufficient and necessary condition for the existence of a pooling equilibrium in this case is

$$EW^* + (1 - \phi)(W_H - W_L) \geq W_H^*(\theta_1) \tag{27}$$

For interior values of $0 < \mu < 1$, θ_1 must be even larger for there to be a pooling equilibrium.

$\square$

Proof of Proposition 5.

i See proof of proposition 3

ii See proof of proposition 3

iii The only difference to the analysis in proposition 3 is that the first period is now a booming state.

$$G'(H + c_e) + \frac{1}{\theta_E} \geq$$

$$\geq \frac{1}{\theta_1} + \mu[\phi G'(H + c_e) + (1 - \phi)G'(L + c_e)] + (1 - \mu)\frac{1}{\theta_E} \qquad (28)$$

Consider that $\theta_1 = \theta_E$, which gives us the following expression

$$G'(H + c_e) \geq \mu[\phi G'(H + c_e) + (1 - \phi)G'(L + c_e)] + (1 - \mu)\frac{1}{\theta_E} \qquad (29)$$

We know that the equation above never holds since $G'(H + c_e) < G'(L + c_e) < \frac{1}{\theta_E}$, which we know from concavity and the first order condition for an interior solution. Therefore an increase in c_e increases incentives to separate if $\theta_1 \leq \theta_E$. If $\theta_1 > \theta_E$, the effect of c_e on the pooling decision is ambiguous.

$\square$