Inequality, Immigration and Party Strategies

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ABSTRACT

In this paper we explore how increasing immigration levels affect party strategies. Specifically, we analyse the effect of immigration on parties' positions over the economic and authoritarian dimensions. We content that the relationship between immigration and party positions crucially depends on the structure of inequality. We present a new theoretical argument according to which, based on a median voter logic, the structure of inequality can explain the conditional relationship between immigration and party strategies. We investigate the mechanism empirically by exploiting a panel dataset at the party-level for OECD democracies over the period 1962-2015. Overall, the paper presents robust empirical evidence that shows that immigration is an important determinant of party strategies but highly conditional to the type of inequality. The results are robust to alternative explanations such as trade exposure and labor market segmentation. Importantly, the results also show that redistributive platforms and authoritarianism are oftentimes complementary responses to rising immigration levels, specially when inequality at the upper-half of the income distribution increases.

1 Introduction

In this paper we analyse how increasing immigration affects party strategies and therefore the nature of modern party competition in advanced democracies. In other words, we investigate how increasing immigration levels affect parties' strategies both in the economic and authoritarian dimensions. It is true that higher immigration is always related to the rise of nationalist and authoritarian politics? What are the mechanisms by which immigration can affect the incentives of political parties to propose smaller or greater redistributive policies? Unfortunately, we lack enough empirical evidence on the relationship between immigration and party strategies to be able to answer these questions. But still, understanding how the elites and parties react to rising immigration levels remains a crucial endeavor. Here we will explore the relationship between increasing immigration levels and parties' policy stands by analyzing a panel at the country-party-election level that incorporates both party-level and macro-level factors across OECD democracies during the period 1962-2015.

In line with recent research that has emphasized the multidimensional party competition (Tavits and Potter, 2015), we also conceptualize the political space as being multidimensional. Therefore, we will explore how increasing immigration levels affect two types of party strategies: economic positions and authoritarian positions. But crucially, and this is the main novelty of this paper, we will investigate how the effect of immigration on party strategies is actually moderated by the structure of inequality. That is, by the relative distance between the middle income group and the low income voters, on one hand, and the middle income group and the high income voters, on the other. The structure of inequality is crucial as long as it shapes the preferences of the middle income group (Lupu and Pontusson, 2011). The influx of immigration, though, critically requires a reformulation of the existing redistributive equilibriums in any given society. The entrance of potential new welfare recipients necessarily forces the middle income group, and therefore the median voter, to re-evaluate their redistributive demands. As such, the influx of immigration can

either damage precarious redistributive coalitions (when inequality at the lower-half of the income distribution is high) or reinforce already existing pro redistributive coalitions (when inequality at the upper-half of the income distribution is high).

We propose a mechanism by which the incentives of the middle income group to increase o decrease its preferred redistributive spending as immigration increases crucially depend on the structure of inequality. More specifically, we argue that when the distance between the median voter and the very poor is high in relative terms then greater immigration should be associated with lower redistributive platforms by political parties. In this case the scapegoats, in the eyes of the median voter, are likely to be the low-income voters. In other words, when inequality at the lower half is rising an increase in immigration will reinforce a lower redistribution equilibrium. Whereas if the opposite holds and the distance between the median voter and the very rich is higher then we should observe greater redistributive platforms as immigration increases. In this case immigration combined with growing inequality at the top should lead to a greater redistributive demands by the median voter. In other words, inequality at the bottom will reinforce the negative effects of immigration on redistribution and immigration at the top will weaken this negative effects.

Crucially, this paper constitutes the first effort to link theoretically and empirically the structure of inequality to the strategic behavior of the political parties. Therefore, it complements previous literature that have explored the effects of the structure of inequality on redistribution and social welfare spending (Lupu and Pontusson, 2011; Karabarbounis, 2011) and on individual level redistributive preferences (Beramendi and Rehm, 2015; Alt and Iversen, 2016). Most importantly, this paper offers new insights by characterizing the conditions under which we should expect redistributive proposals or instead moves towards greater authoritarian and nationalistic politics. Both the theoretical argument and the empirical findings point towards the conclusion that higher immigration levels seem to be associated either with i) higher compensatory platforms and the rise of authoritarian politics; or ii) lower compensatory platforms coupled with non-authoritarian positions. As

such, the theoretical argument and the empirical results challenge an emerging conventional wisdom according to which the authoritarian/nationalism dimension is de facto replacing the economic dimension. Instead, we show that both dimensions are complementary and the elites place themselves strategically on both dimensions in response to rising immigration and economic inequality.

Threfore, the mechanism and empirical results presented here also challenge the view according to which redistributive and compensatory platforms can be a response to appease the rise of authoritarianism and nativism. Here we present evidence showing that in fact the opposite tends to occur. Political Parties become in practice more pro redistributive and also more authoritarian as immigration increases and the inequality that is more relevant is the one at the upper-half of the income distribution. Alternatively, parties become less redistributive and also less authoritarian when immigration increases and the relevant inequality is the one at the lower-half of the income distribution. Therefore, and that is a crucial insight, political parties are not likely to become pro-redistributive and less authoritarian at the same time.

The rest of the paper is organized as follows. In section 2 we present the theoretical argument that argues that the effects of increasing immigration levels on party strategies should be moderated by the structure of inequality. In section 3 we present the set of hypotheses and in section 4 we discuss the data and the main specifications to test our hypothesis. Section 5 presents the main findings and illustrates the results. In section 6 we present a battery of robustness checks. Section 7 explores further the specific mechanism that we propose. Finally, section 8 concludes with a brief interpretation of the results.

2 Theory

The point of departure of our argument is the acknowledgement that an increase in immigration will have different redistributive implications depending on the structure of inequal-

ity. An increase in immigration can be logically analyzed as the entrance of new welfare recipients at the lower-half of the income distribution (i.e. benefiting from redistribution but without political rights). This entrance of welfare recipients is likely to change an already existing redistributive equilibrium. In other words, the median voter will change his redistributive demands. Given this, we propose a mechanism by which political parties will have electoral incentives to modify their positions in order to attract the median voter depending on i) the influx of immigration and ii) the structure of inequality defined by the distance between the rich and the middle class, on one hand, and the middle class and the poor, on the other hand.

We follow a similar logic as the one developed in Lupu and Pontusson (2011), but we modify and extent the argument by introducing two key additional elements. First, we analyze how the nature of the redistributive equilibrium (optimal tax rate) preferred by the median voter is modified as immigration increases depending on the structure of inequality. Second, we add a second dimension, the authoritarian one, as an additional dimension implying policy choices that political parties can use to further appease the median voter (Riker, 1986; Amat and Wibbles, 2009; Tavits and Potter, 2015). Specifically we introduce the authoritarian dimension conceptualized as the possibility of limiting the welfare benefits to a fraction of immigrants in order to allow for the logic of welfare chauvinism .

Given all this, we center our argument on the preferences of the median voter along the economic dimension, but we also add a second dimension of party competition over which parties also optimize to appease the median voter. By doing that we depart from alternative explanations that have pointed towards the differential power to influence across income groups (Karabarbounis, 2011; Gilens and Page, 2014) as an important determinant of redistributive outcomes in advanced democracies. Instead, we adopt a simple electoral incentives logic to explain how the influx of immigration can have very different effects on party strategies depending on the structure of inequality. That is, greater immigration will modify the redistributive demands of the median voter depending on the structure of

inequality.

Intuitively the argument is as follows. First, we assume that new immigrants will benefit from redistribution without having political rights it is straightforward to see that an increase in immigration will depress the median voter's preferred redistributive spending level. However, as long as we assume that the median voter belongs to the middle class, it is not immediate how the effect of immigration on redistribution will depend on the structure of inequality. In fact, if inequality at the bottom of the distribution rises together with the influx of immigration, both effects will reinforce each other. That's the case because both increases makes the median voter (the middle class) less willing to redistribute to the poor. If, however, inequality at the top rises together with the inflow of immigration, then the negative effect of immigration on redistribution gets reduced or even offset.

It is worthwhile emphasizing that the mechanism proposed here is different from previous accounts that have explored the relationship between inequality and party strategies. Recently, Tavits and Potter (2015) and Barth *et al.* (2015) have provided relevant insights on the determinants of party strategies. Here we offer an argument by which inequality increases do not necessarily translate into greater authoritarianism and less redistributive policies. Instead we argue that the effects of rising immigration on the redistributive demands of the median voter crucially depend on the structure of inequality. We expect this mechanism to hold *ceteris paribus* other explanations that are likely to also affect party strategies. Most importantly, trade exposure (Autor *et al.*, 2016) or increasing labour market segmentation (Alt and Iversen, 2016). The mechanism proposed here should still be in place when keeping constant these alternative explanations. In other words, the increase of welfare recipients should be a powerful enough mechanism to challenge itself the status quo.

Formalization of the Argument

Consider a society consisting of three groups of agents: the rich with fixed income y^r, the middle class with income y^m, and the poor with income y^p. Total population is denoted by n, and the share of total population of each group of rich, middle class, and poor agents is denoted by n^r, n^m and n^p, respectively; with, $\sum_g n^g = 1$. We assume that $y^r > y^m > y^p$, and $n^p > n^m > n^r$. In addition, we suppose that the median voter is a middle class agent (thus $n^p < 1/2$). Let $\overline{y}$ denote average income in this society; thus, $\overline{y} = \sum_g n^g y^g$. We assume that $\overline{y} > y^m$. Since our focus is on redistribution, we parameterize inequality by defining θ^g as the share of total income accruing to the group i, with $g = p, m, r$; naturally $\theta^r + \theta^m + \theta^p = 1$. Using this notation, we can write $y^g = (\theta^g / n^g)\overline{y}$.

We assume that a political system determines an income tax rate $\tau \geq 0$ proportional to income, and a government that provides public goods. Each member of group $g = p, m, r$ has the same basic and quasi-linear preferences over private consumption c^i and publicly provided goods G (measured as spending per capita), which is given by

$$u^g = c^g + \alpha V(G) \tag{1}$$

where $V(\cdot)$ is the utility from consumption of public goods and $\alpha \geq 1$ is how agents value such goods; for now, and to simplify the the analysis, we assume that $\alpha = 1$.[1] The function $V(\cdot)$ is smooth, increasing, and concave; to simplify the analysis, let $V(\cdot)$ be $V(G) = G$. Private consumption depends on the net of tax income, given by

$$c^g = (1 - \tau)y^g \tag{2}$$

We also assume that there is an aggregate costs of taxation $C(\tau)n\overline{y}$, with $C' > 0$, $C'' > 0$,

[1] This is without lost of generality.

$C'(0) = 0$, $C'(1) = 1$. Thus, the government budget constraint is equivalent to

$$G = \tau\overline{y} - C(\tau)\overline{y} \tag{3}$$

Thus, we have that each agent in group i indirect utility is

$$W^g(\tau) = (1-\tau)y^g + (\tau - C(\tau))\overline{y} \tag{4}$$

Since the median voter is a middle class agent, the equilibrium tax rate is the middle class agent's ideal policy, that we denote by τ^m. We find τ^m by maximizing $W^m(\tau)$; to simplify the analysis, let $C(\cdot)$ be $C(\tau) = \tau^2/2$; thus, the FOC is

$$\tau^m = 1 - y^m/\overline{y} \tag{5}$$

$$= 1 - \theta^m/n^m \tag{6}$$

where in (6) we used $y^m = (\theta^m/n^m)\overline{y}$. In (5) note that $\tau^m > 0$ since $\overline{y} > y^m$.

Equations (5) and (6) are useful for studying the effects on τ of an change in the distribution of the population. Since our focus is on the effects of an increase in immigration levels, let us assume that this increase changes the distribution of the population only by increasing n^p, the share of population of the poor.

Importantly, we assume that new immigrants benefit from redistribution, but have no political rights; that immigrants have no political rights implies that an increase in immigration does not change the identity of the median voter (thus, even after an increase in immigration, (5) and (6) still describe the median voter's most preferred tax rate).

It is easy to see from (5) that an increase in immigration, that we model as an increase

in n^p, decreases the median voter's most preferred tax rate, i.e., that[2]

$$\frac{\partial \tau^m}{\partial n^p} < 0 \tag{7}$$

Now we study how the last result is affected when we also observe an increase in inequality. Since we are interested in the effect of a change in the structure of inequality that includes different income groups, our definition of inequality must take into account this structure. To do this we focus on the decile ratios, and specifically, on the 90/50 and 50/10 ratios, defined as the upper bound value of the ninth decile (i.e. the 10% of people with highest income) to the median income, and of median income to the upper bound value of the first decile (i.e. the 10% of people with lowest income), respectively.

Following the notation we introduced before, these ratios can be represented by

$$\text{Ratio } 50/10 = \theta^m/\theta^p \qquad \text{Ratio } 90/50 = \theta^r/\theta^m \tag{8}$$

Lets now examine how the effect of immigration on the median voter' ideal redistributive policy is affected by an increase in each of these two ratios. To do this, lets note that $\frac{\partial \tau^m}{\partial n^p}$ is equivalent to[3]

$$\frac{\partial \tau^m}{\partial n^p} = \frac{y^m y^r n^r}{\overline{y}^2 n^p n^m}\left[\frac{1}{(\theta^r/\theta^m)}\right]\left[\frac{n^m}{(\theta^m/\theta^p)} - n^p\right] \tag{9}$$

In (9) note that $y^m > y^p$ implies that $\frac{n^m}{(\theta^m/\theta^p)} - n^p < 0$, which makes (9) consistent with what we established in (7), that an increase in immigration decreases the median voter's demand for redistribution.

Importantly, note that (9) is a function of the the ratios defined in (8), and that how (9) changes as a consequence of an increase in each of these ratios is precisely how the effect of immigration on the median voter' ideal redistributive policy is affected by an increase in

[2]For a proof see Proposition 1 in Appendix 1.
[3]For a proof see Proposition 2 in Appendix 1.

inequality (as measured by these ratios).

We examine first the effect of an increase in the 50/10 ratio, which from (8) is θ^m/θ^p. Differentiating (9) with respect to θ^m/θ^p, and assuming that the population shares, $\overline{y}$ and (θ^r/θ^m) are kept fixed, we get:[4]

$$\frac{\partial}{\partial(\theta^m/\theta^p)}\left(\frac{\partial\tau^m}{\partial n^p}\right) < 0 \tag{10}$$

Thus an increase in the 50/10 ratio reinforces the negative effect of immigration on redistribution: as the middle class becomes richer relative to the poor, and as the poor become more numerous because of the increase in immigration, the middle class support less redistributive policies, basically because both increases make this class to redistribute more to the poor.

We examine now the effect of an increase in the 90/50 ratio, which from (8) is θ^r/θ^m. Differentiating (9) with respect to θ^r/θ^m, and assuming again that the population shares, $\overline{y}$ and (θ^r/θ^m) are kept fixed we get:[5]

$$\frac{\partial}{\partial(\theta^r/\theta^m)}\left(\frac{\partial\tau^m}{\partial n^p}\right) > 0 \tag{11}$$

Thus an increase in the 90/50 ratio goes in opposite direction to the negative effect of immigration on redistribution: as the rich become richer relative to the middle class, the middle class has more incentives to redistributive, and this new effect weakens the decrease in redistribution caused by the increase in immigration, and, if it is sufficiently strong, may offset it.

[4]For a proof see Proposition 3 in Appendix 1.
[5]For a proof see Proposition 4 in Appendix 1.

Example

As an illustration of the theory presented in last section, lets consider a numerical example where the incomes of the three economic groups are initially set to $y^r = 50$, $y^m = 15$ and $y^m = 10$, and the population shares to $n^r = 0.1$, $n^m = 0.45$ and $n^p = 0.45$. Note that $\overline{y} = \sum_g n^g y^g = 16.25$ and that the conditions $\overline{y} > y^m$ and $n^p < 1/2$ are satisfied. From this initial situation, (5) implies that $\tau^m = 0.08$.

Lets illustrate the first result of last section, i.e., (7). To to this, lets suppose that n^p increases, passing from $n^p = 0.45$ to $n^{p'} = 0.46$. In this new situation, lets assume that the population shares for r and m are now $n^{r'} = 0.1$ and $n^{m'} = 0.44$. Note that $\overline{y}' = \sum_{g'} n^{g'} y^g = 16.2$, and from (5), $\tau^{m'} = 0.07 < 0.08 = \tau^m$. Thus, (7) is verified.

Lets illustrate now the other two important results from last section, (10) and (11). To do this, note first that from the situation described in the last paragraph, $\theta^r = 0.31$, $\theta^m = 0.41$ and $\theta^p = 0.28$. Note also that $\theta^m/\theta^p = 1.43$ and $\theta^r/\theta^m = 0.76$.

To illustrate (10) and (11), we examine now the effects on the change in τ^m of an increase in θ^m/θ^p and θ^r/θ^m.

(i) Lets consider first the effects of an increase in θ^m/θ^p. Lets assume that it passes from $\theta^m/\theta^p = 1.43$ to $\theta^{m'}/\theta^{p'} = 2.11$. As in last section, we focus on the effect of this increase when we keep the population shares, $\overline{y}'$ and θ^r/θ^m fixed. A possible configuration of incomes that allows this to happen is that y^m increases from $y^m = 15$ to $y^{m'} = 16.5$, that y^p passes from $y^p = 10$ to $y^{p'} = 7.5$ and y^r passes from $y^r = 50$ to $y^{r'} = 55$. It is easy to verify that under this new combination of incomes, we still have that $\overline{y}' = 16.2$, and $\theta^r/\theta^m = 0.76$. However, under this situation, we have that $\tau^{m''} = 0 < 0.07 = \tau^{m'}$. Thus, as (10) states, an increase in the 50/10 ratio reinforces the negative effect of immigration on redistribution making the tax rate even smaller.

(ii) Lets consider now the effects of an increase in θ^r/θ^m. Lets assume that it passes from

$\theta^r/\theta^m = 0.76$ to $\theta^{r'}/\theta^{m'} = 1.03$. Again, we focus on the effect of this increase when the population shares, $\overline{y}'$ and θ^m/θ^p are fixed. A possible configuration that allows this to happen is now that y^r increases from $y^r = 50$ to $y^{r'} = 61.2$, that y^m passes from $y^m = 15$ to $y^{m'} = 13.5$ and y^p passes from $y^p = 10$ to $y^{p'} = 9$. It is again easy to verify that we still have that $\overline{y}' = 16.2$, and $\theta^m/\theta^p = 1.43$. However, under this situation, we have that $\tau^{m''} = 0.17 > 0.07 = \tau^{m'}$. Thus, as (11) states, an increase in the 90/50 ratio goes in opposite direction to the negative effect of immigration on redistribution, and in this particular case it offsets it.

3 Nationalism, Heterogeneity and Welfare

We now modify the model to introduce heterogeneity in the population, and homogenization through nationalism. First, we re-interpret the parameter α, that we described before as measuring how agents value public goods; now we add that α also measures how homogenous the population is. The intuition behind this interpretation is based on the idea that sharing a public good implies contacts between people, and contacts across types may produce negative utility **??**. For a very heterogenous society (i.e., a society with a large number of different types of individuals), enjoining a public good implies having many contacts across types, which may decrease the value of the public good (i.e. a small α). For a very homogenous society (i.e. a society with very small number of different types of individuals), enjoining a public good implies having very few contacts across types, which may increase the value of the public good (i.e. a big α).[6]

A second modification captures the logic of homogenization through nationalism. We

[6]Under this interpretation, we could have followed **?** and write

$$\alpha = 2 - \kappa \tag{12}$$

where $\kappa \in [0, 1]$ would be the number of different types of individuals in the population. Importantly, under this new notation the enjoyment of the public good would be decreasing with the number of types in the population. To simplify the notation we decided to work only with the parameter α, and interpret it as how homogenous the population is.

add that the median voter, before deciding the tax rate, decides α. Thus, social policy happens in two periods: at $t = 1$, the median voter decides α, and at $t = 2$, taken α as given, the median voter decides τ. Importantly, by endogenizing α in a first stage we try to capture the idea that a democratic government, through education policies, immigrant-screening mechanisms for national values, ethnic discriminatory policies, etc. can alter the number of different types of individuals in the population.

Finally, we assume that heterogeneity has some benefits, and that these benefits affect positively the provision of public goods. Specifically, we assume an aggregate cost function of homogeneity, $D(\alpha)n\overline{y}$, with $D' > 0$, $D'' > 0$, $D'(0) = 0$. A justification for these costs is an increase in innovation or productivity as a consequence of a greater number of different types in the population, for instance because individual's likelihood of improving decisions depends more on her having a different perspective from other group members than on her own high expected score (see **?** and **?** for instance).

Using this new notation, the indirect utility function of m is still

$$W^m(\tau) = (1 - \tau)y^m + \alpha G \tag{13}$$

But the government budget constraint becomes

$$G = \tau\overline{y} - C(\tau)\overline{y} - D(\alpha)\overline{y} \tag{14}$$

where $D(\alpha)$ are the costs for homogeneity.[7] Replacing (14) in (16), and rearranging, we

[7]The function $D(\alpha)$ in (14) measures in a 'reduced form' way the costs of homogeneity, so it admits several interpretations. One possible interpretation is that $D(\alpha)$ measures the per capita tax revenue that is lost because of poor decision making by bureaucrats in charge of taxing. Other possible interpretation results from writing (14) as:

$$G = f(I, \kappa) \tag{15}$$

where $I = \tau\overline{y} - C(\tau)\overline{y}$ is the revenue that the government gets through taxes and that is used in the production of G, κ measures heterogeneity (for instance the number of different types of individuals in the population), and f is the production function of G, with $\partial f/\partial I > 0$ and $\partial f/\partial \kappa > 0$. Note that when $f(I, \kappa) = I + \kappa$ and $\kappa = -D(\alpha)\overline{y}$, we have (14). According to this interpretation, $D(\alpha)$ can be understood as the costs of homogeneity directly associated to the loses in public goods provision as a consequence

have that he indirect utility function of m is

$$W^m(\tau) = (1-\tau)y^m + \alpha(\tau - C(\tau) - D(\alpha))\overline{y} \tag{16}$$

As for, the tax rate preferred by m, the FOC is now:

$$\begin{aligned} \tau^m &= 1 - y^m/(\alpha\overline{y}) && (17) \\ &= 1 - \theta^m/(\alpha n^m) && (18) \end{aligned}$$

where $\tau^m > 0$ since $\overline{y} > y^m$ and $\alpha \geq 1$. Importantly, note that as heterogeneity increases (i,e. α decreases), the median voter prefers a smaller tax rate; an intuition for this result may be that an increase in heterogeneity implies that the median voter, for enjoying the public good, has to interact more with different types, which decreases how much he values such a good, thus, how willing he is to finance it through taxes.

It is straightforward to see that it is still true that an increase in immigration decreases the median voter's most preferred tax rate.[8]

Lets focus now in the first stage. Replacing $\tau(\alpha) = 1 - y^m/(\alpha\overline{y})$ in (16), we have

$$W^m(\alpha) = (1-\tau(\alpha))y^m + \alpha(\tau(\alpha) - C(\tau(\alpha)) - D(\alpha))\overline{y} \tag{19}$$

To simplify the analysis, let $D(\cdot)$ be $D(\alpha) = \beta\alpha^2/3$ with $\beta \geq 0$. It is possible to show that under certain weak conditions over β, $W^m(\alpha)$ in (16) is strictly concave and twice continuously differentiable, and an admits an interior solution;[9] thus in order to find the α

of reducing heterogeneity in the process of production of such goods. As previously mentionned, this interpretation is consistent with **?** and **?**.

[8]Note that by assumption an increase in immigration does not affect α, since an increase in immigration does not necessarily translate into an increase of the number of immigrant group types in the population. This is equivalent to assume that α depends on the extensive margin of immigration (number of types) but not on the intensive margin of immigration (n^p).

[9]The conditions are that $(y^m)^2/(2\overline{y}^2) < \alpha^4\beta$ and $\overline{y}^2 > 8\beta(y^m)^2$, which are both satisfied when $\overline{y}/y^m > \sqrt{2}$ for all $\alpha \geq 1$. For a proof see Proposition 5 in Appendix 1.

that maximizes $W^m(\alpha)$, we need to set the derivative of $W^m(\alpha)$ with respect to α equal to zero. The FOC of this problem is:

$$-(y^m)^2/(2\overline{y}\alpha^2) + \overline{y}/2 - \overline{y}\beta\alpha^2 = 0 \tag{20}$$

It is easy to show that the only feasible solution to this equation is[10]

$$\alpha^m = \left(\overline{y} + (\overline{y}^2 - 8\beta(y^m)^2)^{1/2}\right)^{1/2}\left(4\beta\overline{y}\right)^{-1/2} \tag{21}$$

It is possible to show that[11]

$$\frac{\partial \alpha^m}{\partial n^p} < 0 \tag{22}$$

Thus, an increase in immigration decreases the incentives of the median voter to invest in homogenization. The intuition is as follows: the increase in immigration implies that, in the second period, the tax rate and the corresponding public good provision will be lower; then, since homogenization is costly, and its benefits will be lower in the second period, in the first period the median voter will spend less in homogenization.

Lets now examine how the effect of immigration on the median voter' ideal α is affected by an increase in the two inequality ratios defined in last section.

First, it is possible to show that[12]

$$\frac{\partial}{\partial(\theta^m/\theta^p)}\left(\frac{\partial \alpha^m}{\partial n^p}\right) < 0 \tag{23}$$

The intuition behind this result is as follows. An increase in the 5010 ratio reinforces the negative effect of immigration on homogenization; why? the increase in the 5010 ratio generates additional incentives for the median voter to tax less and provide less public

[10]For a proof see Proposition 5 in Appendix 1.
[11]For a proof see Proposition 6 in Appendix 1.
[12]For a proof see Proposition 7 in Appendix 1.

goods at $t = 2$; knowing this at $t = 1$, the median voter will choose at $t = 1$ a smaller α, because homogenization is costly, and it benefits will be lower given that less public goods will be provided at $t = 2$.

Second, it is possible to show that under certain plausible condition over β,[13]

$$\frac{\partial}{\partial(\theta^r/\theta^m)}\left(\frac{\partial \alpha^m}{\partial n^p}\right) > 0 \tag{24}$$

The intuition behind this result is as follows. An increase in the 9050 ratio weakens the effect of immigration on homogenization; why? the increase in the 9050 ratio generates incentives for the median voter to tax more and provide more public goods at $t = 2$; knowing this at $t = 1$, the median voter will choose at $t = 1$ a bigger α, because with this, despite its costs (which can not be too big, i.e. β must take intermediate values), the median voter will be able to enjoy more the greater public goods provided as redistribution is more attractive.

4 Hypotheses

Given the theoretical arguments developed in the previous section and the comparative statics derived from the l model, we are now able to formulate the following set of hypotheses:

> **Hypothesis 1**: When inequality at the upper-half of the income distribution (ratio $90/50 = \theta^r/\theta^m$) increases and immigration rises, political parties should be more willing to introduce redistributive policies and become more authoritarian.

[13]The condition is that β is not too high nor too low, and specifically, that β is sufficiently close to $\frac{\overline{y}^2}{8(y^m)^2}$. We need this condition because otherwise, i) if β too high, then the median voter trivially prefers zero homogenization (regardless the level of inequality); and ii) if β too low, the median voter trivially prefers an infinite level of homogenization (also regardless the level of inequality). For a proof see Proposition 8 in Appendix 1.

Hypothesis 2: When inequality at the lower-half of the income distribution (ratio $50/10 = \theta^m/\theta^p$) increases and immigration rises, political parties should be less willing to introduce redistributive policies and become less authoritarian.

5 Data and Baseline Specification

We use as dependent variables the economic right-wing score and the authoritarian score of each political party in our sample. To construct these scores, we draw data on party positions from the Manifesto Project Database (Volkens *et al.*, 2016),[14] which has analyzed all election programs for all significant parties in over thirty democracies for 1945-2015. Plausibly, this data provide reliable information of parties' main policy orientations and at the same time maximizes the over-time variation for which information is available. Being able to maximize the time variation is crucial for our analysis since the purpose is to investigate the effects of increasing immigration together with the patterns of the type of inequalities. For the construction of the economic left-right and libertarian-authoritarian socres we follow strictly Bakker and Hobolt (2013). Table I provides details for how we construct these scales. Descriptive statistics and data sources of other variables used as controls are presented in Table II.

Using this data, we estimate models of the form:

$$y_{cit} = \alpha + \mathbf{w}_{ct-1}\beta + \mathbf{x}_{cit-1}\gamma + \eta_c + \theta_i + \kappa_t + \lambda_i t + \epsilon_{cit} \tag{25}$$

where c indexes each country, i indexes each party, and t indexes a time period. In (25) y_{cit} represents the economic right-wing or authoritarian score of party i in country c in time period t, $\mathbf{w}_{ct}$ is a set of covariates which changes across c and t and includes the 90-50 and 50-10 ratios, the foreign-born population, and their interaction, $\mathbf{x}_{cit}$ are party specific controls, η_c is country specific fixed effects, θ_{ci} is party specific fixed effects, κ_t is time

[14]This data is available at https://manifestoproject.wzb.eu/datasets.

period fixed effects, λ_i is country-specific linear time trends and ϵ_{cit} is the idiosyncratic effect. The country fixed effects allow us to focus on within country variation over time. The time period fixed effects are included to control for common shocks. The country-specific time trends helps us to remove alternative country-specific trending determinants of income inequality, foreign-born population and parties' policy orientations.

To avoid simultaneity bias, our baseline specification has lagged explanatory variables, and since we do not expect income inequality and foreign-born population to have an immediate impact on parties' policy orientations, we use five-year averages for the country-level covariates. Note that we do not have any strong prior about the exact time it will take for immigration levels and the inequality ratios to have an effect on party positions. The results are however robust to the use of other averaging periods. In all the specifications we present OLS estimates at the party-level and report robust standard errors clustered at the country level.

6 Main Results

First, Table III reports the baseline results for the first dependent variable of interest, the economic position of parties. Column (1) includes the main independent variable of interest but without interactions; column (2) includes adds the vote share in the previous election and a dummy for EU membership as party-level controls; column (3) adds the effective number of parties in current elections and the main macro-level covariates; and column (4) incorporates a measure of openness which arguably might be in itself an important determinant of party positions (Autor *et al.*, 2016; Colantone and Stanig, 2016). The gradual incorporation of covariates and controls for alternative mechanisms obeys an attempt to account for potential omitted variable biases. Although the specification with party fixed effects provide a significant safety net, we are still not entirely protected against time-varying unobserved heterogeneity. We will discuss this later on in the robustness section.

As explained before all the macro-level regressors are lagged moving averages over the last 5 years before the elections take place. Specifically, the macroeconomic covariates are: GDP growth, unemployment, social spending and the size of elderly population. All models include year fixed effects, a common year trend and country-specific time trends. The year fixed effects and time trend are meant to capture unobserved heterogeneity related to common time shocks and trends for all parties. The country-specific linear time trend is arguably important to account for country-specific latent trends. Important ideological trends might be present within a given country and the country linear trends should account for them as long as they are monotonic.

Interestingly, the results in Table III show that the 90-50 ratio is positively associated with more right-wing economic positions in columns (1) and (2). This is a preliminary result that indicates the need to deep further on the relationship between inequality and party strategies. One explanation could be the recent findings by Hicks *et al.* (2016) according to which voters do not punish rising inequality. The relationship between the ratio 9050 and economic positions is no longer significant, though, in columns (3) and (4). On the other hand, inequality at the lower-half of the income distribution (the 50-10 ratio) is not associated with parties' positions on the economic dimension.

The results are dramatically different in Table IV, when we incorporate the interaction terms between immigration and the two inequality ratios. Most interestingly, immigration seems to be associated with more left economic scores when inequality at the upper-half of the income distribution is relevant -i.e. when the 90-50 ratio is high. But the opposite holds when the inequality that matters is the one at the lower end of the income distribution. That is, immigration is associated with more right-wing economic positions when the 50-10 ratio is high. This results are highly coherent with the mechanism that we have presented before. Interestingly, the openness index is not associated with party positions on the economic dimension.

On the other hand, Table V reports the baseline results for the second dependent

variable of interest, party positions on the authoritarian dimension. In this case the 90-50 ratio is also positively associated with higher values on the authoritarian dimension. But more interestingly, Table VI reports the baseline results when authoritarianism is the dependent variable of interest and includes the interaction terms between immigration and the inequality ratios. The results again change dramatically. Higher immigration is associated with more authoritarian scores when the 90-50 ratio is high, and instead is associated with less conservative values (i.e. more modern and cosmopolitan platforms) when the 50-10 ratio is high. Both results are again very much coherent with the arguments discussed.

In order to illustrate the main results Figures I and Figure II display the marginal effects of immigration on both dimensions but conditional to each one of the inequality ratios. Specifically, Figure I shows the marginal effects of an increase in immigration on the economic and authoritarian dimensions conditional to the degree of inequality at the upper-half of the income distribution (90-50 ratio). The severe conditionality is immediately obvious. Immigration has a negative marginal effect on the economic dimension and a positive marginal effect on the authoritarian dimension when the inequality at the upper-half of the income distribution is high. The negative effect on right-wing economic views (positive effect on redistributive stands) is very much consistent with the cross-partial described in Equation (14) of the theory section being positive. These results are coherent with the mechanism proposed; parties become more willing to introduce compensatory policies but also more protectionist as immigration increases and inequality at the upper-half of the distribution increases.

On the contrary, Figure II illustrates the marginal effects of immigration on party strategies conditional on the degree of inequality at the lower-half of the income distribution (50-10 ratio). As expected this time we observe the mirror image of the results described in the paragraph above. Immigration exerts a positive marginal effect on right-wing economic platforms (negative effects on redistributive stands) when the distance between the low-

income group and the median voter is high. This is also consistent with the cross-partial described in Equation (11) of the theory section being negative. Whereas in the right panel of Figure II we can observe how the marginal effect of immigration switches from being positive when the 50-10 ratio is low to becoming negative and significant when the 50-10 ratio is high. This result is again coherent with the theoretical mechanism we have proposed; parties become less authoritarian as immigration increases and inequality at the lower-half of the distribution is high.

7 Robustness

In this section we display a battery of robustness checks to address several forms of model uncertainty and test the stability of our estimates (Plumper and Neumayer, 2016). Specifically, we run the following robustness tests: i) add a control for labor market segmentation; ii) add covariates at the party-level; iii) run the models employing party random effects; iv) run multilevel mixed effects models; v) run the the models at the country-level; vi) run the models with a reduced 5-years average sample; and vii) run Arenallo-Bond models to address endogeneity concerns.

First, in Table VII we check if the results change once we include a control for the measure of labor market segmentation. Alt and Iversen (2016) have recently shown that increasing labor market segmentation is an important determinant of individual preferences for redistribution. We employ the same measure of labor market segmentation as in Alt and Iversen (2016) and construct the lagged moving average over the last 5 years. In column (1) we observe that the results are the same once we account for labor market segmentation. Also interestingly, it is the case that labor market segmentation is indeed associated with more economic right-wing positions when immigration levels are high.

Second, in Tables VIII and IX we include more party-level covariates that might be confounding the results. Specifically, we include two controls for party types with two

dummies: new parties and niche parties. Small parties or new parties might have less electoral incentives to address the median voter. Both of them are measured, though, in the current elections and therefore the values are not lagged. In any case, though, the results in both tables do not change and the main results remain robust. If any, the introduction of more party-level covariates improves the results by increasing the point estimates. This implies that not accounting for party types might be downward biasing our initial estimates.

Third, in Tables X and XI we specify models with party-level random effects instead of our preferred specifications that employ party-level fixed effects. The use of party-level fixed effects was motivated to get rid of all sort of time-unvarying unobserved heterogeneity both at the party and country levels. However, it is true that the use of party-level fixed effects do not allow us to fully model the uncertainty of the country-level variance (Bell and Jones, 2014). The results remain fundamentally unchanged, though, once we employ party-level random effects except for the interaction term between inequality at the lower-half of the income distribution (50-10 ratio) and immigration when all the macro covariates are also included.

Fourth, to account for the nested structure of our panel dataset in Tables XII and XIII we fully implement multilevel models, estimated by maximum likelihood, that incorporate both party-level and country-level random effects. We follow very closely Tavits and Potter (2015) when specifying these models. All models also include year fixed effects to account for common time shocks. Interestingly, the results remain robust in most of the specifications except for the estimated coefficient for the interaction term between the ratio of inequality at the lower-half of the distribution (50-10 ratio) and immigration when the dependent variable is the authoritarian dimension.

Fifth, we run the models at the country-level. In Tables XIV and XV we replicate the baseline models but this time using as a dependent variable the weighted sum of the party positions within each country at each point in time. This analysis enables us to make sure

that the effects are not driven by certain parties parties and that he results hold at the aggregate country-level. Although some coefficients lose statistical significance most of the estimates remain stable.

Sixth, we replicate the baseline models with a reduced and averaged sample. In Tables XVI and XVII we run again the baseline models with a 5-years averages sample. Given the relatively severe unbalance in the party-level panel, a reduced averaged sample enables us to make sure that the results are not driven by idiosyncratic shocks in the election-timing structure (e.g. endogenous election timing due to unobservable factors). Thus, working with a balanced sample helps to ameliorate the concerns related to irregular elections timing and also to address potential concerns of simultaneity bias. Interestingly, the results are stable once we employ this averaged and balanced sample.

Finally, we run the models employing an Arellano-Bond specification also with the 5-years averaged sample. In Tables XVIII and XIX we replicate the baseline models but this time including a lagged dependent variable. The Arellano-Bond models, which employs the lags of the independent variables to instrument them, is useful as long as it makes possible to plug in the lagged dependent variable and also helps to address the concerns related to reverse causality. The results are again in line with the baseline estimates.

8 Exploring the Mechanism

In this section we develop additional tests to explore further the mechanism. Specifically , we run three types of analysis. First we check if the results differ across left-wing and right-wing parties. If the argument developed before is correct, there should not be fundamental reasons between left-wing and right-wing parties. Second, we explore deeper the results by focusing on each of the categories that form the authoritarian dimension. This will enable us to check the welfare chauvinism explanation that we have proposed. Third, we exploit the 2008 economic crisis as a plausible exogenous shock to check if the estimates differ

before and after the crisis.

First, in Table XX we check if the results differ between left-wing and right-wing parties. Note that according to the argument discussed before there should be no differences in the extent to which both party types react to increasing immigration depending on the structure of inequality. The reason is that we have assumed a Downsian logic according to which all parties have electoral incentives to attract the median voter. However, ideological motivations might explain differential reactions to increasing immigration. For example, left-wing parties might be more willing to react to immigration by proposing welfare benefits independently of the structure of inequality.

As expected, though, the results in Table XX indicate that there are no systematic differences between left-wing and right-wing parties. As such, the results here give credit to the median voter logic that we have proposed in the theoretical section. It is true that the magnitude of the effects, especially in relation to the effects on the authoritarian dimension, are somewhat bigger for right-wing parties but the effects are still significant for left parties. These results complement the ones in Tavits and Potter (2015) according to which right-wing parties are especially inclined to react to inequality by increasing the salience of the values dimension when heterogeneity is high.

Second, to explore further the welfare chauvinism logic, in tables XXI - XXVI we run the baseline models with each one of the specific components of the authoritarian dimension as a separate dependent variable of interest. It is interesting to see that the results are statistically significant for the following subcategories of the authoritarian dimension: national way of life, nationalism and against policies pro-underprivileged minority groups. Results are not significant for multiculturalism, against pro citizenship and against pro refugees. This evidence further strengthens the support for the welfare chauvinism logic as long as the welfare and nationalists components of the authoritarian dimension are the ones for which we uncover significant results.

Finally, when we exploit the 2008 economic shock in tables XXVII and XXVIII we find

that after the crisis the effect on immigration levels on right-wing economic positions have been reinforced in cases where inequality at the upper half of the income distribution has also increased. On the other hand, we do not find significant differences before and after 2008 regarding the authoritarian dimension.

9 Conclusion

In this paper we have explored how rising immigration levels affect party strategies depending on the structure of inequality in OECD countries. First we have proposed a theoretical argument according to which political parties should have incentives to respond to the changing redistributive demands of the middle income group when immigration increases. As long as immigrants benefit from redistribution but have no political rights, when immigration rises the redistributive demands of the median voter should change accordingly. But the interesting insight is that the effect of rising immigration on the redistributive demands of the median voter crucially depends on the structure of inequality. It is not always the case that rising immigration depresses the redistributive preferences of the median voter.

When increasing immigration levels goes together with rising inequality at the top of the income distribution (ratio 9050) then parties tend to adopt more pro-redistributive stands together with tougher authoritarian positions. In this case the increase in inequality at the upper part weakens the negative effect of immigration on the median voter's redistributive preferences. Additionally, we have argued that in this case a welfare chauvinism logic is likely to be in place, where the median voter also have incentives to adopt more nationalistic views. On the other hand, when increasing immigration goes together with rising inequality at the bottom of the income distribution (ratio 5010) the implications are completely different. Here an increase in inequality at the lower part of the distribution reinforces the negative effect of immigration on the redistributive demands of the median voter. And in this case the median voter simply does not require to rely on authoritarian and

nationalistic stands. Thus, parties are more likely to adopt right-wing economic positions and more libertarian positions on the authoritarian dimension.

These findings offer an important insights regarding the links between inequality, immigration and the rise of authoritarianism. Departing from a deterministic view, we have offered a description of the scope conditions under which greater immigration is likely to be associated with authoritarianism. We have shown that the adoption of redistributive stands coupled with authoritarianism can be an optimal policy package when both immigration increases and inequality at the top rises. As such, protectionism and compensation are not necessarily substitutes but complementary policies under high inequality at the top. Whereas pro-market and libertarianism is the policy package preferred by the median voter under high inequality at the bottom. This can explain the growing polarization that we observe in many instances between pro-market and cosmopolitan views, on one side, and pro-welfare coupled with nativists views on the other side. This findings can also explain puzzling cases like the Spanish one, a case in which increasing immigration levels have not translated into rising levels of authoritarianism and welfare chauvinism. The high level of inequality at the lower half of the income distribution the ratio 5010 is especially high in Spain, as compared to other OECD countries, and this might be a reason for the lack of an extreme radical right-wing party with a pro-compensation and nativist view in Spain.

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APPENDIX 1: PROOFS OF THE MAIN RESULTS

Proposition 1. $\frac{\partial \tau^m}{\partial n^p} < 0$

Proof. First, note that $\overline{y} = \sum_g n^g y^g$, $\sum_g n^g = 1$ imply that $\frac{d\overline{y}}{dn^p} = y^p - y^m$. Second, note that differentiating (5) with respect to n^p, we get

$$\frac{\partial \tau^m}{\partial n^p} = \frac{y^m}{\overline{y}^2}\frac{d\overline{y}}{dn^p} = \frac{y^m}{\overline{y}^2}(y^p - y^m) \tag{26}$$

Finally, recall that $y^r > y^m > y^p$, thus $y^p - y^m < 0$, with which we have the result. □

Proposition 2. $\frac{\partial \tau^m}{\partial n^p} = \frac{y^m y^r n^r}{\overline{y}^2 n^p n^m}\Big[\frac{1}{(\theta^r/\theta^m)}\Big]\Big[\frac{n^m}{(\theta^m/\theta^p)} - n^p\Big]$

Proof. Replace $y^p = (\theta^p/n^p)\overline{y}$ and $y^m = (\theta^m/n^m)\overline{y}$ in (26), with which we have

$$\frac{\partial \tau^m}{\partial n^p} = \frac{y^m}{\overline{y}^2}[\overline{y}]\Big[\frac{n^m\theta^p - n^p\theta^m}{n^p n^m}\Big] \tag{27}$$

replacing $\overline{y} = \frac{y^r n^r}{\theta^r}$, we get

$$\frac{\partial \tau^m}{\partial n^p} = \frac{y^m}{\overline{y}^2}\Big[\frac{y^r n^r}{\theta^r}\Big]\Big[\frac{n^m\theta^p - n^p\theta^m}{n^p n^m}\Big] \tag{28}$$

and rearranging, we have the result. □

Proposition 3. $\frac{\partial}{\partial(\theta^m/\theta^p)}\Big(\frac{\partial \tau^m}{\partial n^p}\Big) < 0$

Proof. Differentiating (9) with respect to (θ^m/θ^p), and rearranging (for $\overline{y}$, θ^r/θ^m and n^i for $i = r, m, p$ fixed), we have that

$$\frac{\partial}{\partial(\theta^m/\theta^p)}\Big(\frac{\partial \tau^m}{\partial n^p}\Big) = -\frac{y^m y^r n^r}{\overline{y}^2 n^p n^m}\Big[\frac{1}{(\theta^r/\theta^m)}\Big]\Big[\frac{n^m}{(\theta^m/\theta^p)^2}\Big] + \frac{n^r}{\overline{y}^2 n^p n^m}\frac{\partial(y^m y^r)}{\partial(\theta^m/\theta^p)}\Big[\frac{1}{(\theta^r/\theta^m)}\Big]\Big[\frac{n^m}{(\theta^m/\theta^p)} - n^p\Big] \tag{29}$$

It is easy to see from last expression that $\frac{\partial}{\partial(\theta^m/\theta^p)}\Big(\frac{\partial \tau^m}{\partial n^p}\Big) < 0$ is satisfied when

$$n^m\Big(\frac{\partial(\theta^m\theta^r)}{\partial(\theta^m/\theta^p)} - \frac{(\theta^m\theta^r)}{(\theta^m/\theta^p)}\Big) - n^p(\theta^m/\theta^p)) < 0 \tag{30}$$

which is satisfied when

$$\frac{(\theta^m/\theta^p)}{(\theta^m\theta^r)}\frac{\partial(\theta^m\theta^r)}{\partial(\theta^m/\theta^p)} < 1 \tag{31}$$

To see this we define ι such that $(\theta^r/\theta^m) = (1-\iota)/\iota$; by assumption ι is constant. Since we also have that $\theta^r + \theta^m + \theta^p = 1$, then using the definition of ι, we have $\theta^m = \iota(1-\theta^p)$ and $\theta^r = (1-\theta^p)(1-\iota)$. Lets define $q = \theta^m/\theta^p = \iota(1-\theta^p)/\theta^p$; note that we can write $\theta^p = \iota/(\iota+q)$. Using this, note that $\theta^m\theta^r = \iota(1-\theta^p)(1-\theta^p)(1-\iota) = q^2\iota(1-\iota)/(\iota+q)^2$. Thus, we have

$$\frac{(\theta^m/\theta^p)}{(\theta^m\theta^r)}\frac{\partial(\theta^m\theta^r)}{\partial(\theta^m/\theta^p)} = \frac{(\iota+q)^2}{q}\frac{\partial(q^2/(\iota+q)^2)}{\partial q} = \frac{(2\iota)}{(\iota+q)} = \frac{(2\iota)}{(\iota/\theta^p)} = 2\theta^p < 1 \tag{32}$$

where in the last inequality, $2\theta^p < 1$, we have used that $2\theta^p\overline{y} = 2n^p y^p < \overline{y}$, satisfied since $n^p < 1/2$. □

Proposition 4. $\frac{\partial}{\partial(\theta^r/\theta^m)}\Big(\frac{\partial \tau^m}{\partial n^p}\Big) > 0$

Proof. Differentiating (9) with respect to (θ^r/θ^m), and rearranging (for $\overline{y}$, θ^m/θ^p and n^i for $i = r, m, p$ fixed), we have that

$$\frac{\partial}{\partial(\theta^r/\theta^m)}\Big(\frac{\partial\tau^m}{\partial n^p}\Big) = -\frac{y^m y^r n^r}{\overline{y}^2 n^p n^m}\Big[\frac{1}{(\theta^r/\theta^m)^2}\Big]\Big[\frac{n^m}{(\theta^m/\theta^p)} - n^p\Big] + \frac{n^r}{\overline{y}^2 n^p n^m}\frac{\partial y^m y^r}{\partial(\theta^r/\theta^m)}\Big[\frac{1}{(\theta^r/\theta^m)}\Big]\Big[\frac{n^m}{(\theta^m/\theta^p)} - n^p\Big] \tag{33}$$

It is easy to see from last expression that (11) is satisfied when

$$\frac{(\theta^r/\theta^m)}{(\theta^m\theta^r)}\frac{\partial(\theta^m\theta^r)}{\partial(\theta^r/\theta^m)} < 1 \tag{34}$$

To see this we define κ such that $(\theta^m/\theta^p) = 1/(\kappa - 1)$; by assumption κ is constant. Since we also have that $\theta^r + \theta^m + \theta^p = 1$, then using the definition of κ, we have $\theta^r = 1 - \theta^m\kappa$. Lets define now $l = \theta^r/\theta^m = (1 - \kappa\theta^m)/\theta^m$; note that we can write $\theta^m = 1/(\kappa + l)$. Using this notation, note that $\theta^r\theta^m = (1 - \kappa\theta^m)\theta^m = l(\theta^m)^2 = l(1/(\kappa + l))^2$. Thus, we have

$$\frac{(\theta^r/\theta^m)}{(\theta^m\theta^r)}\frac{\partial(\theta^m\theta^r)}{\partial(\theta^r/\theta^m)} = \frac{l}{l(1/(\kappa+l))^2}\frac{\partial(l(1/(\kappa+l))^2)}{\partial l} = (\kappa+l)^2\frac{(\kappa-l)}{(\kappa+l)^3} = \frac{(\kappa-l)}{(\kappa+l)} < 1 \tag{35}$$

□

Proposition 5. *For all β, $\overline{y}$, y^m and α such that*

$$\frac{\overline{y}^2}{8(y^m)^2} > \beta > \frac{(y^m)^2}{2\overline{y}^2\alpha^4} \tag{36}$$

the function $W^m(\alpha)$ defined in (19) is strictly concave, twice continuously differentiable and the problem $\max_\alpha W^m(\alpha)$ has a unique interior solution. A β satisfying (36) always exists when $\overline{y}/y^m > \sqrt{2}$ for all $\alpha \geq 1$.

Proof. That $W^m(\alpha)$ in (19) is twice continuously differentiable is straightforward given that the functions $C(\cdot)$ and $D(\cdot)$ are also twice continuously differentiable. We start by establishing the conditions under which $W^m(\alpha)$ in (19) is strictly concave. Replacing $\tau(\alpha) = 1 - (y^m)/(\alpha\overline{y})$ from (18) in (19), and rearranging, we have that (19) is equivalent to

$$W^m(\alpha) = (y^m)^2/(2\overline{y}\alpha) + \alpha\overline{y}/2 - \overline{y}\beta\alpha^3/3 \tag{37}$$

Differentiating (37) with respect to α, we get

$$\frac{dW^m(\alpha)}{d\alpha} = -(y^m)^2/(2\overline{y}\alpha^2) + \overline{y}/2 - \overline{y}\beta\alpha^2 \tag{38}$$

Differentiating again with respect to α, we get

$$\frac{d^2W^m(\alpha)}{d\alpha^2} = (y^m)^2/(\overline{y}\alpha^3) - 2\overline{y}\beta\alpha \tag{39}$$

which is smaller that zero when

$$(y^m)^2/(2\overline{y}^2) < \alpha^4\beta \tag{40}$$

thus, when (40) is satisfied, $W^m(\alpha)$ is strictly concave.

Now we establish the conditions under which the problem $\max_\alpha W^m(\alpha)$ admits an interior solution. From (38), we have that the first order condition (which is sufficient since $W^m(\alpha)$ is strictly concave), is

$$-(y^m)^2/(2\overline{y}\alpha^2) + \overline{y}/2 - \overline{y}\beta\alpha^2 = 0 \tag{41}$$

which is equivalent to

$$(2\beta\overline{y}^2)\alpha^4 - (\overline{y}^2)\alpha^2 + (y^m)^2 = 0 \tag{42}$$

Note that (42) is a bi-quadratic function; for the roots, lets define $x = \alpha^2$, with which (42) is equivalent to

$$x^2 - (1/(2\beta))x + (y^m)^2/(2\beta\overline{y}^2) = 0 \tag{43}$$

which have real roots give by

$$(\alpha^m)^2 = \left(\overline{y} \pm \sqrt{\overline{y}^2 - 8\beta(y^m)^2}\right)/(4\beta\overline{y}) \tag{44}$$

as long as

$$\overline{y}^2 - 8\beta(y^m)^2 > 0 \tag{45}$$

Since to have strict concavity we also need that $(y^m)/(\overline{y}\sqrt{2\beta}) < \alpha^2$ in (40), the only feasible root for our problem is

$$\alpha^m = \left(\overline{y} + (\overline{y}^2 - 8\beta(y^m)^2)^{1/2}\right)^{1/2}\left(4\beta\overline{y}\right)^{-1/2} \tag{46}$$

Thus, we have showed that if (40) and (45) are satisfied, then the problem $\max_\alpha W^m(\alpha)$ admits a unique interior solution given by (46). We still have to establish the conditions under which (40) and (45) can be satisfied simultaneously. First note that (40) is equivalent to

$$\beta > \frac{(y^m)^2}{2\overline{y}^2\alpha^4} \tag{47}$$

and (45) equivalent to

$$\frac{\overline{y}^2}{8(y^m)^2} > \beta \tag{48}$$

combining (47) and (48), we have the condition

$$\frac{\overline{y}^2}{8(y^m)^2} > \beta > \frac{(y^m)^2}{2\overline{y}^2\alpha^4} \tag{49}$$

Now we establish the under conditions which a β exists. To do this recall that, by assumption, $\overline{y}/y^m > 1$ and $\alpha \geq 1$. Note in (49) is more easily satisfied when $\overline{y}/y^m \gg 1$ or when $\alpha \gg 1$; also note that any of these conditions is sufficient for having (49). Since α is endogenous, we focus on $\overline{y}/y^m$, and find the conditions under which there is always a β satisfying (49) for all $\alpha \geq 1$. Since (49) is more easily satisfied when $\alpha \gg 1$, lets us assume the worst scenario for us: that $\alpha = 1$. In this case, from (49) a β exists when

$$\frac{\overline{y}^2}{8(y^m)^2} > \frac{(y^m)^2}{2\overline{y}^2} \tag{50}$$

which is equivalent to

$$\frac{\overline{y}}{y^m} > \sqrt{2} \tag{51}$$

Importantly, note that (51) can be relaxed if $\alpha \gg 1$. □

Proposition 6. $\frac{\partial \alpha^m}{\partial n^p} < 0$

Proof. Differentiating (21) with respect to n^p, we get

$$\begin{aligned}\frac{\partial \alpha^m}{\partial n^p} &= (1/2)\left[\overline{y}' + (1/2)(\overline{y}^2 - 8\beta(y^m)^2)^{-1/2}(2\overline{y}\overline{y}')\right]\left[(\overline{y} + (\overline{y}^2 - 8\beta(y^m)^2)^{1/2})(4\beta\overline{y})\right]^{-1/2} \\ &\quad -(1/2)\left(\overline{y} + (\overline{y}^2 - 8\beta(y^m)^2)^{1/2}\right)^{1/2}(4\beta)^{-1/2}(\overline{y})^{-3/2}\overline{y}'\end{aligned} \tag{52}$$

where $\overline{y}' = \frac{d\overline{y}}{dn^p} = y^p - y^m$. To simplify the notation, let us define $B = (\overline{y}^2 - 8\beta(y^m)^2)^{1/2} > 0$ (note that by assumption (see Proposition (5)) $(\overline{y}^2 - 8\beta(y^m)^2 > 0$. Replacing B in (52), and rearranging, we have

that (52) is equivalent to

$$\frac{\partial \alpha^m}{\partial n^p} = \frac{1}{4\beta^{1/2}}\Big[1/B - 1/\overline{y}\Big]\Big[1 + B/\overline{y}\Big]^{1/2}\Big[y^p - y^m\Big] \tag{53}$$

where we have used that $\overline{y}' = \frac{d\overline{y}}{dn^p} = y^p - y^m$. In (53) note that the sign of $\frac{\partial \alpha^m}{\partial n^p}$ depends of the sign of $1/B - 1/\overline{y}$ and $y^p - y^m$. First, recall that by assumption $y^p > y^m$, thus $y^p - y^m < 0$. Second, note that $1/B - 1/\overline{y} > 0$; to see this note that since by definition $B^2 = \overline{y}^2 - 8\beta(y^m)^2$,

$$\overline{y}^2 > \overline{y}^2 - 8\beta(y^m)^2 = B^2 \tag{54}$$

which implies that $\overline{y} > B$, and thus that $1/B - 1/\overline{y} > 0$.

□

Proposition 7. $\frac{\partial}{\partial(\theta^m/\theta^p)}\Big(\frac{\partial \alpha^m}{\partial n^p}\Big) < 0$

Proof. First note that since $y^i = (\theta^i/n^i)\overline{y}$ for $i = p, m, r$, we have that $[y^p - y^m] = [(\overline{y}\theta^m)/(n^p n^m)][n^m/(\theta^m/\theta^p) - n^p]$. Now lets us rearrange (53) replacing this expression in (53), with which we have

$$\frac{\partial \alpha^m}{\partial n^p} = \frac{y^r n^r}{4\beta^{1/2} n^p n^m}\Big[1/B - 1/\overline{y}\Big]\Big[1 + B/\overline{y}\Big]^{1/2}\Big[\frac{n^m}{(\theta^m/\theta^p)} - n^p\Big] \tag{55}$$

Now we differentiate $\partial\alpha^m/\partial n^p$ in (55) with respect to (θ^m/θ^p), keeping $\overline{y}$, (θ^r/θ^m) and n^i for $i = r, m, p$ fixed; thus, we have

$$\begin{aligned}
\frac{\partial}{\partial(\theta^m/\theta^p)}\Big(\frac{\partial \alpha^m}{\partial n^p}\Big) \;=\; & -\frac{y^r n^r}{4\beta^{1/2} n^p n^m}\Big[1/B - 1/\overline{y}\Big]\Big[1 + B/\overline{y}\Big]^{1/2}\Big[\frac{n^m}{(\theta^m/\theta^p)^2}\Big] \\
& -\frac{y^r n^r}{4\beta^{1/2} n^p n^m}\Big[1/B^2\Big]\Big[1 + B/\overline{y}\Big]^{1/2}\Big[\frac{n^m}{(\theta^m/\theta^p)} - n^p\Big]\frac{\partial B}{\partial(\theta^m/\theta^p)} \\
& +\frac{y^r n^r}{8\overline{y}\beta^{1/2} n^p n^m}\Big[1/B - 1/\overline{y}\Big]\Big[1 + B/\overline{y}\Big]^{-1/2}\Big[\frac{n^m}{(\theta^m/\theta^p)} - n^p\Big]\frac{\partial B}{\partial(\theta^m/\theta^p)} \\
& +\frac{n^r}{4\beta^{1/2} n^p n^m}\Big[1/B - 1/\overline{y}\Big]\Big[1 + B/\overline{y}\Big]^{1/2}\Big[\frac{n^m}{(\theta^m/\theta^p)} - n^p\Big]\frac{\partial y^r}{\partial(\theta^m/\theta^p)}
\end{aligned} \tag{56}$$

which is equivalent to

$$\begin{aligned}
\frac{\partial}{\partial(\theta^m/\theta^p)}\Big(\frac{\partial \alpha^m}{\partial n^p}\Big) \;=\; & -\frac{y^r n^r}{4\beta^{1/2} n^p n^m}\Big[1/B - 1/\overline{y}\Big]\Big[1 + B/\overline{y}\Big]^{1/2}\Big[\frac{n^m}{(\theta^m/\theta^p)^2}\Big] \\
& +\frac{n^r}{4\beta^{1/2} n^p n^m}\Big[1/B - 1/\overline{y}\Big]\Big[1 + B/\overline{y}\Big]^{1/2}\Big[\frac{n^m}{(\theta^m/\theta^p)} - n^p\Big]\frac{\partial y^r}{\partial(\theta^m/\theta^p)} \\
& +\frac{\partial B}{\partial(\theta^m/\theta^p)}\Big[\frac{n^m}{(\theta^m/\theta^p)} - n^p\Big]\Big[\frac{y^r n^r}{4\beta^{1/2} n^p n^m}\Big]\Bigg[\Big[\frac{1}{2\overline{y}}\Big]\Big[\frac{1/B - 1/\overline{y}}{(1 + B/\overline{y})^{1/2}}\Big] - \frac{(1 + B/\overline{y})^{1/2}}{B^2}\Bigg]
\end{aligned} \tag{57}$$

We show that the three terms in the sum on the right in (57) are negative. As for the first term, it is clear that it is negative, since all the terms it consist in are greater than zero (including $1/B - 1/\overline{y}$, as we showed before), and it is multiply by -1.

As for the second term, note that its sign depends on the sign of $(\frac{n^m}{(\theta^m/\theta^p)} - n^p)$ and on the sign of $\partial y^r/\partial(\theta^m/\theta^p)$. Regarding the term $(\frac{n^m}{(\theta^m/\theta^p)} - n^p)$, we already showed in last section that it is lower than zero. As for $\partial y^r/\partial(\theta^m/\theta^p)$, lets us show that $\partial y^r/\partial(\theta^m/\theta^p) > 0$. To see this first recall that $y^r = (\theta^r/n^r)\overline{y}$, $\theta^r + \theta^m + \theta^p = 1$, and that $\overline{y}$, population shares and θ^r/θ^m are fixed. Then, for an increase in θ^m/θ^p to happen we have two possibilities: (i) it can be caused by an increase in θ^m which implies an increase in θ^r

and then in y^r because θ^r/θ^m must be fixed; (ii) it can be caused by a decrease in θ^p with θ^m constant (or a smaller decrease) which implies an increase in θ^r and then in y^r because we must have $\theta^r + \theta^m + \theta^p = 1$.

As for the third term, note that its sign depends on the sign of $\partial B/\partial(\theta^m/\theta^p)$ and $[1/(2\overline{y})]][1/B - 1/\overline{y}][1 + B/\overline{y}]^{-1/2} - [1/B^2][1 + B/\overline{y}]^{1/2}$ (we already now that $(\frac{n^m}{(\theta^m/\theta^p)} - n^p) < 0$). First, lets look at $\partial B/\partial(\theta^m/\theta^p)$, and recall that $B = (\overline{y}^2 - 8\beta(\theta^m/n^m)^2\overline{y}^2)^{1/2}$. Replacing $\overline{y} = (n^r/\theta^r)y^r$ we can write B as

$$B = [\overline{y}^2 - 8\beta(y^r n^r/n^m)^2/(\theta^r/\theta^m)^2]^{1/2} \tag{58}$$

Note that B in (58) is a function of θ^r/θ^m and y^r. We show now that $\partial B/\partial(\theta^m/\theta^p) < 0$. Differentiating B in (58) with respect to θ^m/θ^p, keeping $\overline{y}$, (θ^r/θ^m) and n^i for $i = r, m, p$ fixed, we have

$$\frac{\partial B}{\partial(\theta^m/\theta^p)} = \Big[\frac{1}{2}\Big]\Big[B\Big]^{-1}\Big[-\frac{y^r 16\beta(n^r/n^m)^2}{(\theta^r/\theta^m)^2}\Big]\Big[\frac{\partial y^r}{\partial(\theta^m/\theta^p)}\Big] \tag{59}$$

which is smaller that zero given that $\partial y^r/\partial(\theta^m/\theta^p) > 0$, as we showed in the last paragraph.

Finally, as for the term $[1/(2\overline{y})]][1/B - 1/\overline{y}][1 + B/\overline{y}]^{-1/2} - [1/B^2][1 + B/\overline{y}]^{1/2}$, we show that is it smaller than zero. To see this note that the term is smaller than zero if and only if

$$-B^2/\overline{y} < 2\overline{y} + B \tag{60}$$

and (60) always is true. Thus, since $(\frac{n^m}{(\theta^m/\theta^p)} - n^p) < 0$, $\partial B/\partial(\theta^m/\theta^p) < 0$ and $[1/(2\overline{y})]][1/B - 1/\overline{y}][1 + B/\overline{y}]^{-1/2} - [1/B^2][1 + B/\overline{y}]^{1/2} < 0$, then the third term in the sum on the right in (57) is also negative. □

Proposition 8. *For β satisfying (49) and sufficiently close to $\frac{\overline{y}^2}{8(y^m)^2}$, we have that $\frac{\partial}{\partial(\theta^r/\theta^m)}\Big(\frac{\partial\alpha^m}{\partial n^p}\Big) > 0$*

Proof. Differentiating $(\partial\alpha^m/\partial n^p)$ in (55) with respect to (θ^r/θ^m), keeping $\overline{y}$, (θ^m/θ^p) and n^i for $i = r, m, p$ fixed, we have

$$\begin{aligned}
\frac{\partial}{\partial(\theta^r/\theta^m)}\Big(\frac{\partial\alpha^m}{\partial n^p}\Big) &= -\frac{y^r n^r}{4\beta^{1/2} n^p n^m}\Big[1/B^2]\Big[1 + B/\overline{y}\Big]^{1/2}\Big[\frac{n^m}{(\theta^m/\theta^p)} - n^p\Big]\frac{\partial B}{\partial(\theta^r/\theta^m)} \\
&\quad + \frac{y^r n^r}{8\overline{y}\beta^{1/2} n^p n^m}\Big[1/B - 1/\overline{y}\Big]\Big[1 + B/\overline{y}\Big]^{-1/2}\Big[\frac{n^m}{(\theta^m/\theta^p)} - n^p\Big]\frac{\partial B}{\partial(\theta^r/\theta^m)} \\
&\quad + \frac{n^r}{4\beta^{1/2} n^p n^m}\Big[1/B - 1/\overline{y}\Big]\Big[1 + B/\overline{y}\Big]^{1/2}\Big[\frac{n^m}{(\theta^m/\theta^p)} - n^p\Big]\frac{\partial y^r}{\partial(\theta^r/\theta^m)}
\end{aligned} \tag{61}$$

which is equivalent to

$$\begin{aligned}
\frac{\partial}{\partial(\theta^r/\theta^m)}\Big(\frac{\partial\alpha^m}{\partial n^p}\Big) &= \Big[\frac{n^r}{4\beta^{1/2} n^p n^m}\Big]\Big[\frac{n^m}{(\theta^m/\theta^p)} - n^p\Big]\Big[1 + B/\overline{y}\Big]^{1/2}\Bigg(\Big[1/B - 1/\overline{y}\Big]\frac{\partial y^r}{\partial(\theta^r/\theta^m)} \\
&\quad + \frac{\partial B}{\partial(\theta^r/\theta^m)}\Big[y^r\Big]\Big[\Big[\frac{1}{2\overline{y}}\Big]\Big[1/B - 1/\overline{y}\Big]\Big[1 + B/\overline{y}\Big]^{-1} - \Big[1/B^2\Big]\Big]\Bigg)
\end{aligned} \tag{62}$$

Note that since $\frac{n^m}{(\theta^m/\theta^p)} - n^p < 0$, from (62) we have that $\frac{\partial}{\partial(\theta^r/\theta^m)}(\frac{\partial\alpha^m}{\partial n^p}) > 0$ if and only if

$$\Big[1/B - 1/\overline{y}\Big]\frac{\partial y^r}{\partial(\theta^r/\theta^m)} + \frac{\partial B}{\partial(\theta^r/\theta^m)}\Big[\Big[\frac{y^r}{2\overline{y}}\Big]\Big[1/B - 1/\overline{y}\Big]\Big[1 + B/\overline{y}\Big]^{-1} - y^r\Big[1/B^2\Big]\Big] < 0 \tag{63}$$

Now we establish some conditions under which (63) is satisfied. To do this, let us start by rewriting $\partial B/\partial(\theta^r/\theta^m)$ in (59) as

$$\frac{\partial B}{\partial(\theta^r/\theta^m)} = \Big[\frac{A}{2B}\Big]\Big[-\frac{\partial y^r}{\partial(\theta^r/\theta^m)} + \frac{y^r}{(\theta^r/\theta^m)}\Big] \tag{64}$$

where in (64) we have differentiated B in (58) with respect to θ^r/θ^m, and to simplify the notation, we have

replaced $A = \frac{y^r 16\beta(n^r/n^m)^2}{(\theta^r/\theta^m)^2}$. Replacing (64) in (63), and rearranging, we have that (63) is equivalent to

$$\Big[\frac{1}{B}-\frac{1}{\overline{y}}\Big]\Bigg[\frac{\partial y^r}{\partial(\theta^r/\theta^m)}+\Big[\frac{A}{2B}\Big]\Big[-\frac{\partial y^r}{\partial(\theta^r/\theta^m)}+\frac{y^r}{(\theta^r/\theta^m)}\Big]\Big[\frac{y^r}{2(\overline{y}+B)}\Big]\Bigg] < \Big[\frac{y^r A}{2B}\Big]\Big[-\frac{\partial y^r}{\partial(\theta^r/\theta^m)}+\frac{y^r}{(\theta^r/\theta^m)}\Big]\Big[\frac{1}{B^2}\Big] \tag{65}$$

Let us now establish the following result, that we will use below to identify the conditions under which (65) is satisfied:

$$-\frac{\partial y^r}{\partial(\theta^r/\theta^m)}+\frac{y^r}{(\theta^r/\theta^m)} > 0 \tag{66}$$

To verify (66) note that we can write $y^r = (\frac{\theta^r}{\theta^m})(\frac{y^m n^m}{n^r})$, thus differentiating this expression with respect to (θ^r/θ^m), we have :

$$\frac{\partial y^r}{\partial(\theta^r/\theta^m)} = \frac{y^m n^m}{n^r}+\Big(\frac{\theta^r}{\theta^m}\Big)\Big(\frac{n^m}{n^r}\Big)\frac{\partial y^m}{\partial(\theta^r/\theta^m)} \tag{67}$$

Replacing $n^g = (\theta^g/y^g)\overline{y}$ we can write $\frac{y^m n^m}{n^r} = \frac{y^r}{(\theta^r/\theta^m)}$, thus we have that

$$\frac{\partial y^r}{\partial(\theta^r/\theta^m)} = \frac{y^r}{(\theta^r/\theta^m)}+\Big(\frac{\theta^r}{\theta^m}\Big)\Big(\frac{n^m}{n^r}\Big)\frac{\partial y^m}{\partial(\theta^r/\theta^m)} \tag{68}$$

Note in (68) that (66) is satisfied if $\frac{\partial y^m}{\partial(\theta^r/\theta^m)} < 0$. To proof that this is the case first recall that $y^r = (\theta^r/n^r)\overline{y}$, $\theta^r+\theta^m+\theta^p = 1$, and that $\overline{y}$, population shares and θ^m/θ^p are fixed. The idea of the proof is to suppose that an increase in θ^r/θ^m implies an increase in y^m, and find a contradiction. If y^m increases, then θ^m should also increase, since $y^m = (\theta^m/n^m)\overline{y}$ and n^m and $\overline{y}$ are fixed. Then, if θ^m increases, θ^r should also increase at a greater rate, given that we also assume an increase in θ^r/θ^m. Thus, if both θ^m and θ^r increase, $\theta^r+\theta^m+\theta^p = 1$ is satisfied only if θ^p decreases. But if θ^m increases and θ^p decreases, then θ^m/θ^p should increase, so θ^m/θ^p can not be fixed.

Using (66), as well as the definition of A and B, it is easy to see that we can rewrite (65) as

$$\Big[\frac{B}{\overline{y}+B}\Big] < \frac{1}{\Big[\frac{B}{\overline{y}}\Big]\Big[\frac{\partial y^r/\partial(\theta^r/\theta^m)}{-\partial y^r/\partial(\theta^r/\theta^m)+y^r/(\theta^r/\theta^m)}\Big]+\frac{\overline{y}-B}{2\overline{y}}} \tag{69}$$

Note that a sufficient condition for (69) is that

$$\Big[\frac{B}{\overline{y}}\Big]\Big[\frac{\partial y^r/\partial(\theta^r/\theta^m)}{-\partial y^r/\partial(\theta^r/\theta^m)+y^r/(\theta^r/\theta^m)}\Big]+\frac{\overline{y}-B}{2\overline{y}} < 1 \tag{70}$$

which is equivalent to

$$\frac{\partial y^r/\partial(\theta^r/\theta^m)}{-\partial y^r/\partial(\theta^r/\theta^m)+y^r/(\theta^r/\theta^m)} < \frac{\overline{y}+B}{2B} \tag{71}$$

Under which conditions (71) is satisfied? First, let us define k as

$$\frac{\overline{y}+B}{2B} = k \tag{72}$$

Note in (72) that, $k > 1$ given that $\overline{y} > B$, which we proof before. Our objective now is to show that there is a β satisfying (49) and sufficiently close to $\frac{\overline{y}^2}{8(y^m)^2}$ such that for that β, there is a k sufficiently big such that (71) is always satisfied. To see this, recall that $B^2 = \overline{y}^2 - 8\beta(y^m)^2$; thus replacing this expression in (72), and rearranging, we have that (72) is equivalent to

$$1-\frac{1}{(2k-1)^2} = \frac{\overline{y}^2}{8(y^m)^2}-\beta \tag{73}$$

Note in (73) that $\frac{\overline{y}^2}{8(y^m)^2} > \beta$ given that $k > 1$; this implies that β satisfies (49) for β sufficiently close to $\frac{\overline{y}^2}{8(y^m)^2}$. Importantly, note that when $\beta \to \frac{\overline{y}^2}{8(y^m)^2}$, then we must have that $\frac{1}{(2k-1)^2} \to 0$, which happens when $k \to \infty$. And for k sufficiently big, then $\frac{\overline{y}+B}{2B}$ is also sufficiently big, and thus (71) is satisfied. $\square$

APPENDIX 2: FIGURES AND TABLES

Figure I

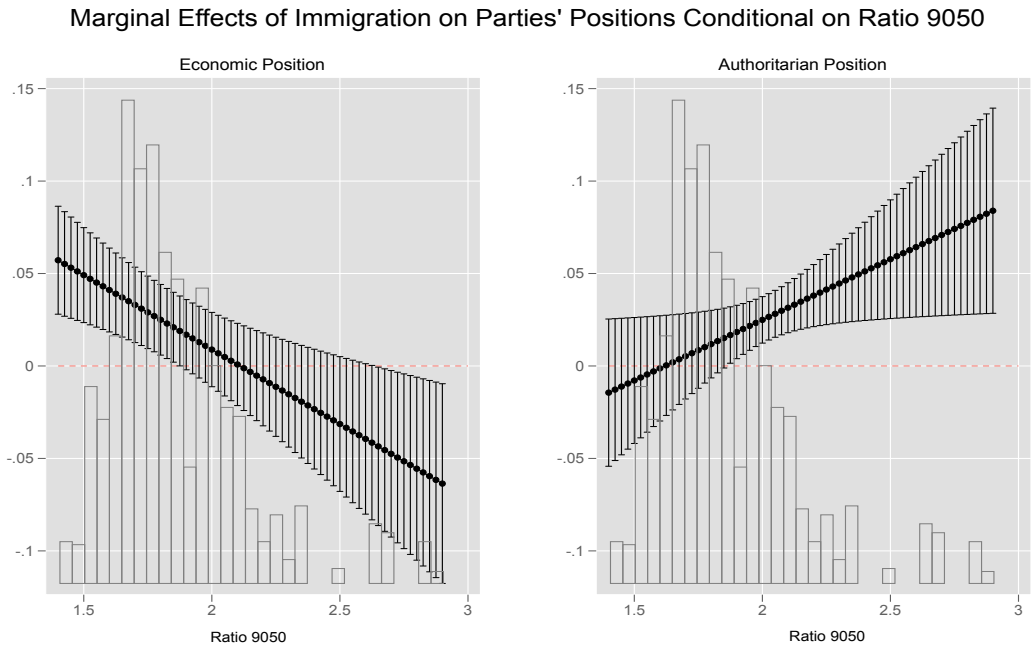

Figure II

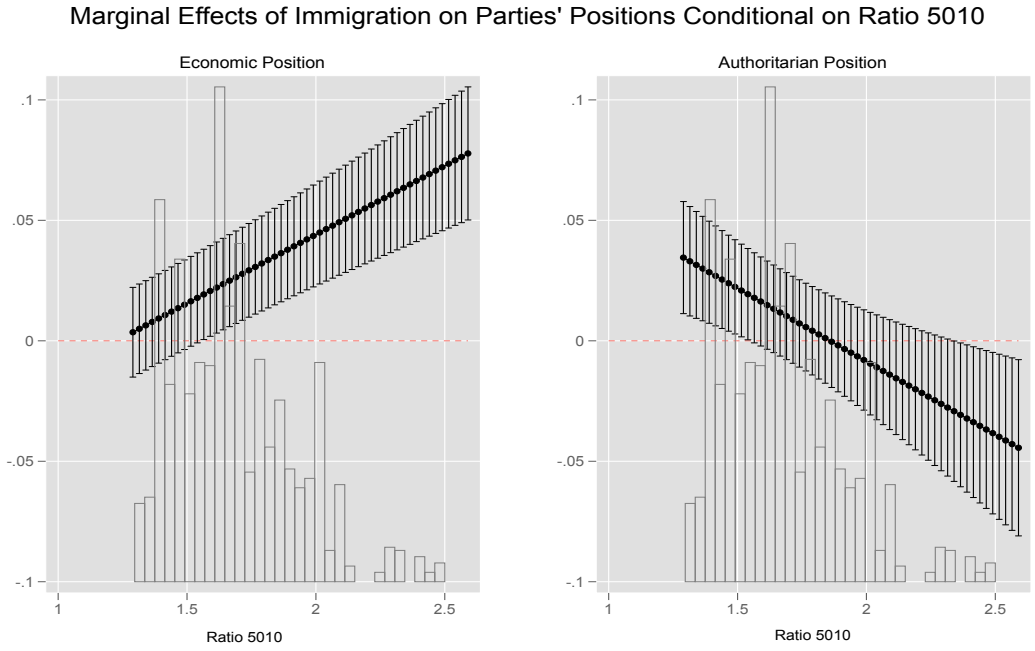

Figure III

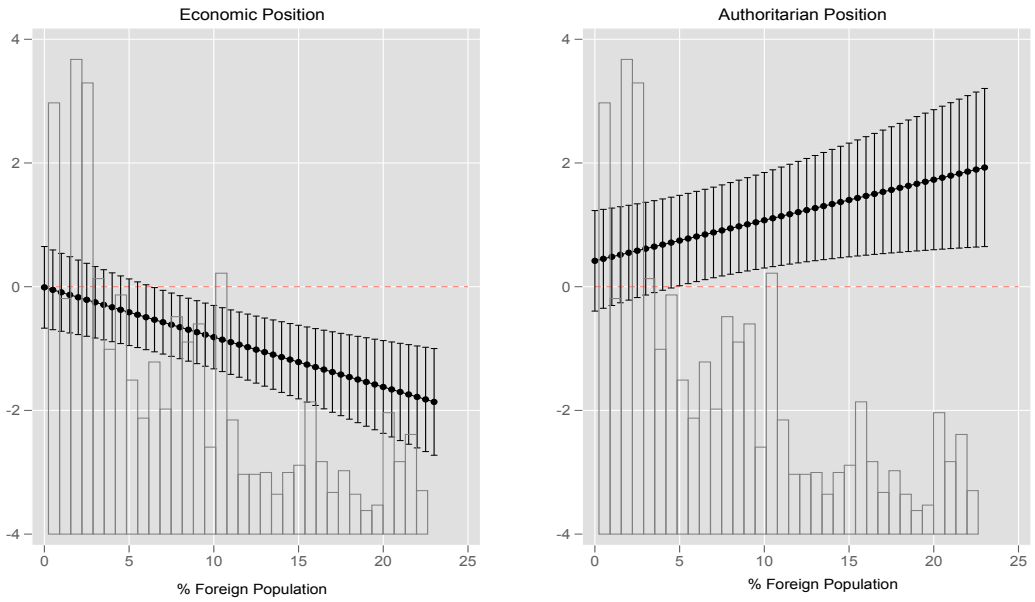

Figure IV

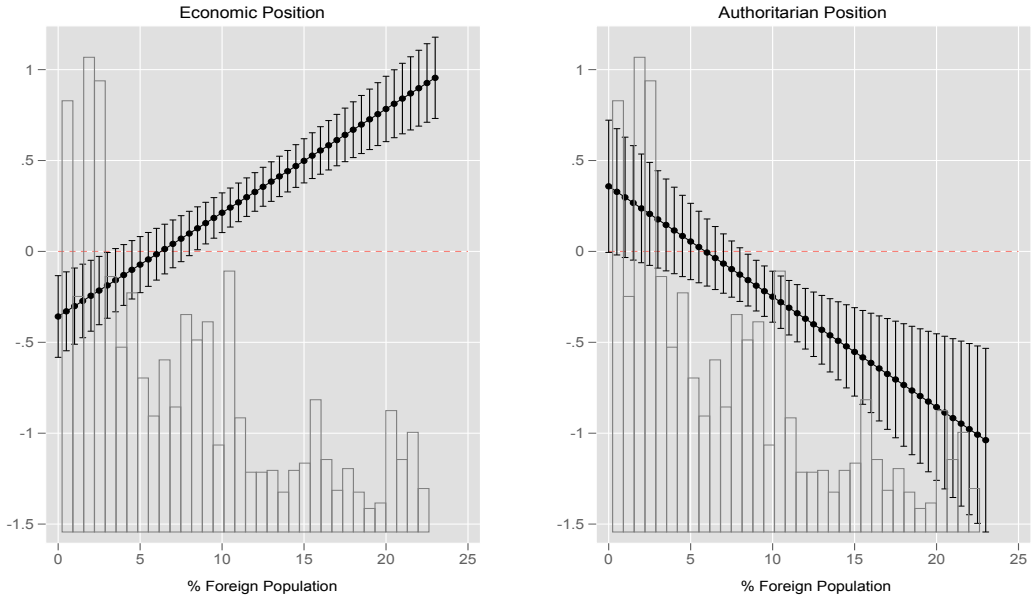

Table I: Construction of the economic left-right dimension and libertarian-authoritarian dimension

Panel A: Economic left-right dimension

Right-wing (liberal, reformist)		Left-wing (socialist, anti-reformist)	
per401	Free market economy: positive	per403	Market regulation: positive
per402	Incentives: positive	per404	Economic planning: positive
per407	Protectionism: negative	per405	Corporatism/mixed economy
per410	Economic Growth: positive	per406	Protectionism: positive
per414	Economic orthodoxy: positive	per409	Keynesian demand management
per505	Welfare state limitation: positive	per412	Controlled economy: positive
per507	Education limitation: negative	per413	Nationalization: positive
per702	Labour groups: negative	per415	Marxist analysis: positive
		per503	Equality: positive
		per504	Welfare state expansion: positive
		per506	Education expansion: positive
		per701	Labour groups: positive

Party economic left-right score = (per401 +per402 +per407 +per410 +per414 +per505 +per507 +per702) - (per403 +per404 +per405 +per406 +per409 +per412 +per413 +per415 +per503 +per504 +per506 +per701)

Panel B: Libertarian-authoritarian dimension

Right-wing (traditional, conservative)		Left-wing (modern, liberal)	
per305	Political authority	per201	Freedom and human rights
per601	National way of life: positive	per202	Democracy
per603	Traditional morality: positive	per416	Anti-Growth economy: positive
per605	Law and order: positive	per501	Environmental protection: positive
per606	Civic mindedness: positive	per502	Culture: positive
per608	Multiculturalism: negative	per602	National way of life: negative
		per604	Traditional morality: negative
		per607	Multiculturalism: positive
		per705	Minority groups: positive
		per706	Non-economic demographic groups: positive

Party values left-right score = (per305 +per601 +per603 +per605 +per608 +per606)-(per501 +per602 +per604 +per502 +per607 +per416 +per705 +per706 +per201 +per202)

Note: The data on the party positions is from the Manifesto Project Dataset, version 2016a (see Volkens *et al.*, 2016). This data is available for 1945-2015 and can be accessed at https://manifestoproject.wzb.eu/datasets.

Table II: Descriptive Statistics

	Whole sample			Base sample		
	obs.	mean	st.dev.	obs.	mean	st.dev.
	(1)	(2)	(3)	(4)	(5)	(6)
Economic right-wing score	4024	-0.132	0.160	1056	-0.150	0.170
Authoritarian score	4024	-0.059	0.186	1056	-0.066	0.166
90-50 ratio	1374	1.859	0.268	1056	1.847	0.261
50-10 ratio	1356	1.678	0.232	1056	1.679	0.240
Immigrants (foreign-born population)	2935	9.347	9.728	1056	9.056	7.224
Vote share	2957	17.232	15.099	918	15.836	13.738
Effective number of parties	2975	4.764	1.968	853	4.620	1.515
New party	3363	0.622	0.485	829	0.379	0.485
Niche party	3363	0.193	0.395	829	0.194	0.396
GDP growth	2549	2.710	2.695	1045	2.644	1.701
Elderly	2582	13.542	2.854	1045	14.086	2.525
EU Member	2690	0.494	0.500	1034	0.602	0.490
Openness Index	2582	75.862	40.942	1045	74.032	41.913
Labor market segmentation	328	1.340	0.102	266	1.353	0.095

Note: Data on the party positions used to construct the economic right-wing score and authoritarian score, as well as on vote shares, is from the Manifesto Project Dataset, version 2016a, (Volkens *et al.*, 2016) available at https://manifestoproject.wzb.eu/datasets. Data on the 90-50 ratio and 50-10 ratio is from the OECD (decile ratios of gross earnings, available at https://stats.oecd.org/) and Lupu and Pontusson (2011). Data on the foreign-born population, as well as on the effective number of parties, new and niche parties is from Tavits and Potter (2015). Data GDP growth, unemployment, social spending, elderly population and openness Index are from the Comparative Political Data Set (CPDS), 1960-2013 (Armingeon *et al.*, 2015) available at http://www.cpds-data.org/index.php/data. Data on labor market segmentation is from Alt and Iversen (2016)

Table III: Baseline results for economic preferences (no interaction terms)

	Dependent variable is economic right-wing score			
	(1)	(2)	(3)	(4)
90-50 ratio (lagged)	0.635**	0.611*	-0.371	-0.502
	(0.274)	(0.328)	(0.306)	(0.344)
50-10 ratio (lagged)	-0.051	-0.022	0.091	0.085
	(0.089)	(0.100)	(0.079)	(0.079)
Immigrants (lagged)	0.021**	0.024***	0.013	0.012
	(0.008)	(0.008)	(0.014)	(0.014)
Voter share (previous election)		0.000	0.001	0.001
		(0.001)	(0.001)	(0.001)
EU Member		0.036	0.028	0.028
		(0.028)	(0.035)	(0.030)
Effective number of parties (current election)			-0.002	-0.002
			(0.009)	(0.009)
Openness Index (lagged)				-0.002
				(0.001)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes	Yes
Number of parties	334	245	210	210
Number of countries	31	30	25	25
Observations	1056	900	756	756
R^2	0.320	0.331	0.355	0.355

Note: The dependent variable is our measure of economic right-wing preferences for each party for the period 1962-2015. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table IV: Baseline results for economic preferences (interaction terms)

	Dependent variable is economic right-wing score			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	-0.039**	-0.037*	-0.076***	-0.081**
	(0.016)	(0.019)	(0.026)	(0.030)
50-10 ratio× Immigrants (lagged)	0.038***	0.030**	0.061***	0.057***
	(0.013)	(0.014)	(0.010)	(0.010)
90-50 ratio (lagged)	0.857**	0.831**	0.075	-0.010
	(0.313)	(0.351)	(0.403)	(0.401)
50-10 ratio (lagged)	-0.344***	-0.252*	-0.387***	-0.358**
	(0.122)	(0.126)	(0.133)	(0.137)
Immigrants (lagged)	0.037	0.046	0.063	0.075
	(0.036)	(0.039)	(0.056)	(0.061)
Voter share (previous election)		0.000	0.001	0.001
		(0.001)	(0.001)	(0.001)
EU Member		0.043	0.037	0.040
		(0.027)	(0.031)	(0.029)
Effective number of parties (current election)			-0.001	-0.002
			(0.008)	(0.008)
Openness Index (lagged)				-0.002
				(0.001)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes	Yes
Number of parties	334	245	210	210
Number of countries	31	30	25	25
Observations	1056	900	756	756
R^2	0.325	0.335	0.367	0.368

Note: The dependent variable is our measure of economic right-wing preferences for each party for the period 1962-2015. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table V: Baseline results for authoritarian preferences (no interaction terms)

	Dependent variable is authoritarian score			
	(1)	(2)	(3)	(4)
90-50 ratio (lagged)	0.263	0.347*	0.764**	0.807**
	(0.187)	(0.173)	(0.363)	(0.371)
50-10 ratio (lagged)	-0.088	-0.061	-0.133	-0.131
	(0.130)	(0.113)	(0.094)	(0.096)
Immigrants (lagged)	0.014*	0.016	0.025*	0.025*
	(0.008)	(0.010)	(0.013)	(0.013)
Voter share (previous election)		0.000	0.000	0.000
		(0.001)	(0.001)	(0.001)
EU Member		-0.026	-0.027	-0.027
		(0.035)	(0.035)	(0.035)
Effective number of parties (current election)			-0.013	-0.013
			(0.013)	(0.014)
Openness Index (lagged)				0.001
				(0.002)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes	Yes
Number of parties	334	245	210	210
Number of countries	31	30	25	25
Observations	1056	900	756	756
R^2	0.243	0.260	0.303	0.304

Note: The dependent variable is our measure of authoritarian preferences for each party for the period 1962-2015. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table VI: Baseline results for authoritarian preferences (interaction terms)

	Dependent variable is authoritarian score			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	0.042***	0.029	0.065*	0.066*
	(0.014)	(0.018)	(0.035)	(0.037)
50-10 ratio× Immigrants (lagged)	-0.068***	-0.060***	-0.061***	-0.061**
	(0.011)	(0.011)	(0.021)	(0.022)
90-50 ratio (lagged)	0.055	0.194	0.408	0.418
	(0.198)	(0.197)	(0.529)	(0.494)
50-10 ratio (lagged)	0.463***	0.434***	0.362	0.358
	(0.150)	(0.150)	(0.215)	(0.221)
Immigrants (lagged)	0.038	0.051	-0.004	-0.005
	(0.040)	(0.045)	(0.077)	(0.084)
Voter share (previous election)		0.000	0.000	0.000
		(0.001)	(0.001)	(0.001)
EU Member		-0.026	-0.031	-0.032
		(0.035)	(0.040)	(0.041)
Effective number of parties (current election)			-0.013	-0.013
			(0.012)	(0.012)
Openness Index (lagged)				0.000
				(0.002)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes	Yes
Number of parties	334	245	210	210
Number of countries	31	30	25	25
Observations	1056	900	756	756
R^2	0.257	0.270	0.315	0.315

Note: The dependent variable is our measure of authoritarian preferences for each party for the period 1962-2015. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table VII: Effect of labor market segmentation

	Dependent variable is economic right-wing score (1)
90-50 ratio× Immigrants (lagged)	-0.079***
	(0.019)
50-10 ratio× Immigrants (lagged)	0.099***
	(0.016)
90-50 ratio (lagged)	1.237***
	(0.219)
50-10 ratio (lagged)	-1.556***
	(0.278)
Immigrants (lagged)	-0.109***
	(0.028)
Labor market segmentation (lagged)	-0.896**
	(0.307)
Labor market segmentation× Immigrants (lagged)	0.087***
	(0.023)
Voter share (previous election)	0.000
	(0.002)
Openness Index (lagged)	-0.003***
	(0.000)
Macroeconomic covariates	Yes
Year fixed effects	Yes
Year trend	Yes
Party level fixed effects	Yes
Number of parties	85
Number of countries	12
Observations	229
R^2	0.327

Note: The dependent variable is our measure of economic right-wing preferences for each party for the period 1962-2015. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table VIII: Results for economic preferences (with covariates at the party level)

	Dependent variable is economic right-wing score		
	(1)	(2)	(3)
90-50 ratio× Immigrants (lagged)	-0.077***	-0.076***	-0.078**
	(0.021)	(0.027)	(0.029)
50-10 ratio× Immigrants (lagged)	0.046***	0.059***	0.058***
	(0.013)	(0.010)	(0.010)
90-50 ratio (lagged)	0.643*	0.075	0.032
	(0.360)	(0.418)	(0.417)
50-10 ratio (lagged)	-0.290*	-0.382**	-0.372**
	(0.167)	(0.144)	(0.145)
Immigrants (lagged)	0.104**	0.067	0.072
	(0.046)	(0.057)	(0.061)
Voter share (previous election)	0.001	0.001	0.001
	(0.001)	(0.001)	(0.001)
EU Member	0.059**	0.031	0.033
	(0.028)	(0.031)	(0.031)
Effective number of parties (current election)	0.002	-0.002	-0.002
	(0.009)	(0.008)	(0.009)
New party (current election)	0.011	0.009	0.009
	(0.026)	(0.024)	(0.024)
Niche party (current election)	-0.069**	-0.065**	-0.065**
	(0.026)	(0.026)	(0.026)
Openness Index (lagged)			-0.001
			(0.001)
Macroeconomic covariates	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Year trend	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes
Number of parties	204	204	204
Number of countries	25	25	25
Observations	740	740	740
R^2	0.354	0.367	0.367

Note: The dependent variable is our measure of economic right-wing preferences for each party for the period 1962-2015. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table IX: Results for authoritarian preferences (with covariates at the party level)

	Dependent variable is authoritarian score		
	(1)	(2)	(3)
90-50 ratio× Immigrants (lagged)	0.072**	0.068*	0.068*
	(0.032)	(0.034)	(0.036)
50-10 ratio× Immigrants (lagged)	-0.054***	-0.060***	-0.060***
	(0.016)	(0.020)	(0.020)
90-50 ratio (lagged)	0.189	0.395	0.392
	(0.362)	(0.536)	(0.509)
50-10 ratio (lagged)	0.309	0.352*	0.352*
	(0.186)	(0.205)	(0.206)
Immigrants (lagged)	-0.033	-0.013	-0.013
	(0.067)	(0.075)	(0.081)
Voter share (previous election)	0.000	0.000	0.000
	(0.001)	(0.001)	(0.001)
EU Member	-0.040	-0.035	-0.034
	(0.040)	(0.043)	(0.046)
Effective number of parties (current election)	-0.015	-0.016	-0.016
	(0.012)	(0.012)	(0.012)
New party (current election)	0.049	0.049	0.049
	(0.029)	(0.029)	(0.029)
Niche party (current election)	0.050	0.052	0.052
	(0.030)	(0.030)	(0.030)
Openness Index (lagged)			-0.000
			(0.002)
Macroeconomic covariates	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Year trend	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes
Number of parties	204	204	204
Number of countries	25	25	25
Observations	740	740	740
R^2	0.326	0.327	0.327

Note: The dependent variable is our measure of party authoritarian preferences for each party for the period 1962-2015. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table X: Baseline results for economic preferences (party level random effects)

	Dependent variable is economic right-wing score			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	-0.035**	-0.035*	-0.076***	-0.078**
	(0.015)	(0.019)	(0.028)	(0.031)
50-10 ratio× Immigrants (lagged)	0.039***	0.030**	0.059***	0.058***
	(0.013)	(0.014)	(0.010)	(0.011)
90-50 ratio (lagged)	0.813***	0.787**	0.040	-0.005
	(0.300)	(0.344)	(0.403)	(0.401)
50-10 ratio (lagged)	-0.342***	-0.234*	-0.348***	-0.331**
	(0.124)	(0.129)	(0.132)	(0.148)
Immigrants (lagged)	0.023	0.042	0.064	0.071
	(0.034)	(0.039)	(0.057)	(0.063)
Voter share (previous election)		0.001*	0.001*	0.001*
		(0.000)	(0.000)	(0.000)
EU Member		0.040	0.031	0.033
		(0.026)	(0.029)	(0.029)
Effective number of parties (current election)			-0.000	-0.000
			(0.008)	(0.008)
Openness Index (lagged)				-0.001
				(0.001)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes	Yes
Number of parties	334	245	210	210
Number of countries	31	30	25	25
Observations	1056	900	756	756
R^2				

Note: The dependent variable is our measure of economic right-wing preferences for each party for the period 1962-2015. The estimation technique is random effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table XI: Baseline results for authoritarian preferences (party level random effects)

	Dependent variable is authoritarian score			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	0.032**	0.019	0.054	0.057
	(0.013)	(0.015)	(0.035)	(0.037)
50-10 ratio× Immigrants (lagged)	-0.066***	-0.058***	-0.059***	-0.056***
	(0.011)	(0.012)	(0.018)	(0.020)
90-50 ratio (lagged)	0.117	0.198	0.440	0.496
	(0.211)	(0.206)	(0.586)	(0.541)
50-10 ratio (lagged)	0.469***	0.457***	0.382*	0.360*
	(0.147)	(0.149)	(0.199)	(0.218)
Immigrants (lagged)	0.051	0.069	0.016	0.008
	(0.038)	(0.045)	(0.082)	(0.090)
Voter share (previous election)		0.002***	0.001**	0.001**
		(0.000)	(0.001)	(0.001)
EU Member		-0.018	-0.027	-0.028
		(0.033)	(0.039)	(0.040)
Effective number of parties (current election)			-0.009	-0.008
			(0.012)	(0.012)
Openness Index (lagged)				0.001
				(0.002)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes	Yes
Number of parties	334	245	210	210
Number of countries	31	30	25	25
Observations	1056	900	756	756
R^2				

Note: The dependent variable is our measure of authoritarian preferences for each party for the period 1962-2015. The estimation technique is random effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table XII: Baseline results for economic preferences (mixed effects)

	Dependent variable is economic right-wing score			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	-0.008**	-0.034***	-0.031***	-0.028***
	(0.004)	(0.009)	(0.009)	(0.009)
50-10 ratio× Immigrants (lagged)	0.009	0.024***	0.020**	0.018**
	(0.006)	(0.008)	(0.008)	(0.008)
90-50 ratio (lagged)	0.079	0.243***	0.215**	0.195**
	(0.064)	(0.093)	(0.091)	(0.089)
50-10 ratio (lagged)	-0.066	-0.243***	-0.165*	-0.144
	(0.078)	(0.091)	(0.095)	(0.095)
Immigrants (lagged)	-0.000	0.022	0.024*	0.023*
	(0.009)	(0.014)	(0.014)	(0.014)
Voter share (previous election)		0.000	0.000	0.000
		(0.001)	(0.001)	(0.001)
EU Member		0.016	0.012	0.019
		(0.017)	(0.017)	(0.018)
Effective number of parties (current election)		-0.006	-0.005	-0.003
		(0.006)	(0.006)	(0.006)
TPnewpartym		0.023	0.023	0.025
		(0.015)	(0.015)	(0.015)
TPnichem		-0.117***	-0.119***	-0.119***
		(0.022)	(0.022)	(0.021)
Openness Index (lagged)				-0.000
				(0.000)
_cons	-0.138	-0.157	-0.313	-0.323
	(0.131)	(0.190)	(0.208)	(0.204)
sd(country)	0.034***	0.033***	0.027***	0.023***
	(0.013)	(0.016)	(0.018)	(0.020)
sd(party)	0.120***	0.105***	0.105***	0.105***
	(0.007)	(0.008)	(0.008)	(0.008)
sd(Residual)	0.097***	0.096***	0.096***	0.096***
	(0.003)	(0.003)	(0.003)	(0.003)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Observations	1056	740	740	740

Note: The dependent variable is our measure of economic right-wing preferences for each party for the period 1962-2015. The estimation technique is multilevel mixed-effects. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table XIII: Baseline results for authoritarian preferences (mixed effects)

	Dependent variable is authoritarian score			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	0.007*	0.028***	0.028**	0.029***
	(0.004)	(0.011)	(0.011)	(0.010)
50-10 ratio× Immigrants (lagged)	-0.010	-0.018*	-0.016*	-0.017*
	(0.007)	(0.009)	(0.010)	(0.009)
90-50 ratio (lagged)	-0.045	-0.159	-0.155	-0.163
	(0.069)	(0.115)	(0.115)	(0.109)
50-10 ratio (lagged)	0.163**	0.213**	0.190*	0.205*
	(0.083)	(0.104)	(0.112)	(0.109)
Immigrants (lagged)	0.004	-0.023	-0.023	-0.022
	(0.010)	(0.017)	(0.017)	(0.016)
Voter share (previous election)		0.001*	0.001*	0.001*
		(0.001)	(0.001)	(0.001)
EU Member		-0.023	-0.025	-0.013
		(0.019)	(0.020)	(0.020)
Effective number of parties (current election)		-0.000	-0.000	0.003
		(0.007)	(0.007)	(0.007)
TPnewpartym		0.037**	0.037**	0.040***
		(0.015)	(0.015)	(0.015)
TPnichem		-0.077***	-0.077***	-0.077***
		(0.021)	(0.021)	(0.021)
Openness Index (lagged)				-0.001**
				(0.000)
_cons	-0.315**	-0.230	-0.192	-0.208
	(0.139)	(0.228)	(0.258)	(0.246)
sd(country)	0.042***	0.073***	0.072***	0.060***
	(0.012)	(0.017)	(0.017)	(0.016)
sd(party)	0.123***	0.100***	0.100***	0.100***
	(0.007)	(0.008)	(0.008)	(0.008)
sd(Residual)	0.101***	0.098***	0.098***	0.098***
	(0.003)	(0.003)	(0.003)	(0.003)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Observations	1056	740	740	740

Note: The dependent variable is our measure of authoritarian preferences for each party for the period 1962-2015. The estimation technique is multilevel mixed-effects. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table XIV: Baseline results for economic preferences (country-level)

	Dependent variable is economic right-wing score			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	-0.043**	-0.077*	-0.089	-0.089
	(0.018)	(0.041)	(0.058)	(0.062)
50-10 ratio× Immigrants (lagged)	0.034**	0.054***	0.060***	0.059**
	(0.017)	(0.018)	(0.020)	(0.025)
90-50 ratio (lagged)	0.715**	0.857*	0.486	0.469
	(0.308)	(0.479)	(1.018)	(0.935)
50-10 ratio (lagged)	-0.198	-0.359	-0.392	-0.387
	(0.172)	(0.321)	(0.269)	(0.300)
Immigrants (lagged)	0.046	0.088	0.086	0.087
	(0.047)	(0.081)	(0.124)	(0.138)
Voter share (previous election)		0.001	0.000	0.000
		(0.001)	(0.001)	(0.001)
Effective number of parties (current election)		-0.002	-0.007	-0.007
		(0.019)	(0.013)	(0.014)
EU Member		-0.011	-0.051	-0.051
		(0.055)	(0.055)	(0.056)
Openness Index (lagged)				-0.000
				(0.004)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes
Number of countries	31	24	24	24
Observations	163	124	124	124
R^2	0.864	0.890	0.916	0.917

Note: The dependent variable is our measure of economic right-wing preferences of the parties in a country defined as the weighted sum of the party positions within each country for the period 1962-2015. We weight the influence of each party on the country based on its vote share. The estimation technique is fixed effects OLS at the country level. All the regressors are lagged by their average in the last 5 years. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table XV: Baseline results for authoritarian preferences (country-level)

	Dependent variable is authoritarian score			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	0.044	0.072	0.069	0.070
	(0.029)	(0.048)	(0.049)	(0.053)
50-10 ratio× Immigrants (lagged)	-0.067**	-0.080***	-0.079***	-0.077**
	(0.025)	(0.026)	(0.026)	(0.028)
90-50 ratio (lagged)	0.122	0.438	0.378	0.433
	(0.291)	(0.364)	(0.776)	(0.733)
50-10 ratio (lagged)	0.571*	0.538	0.533	0.517
	(0.280)	(0.347)	(0.355)	(0.380)
Immigrants (lagged)	0.015	-0.004	-0.003	-0.008
	(0.070)	(0.115)	(0.121)	(0.131)
Voter share (previous election)		0.000	0.000	0.000
		(0.001)	(0.001)	(0.001)
Effective number of parties (current election)		0.013	0.012	0.012
		(0.015)	(0.016)	(0.016)
EU Member		-0.064	-0.072	-0.070
		(0.083)	(0.090)	(0.089)
Openness Index (lagged)				0.001
				(0.003)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes
Number of countries	31	24	24	24
Observations	163	124	124	124
R^2	0.829	0.927	0.928	0.929

Note: The dependent variable is our measure of authoritarian preferences fof the parties in a country defined as the weighted sum of the party positions within each country for the period 1962-2015. We weight the influence of each party on the country based on its vote share. The estimation technique is fixed effects OLS at the country level. All the regressors are lagged by their average in the last 5 years. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table XVI: Baseline results for economic preferences for 5 years averages (interaction terms)

	Dependent variable is economic right-wing score		
	(1)	(2)	(3)
90-50 ratio× Immigrants (lagged)	-0.037*	-0.036*	-0.044**
	(0.020)	(0.020)	(0.017)
50-10 ratio× Immigrants (lagged)	0.021*	0.020	0.016
	(0.012)	(0.014)	(0.012)
90-50 ratio (lagged)	0.729***	0.739***	0.814***
	(0.253)	(0.239)	(0.181)
50-10 ratio (lagged)	-0.428***	-0.415***	-0.366***
	(0.131)	(0.143)	(0.118)
Immigrants (lagged)	0.030	0.033	0.053*
	(0.030)	(0.030)	(0.027)
Voter share (previous election)	0.000	0.000	0.000
	(0.001)	(0.001)	(0.001)
Effective number of parties (current election)	0.008	0.008	0.002
	(0.009)	(0.008)	(0.007)
EU Member	0.006	0.006	0.020
	(0.028)	(0.027)	(0.029)
Openness Index (lagged)			-0.002***
			(0.001)
Macroeconomic covariates	No	Yes	Yes
5 year period fixed effects	Yes	Yes	Yes
5 year period trend	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes
Number of parties	239	239	239
Number of countries	26	26	26
Observations	580	580	580
R^2	0.244	0.245	0.261

Note: The dependent variable is our measure of economic right-wing preferences for each party for the period 1962-2015. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table XVII: Baseline results for authoritarian preferences for 5 years averages (interaction terms)

	Dependent variable is authoritarian score		
	(1)	(2)	(3)
90-50 ratio× Immigrants (lagged)	0.080***	0.078***	0.074***
	(0.014)	(0.015)	(0.014)
50-10 ratio× Immigrants (lagged)	-0.031***	-0.026**	-0.028**
	(0.010)	(0.010)	(0.010)
90-50 ratio (lagged)	-0.431**	-0.417**	-0.381**
	(0.173)	(0.164)	(0.154)
50-10 ratio (lagged)	0.252*	0.184	0.207
	(0.130)	(0.140)	(0.136)
Immigrants (lagged)	-0.082***	-0.091***	-0.081***
	(0.015)	(0.017)	(0.015)
Voter share (previous election)	0.001	0.001	0.001
	(0.001)	(0.001)	(0.001)
Effective number of parties (current election)	-0.018*	-0.019**	-0.022**
	(0.009)	(0.008)	(0.010)
EU Member	0.016	0.015	0.022
	(0.019)	(0.019)	(0.022)
Openness Index (lagged)			-0.001
			(0.001)
Macroeconomic covariates	No	Yes	Yes
5 year period fixed effects	Yes	Yes	Yes
5 year period trend	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes
Number of parties	239	239	239
Number of countries	26	26	26
Observations	580	580	580
R^2	0.282	0.288	0.291

Note: The dependent variable is our measure of authoritarian preferences for each party for the period 1962-2015. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table XVIII: Baseline results for economic preferences (Arellano-Bond GMM)

	Dependent variable is economic right-wing score		
	(1)	(2)	(3)
Economic right-wing score (lagged)	0.263***	0.288***	0.258***
	(0.069)	(0.070)	(0.073)
90-50 ratio× Immigrants (lagged)	-0.031**	-0.034**	-0.045***
	(0.014)	(0.016)	(0.016)
50-10 ratio× Immigrants (lagged)	0.044***	0.050***	0.050***
	(0.013)	(0.015)	(0.014)
90-50 ratio (lagged)	0.521***	0.519**	0.613***
	(0.195)	(0.199)	(0.201)
50-10 ratio (lagged)	-0.581***	-0.657***	-0.651***
	(0.113)	(0.151)	(0.147)
Immigrants (lagged)	-0.019	-0.029	-0.009
	(0.023)	(0.021)	(0.021)
Voter share (previous election)	-0.000	-0.000	-0.000
	(0.001)	(0.002)	(0.001)
Effective number of parties (current election)	0.004	0.001	-0.006
	(0.007)	(0.007)	(0.007)
EU Member	0.015	0.015	0.032
	(0.023)	(0.020)	(0.022)
Openness Index (lagged)			-0.002**
			(0.001)
Macroeconomic covariates	No	Yes	Yes
5 year period fixed effects	Yes	Yes	Yes
5 year period trend	Yes	Yes	Yes
Number of countries	118	118	118
Observations	331	331	331
AR(2) test	0.627	0.547	0.490
Hansen J test	0.741	0.695	0.702

Note: The dependent variable is our measure of economic right-wing preferences for each party for the period 1962-2015. As estimation technique we use the Arellano-Bond GMM, with robust standard errors. The AR2 row reports the p-value for a test of serial correlation in the residuals. Robust standard errors are reported in parentheses. * significant at 1%, ** significant at 5%, *** significant at 1%

Table XIX: Baseline results for authoritarian preferences (Arellano-Bond GMM)

	Dependent variable is Authoritarian score		
	(1)	(2)	(3)
Authoritarian score (lagged)	0.197*	0.204*	0.222*
	(0.107)	(0.110)	(0.112)
90-50 ratio× Immigrants (lagged)	0.047**	0.042*	0.033
	(0.023)	(0.025)	(0.026)
50-10 ratio× Immigrants (lagged)	-0.029*	-0.024	-0.023
	(0.016)	(0.018)	(0.018)
90-50 ratio (lagged)	-0.100	-0.046	0.016
	(0.273)	(0.276)	(0.281)
50-10 ratio (lagged)	0.236	0.168	0.166
	(0.168)	(0.189)	(0.190)
Immigrants (lagged)	-0.019	-0.022	-0.007
	(0.032)	(0.032)	(0.032)
Voter share (previous election)	0.000	0.000	0.000
	(0.002)	(0.002)	(0.002)
Effective number of parties (current election)	-0.017**	-0.019**	-0.024***
	(0.007)	(0.007)	(0.007)
EU Member	0.024	0.024	0.035
	(0.032)	(0.031)	(0.031)
Openness Index (lagged)			-0.002**
			(0.001)
Macroeconomic covariates	No	Yes	Yes
5 year period fixed effects	Yes	Yes	Yes
5 year period trend	Yes	Yes	Yes
Number of countries	118	118	118
Observations	331	331	331
AR(2) test	0.020	0.024	0.017
Hansen J test	0.770	0.753	0.841

Note: The dependent variable is our measure of authoritarian preferences for each party for the period 1962-2015. As estimation technique we use the Arellano-Bond GMM, with robust standard errors. The AR2 row reports the p-value for a test of serial correlation in the residuals. Robust standard errors are reported in parentheses. * significant at 1%, ** significant at 5%, *** significant at 1%.

Table XX: Results for economic preferences by party ideology

	Left-wing parties		Right-wing parties	
	Right-wing economic score	Authoritarian score	Right-wing economic score	Authoritarian score
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	-0.084***	0.056*	-0.074**	0.074**
	(0.026)	(0.027)	(0.028)	(0.032)
50-10 ratio× Immigrants (lagged)	0.032**	-0.143***	0.068***	-0.011
	(0.013)	(0.019)	(0.018)	(0.018)
90-50 ratio (lagged)	0.920**	0.078	0.526	0.444
	(0.413)	(0.361)	(0.346)	(0.537)
50-10 ratio (lagged)	-0.060	1.167***	-0.565**	-0.189
	(0.188)	(0.231)	(0.257)	(0.261)
Immigrants (lagged)	0.124**	0.128*	0.068	-0.110
	(0.054)	(0.066)	(0.060)	(0.067)
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes	Yes
Number of parties	123	123	125	125
Number of countries	25	25	25	25
Observations	412	412	417	417
R^2	0.432	0.393	0.425	0.376

Note: The dependent variable is our measure of economic right-wing preferences for each party for the period 1962-2015. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table XXI: Baseline results for national way of life preferences

	Dependent variable is national way of life			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	0.010***	0.016***	0.016***	0.016***
	(0.003)	(0.003)	(0.003)	(0.003)
50-10 ratio× Immigrants (lagged)	-0.025***	-0.024***	-0.025***	-0.025***
	(0.002)	(0.003)	(0.002)	(0.002)
90-50 ratio (lagged)	0.035	0.033	0.082	0.082
	(0.032)	(0.058)	(0.076)	(0.076)
50-10 ratio (lagged)	0.167***	0.147***	0.156***	0.156***
	(0.034)	(0.051)	(0.048)	(0.047)
Immigrants (lagged)	0.023***	0.005	0.008	0.008
	(0.004)	(0.004)	(0.005)	(0.006)
Voter share (previous election)		0.000	0.000	0.000
		(0.000)	(0.000)	(0.000)
Effective number of parties (current election)		-0.003	-0.002	-0.002
		(0.002)	(0.002)	(0.002)
EU Member		-0.009	-0.007	-0.007
		(0.011)	(0.011)	(0.011)
Openness Index (lagged)				0.000
				(0.000)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes	Yes
Number of parties	334	210	210	210
Number of countries	31	25	25	25
Observations	1056	756	756	756
R^2	0.208	0.264	0.266	0.266

Note: The dependent variable is a measure of National Way of Life for each party for the period 1962-2015, that we define as per601-per602, using the notation in the Manifesto Project Database. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 1%, ** significant at 5%, *** significant at 1%.

Table XXII: Baseline results for nationalism

	Dependent variable is nationalism			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	0.011*	0.021***	0.016**	0.015*
	(0.006)	(0.006)	(0.007)	(0.008)
50-10 ratio× Immigrants (lagged)	-0.030***	-0.023***	-0.030***	-0.031***
	(0.005)	(0.005)	(0.004)	(0.005)
90-50 ratio (lagged)	0.088	0.183	0.448***	0.431***
	(0.089)	(0.119)	(0.157)	(0.144)
50-10 ratio (lagged)	0.218***	0.119*	0.174***	0.180***
	(0.045)	(0.058)	(0.054)	(0.055)
Immigrants (lagged)	0.031***	0.002	0.026	0.028
	(0.011)	(0.014)	(0.019)	(0.021)
Voter share (previous election)		-0.000	-0.000	-0.000
		(0.000)	(0.000)	(0.000)
Effective number of parties (current election)		-0.003	-0.003	-0.003
		(0.003)	(0.003)	(0.003)
EU Member		-0.018	-0.010	-0.010
		(0.013)	(0.012)	(0.011)
Openness Index (lagged)				-0.000
				(0.000)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes	Yes
Number of parties	334	210	210	210
Number of countries	31	25	25	25
Observations	1056	756	756	756
R^2	0.179	0.196	0.215	0.215

Note: The dependent variable is a measure of Nationalism for the period 1962-2015, that we define as (per601+ per608)-(per602 +per607 +per705), using the notation in the Manifesto Project Database. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 1%, ** significant at 5%, *** significant at 1%.

Table XXIII: Baseline results for against multiculturalism

	Dependent variable is against Multiculturalism			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	0.001	0.000	-0.001	-0.002
	(0.003)	(0.003)	(0.004)	(0.004)
50-10 ratio× Immigrants (lagged)	-0.001	0.003	0.001	0.000
	(0.002)	(0.002)	(0.003)	(0.003)
90-50 ratio (lagged)	0.043	0.119**	0.183**	0.165**
	(0.061)	(0.055)	(0.076)	(0.073)
50-10 ratio (lagged)	0.042	-0.016	-0.002	0.004
	(0.028)	(0.035)	(0.038)	(0.039)
Immigrants (lagged)	0.002	-0.000	0.006	0.009
	(0.007)	(0.008)	(0.011)	(0.012)
Voter share (previous election)		-0.000	-0.000	-0.000
		(0.000)	(0.000)	(0.000)
Effective number of parties (current election)		0.003	0.002*	0.002
		(0.002)	(0.001)	(0.001)
EU Member		-0.007	-0.005	-0.005
		(0.005)	(0.005)	(0.004)
Openness Index (lagged)				-0.000
				(0.000)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes	Yes
Number of parties	334	210	210	210
Number of countries	31	25	25	25
Observations	1056	756	756	756
R^2	0.112	0.122	0.125	0.126

Note: The dependent variable is a measure of unfavorable view of Multiculturalism for the period 1962-2015, that we define as per608-per607, using the notation in the Manifesto Project Database. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table XXIV: Baseline results for against policies pro underprivileged minority groups

	Dependent variable is against pro underprivileged			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	0.001	0.004	0.001	0.001
	(0.004)	(0.004)	(0.004)	(0.004)
50-10 ratio× Immigrants (lagged)	-0.004*	-0.002	-0.006**	-0.006**
	(0.002)	(0.004)	(0.002)	(0.003)
90-50 ratio (lagged)	0.009	0.031	0.184**	0.184**
	(0.045)	(0.065)	(0.084)	(0.084)
50-10 ratio (lagged)	0.009	-0.012	0.020	0.020
	(0.018)	(0.041)	(0.031)	(0.034)
Immigrants (lagged)	0.007	-0.003	0.011	0.011
	(0.006)	(0.008)	(0.009)	(0.010)
Voter share (previous election)		-0.000**	-0.000**	-0.000**
		(0.000)	(0.000)	(0.000)
Effective number of parties (current election)		-0.003*	-0.003*	-0.003*
		(0.002)	(0.002)	(0.002)
EU Member		-0.002	0.002	0.002
		(0.004)	(0.004)	(0.004)
Openness Index (lagged)				0.000
				(0.000)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes	Yes
Number of parties	334	210	210	210
Number of countries	31	25	25	25
Observations	1056	756	756	756
R^2	0.188	0.196	0.241	0.241

Note: The dependent variable is a measure of unfavorable view of politics in favour of underprivileged Minority Groups for the period 1962-2015, that we define as -per705, using the notation in the Manifesto Project Database. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table XXV: Baseline results for against pro refugees

	Dependent variable is against pro refugees			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
50-10 ratio× Immigrants (lagged)	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
90-50 ratio (lagged)	0.000	0.000	0.001	0.001
	(0.000)	(0.001)	(0.001)	(0.001)
50-10 ratio (lagged)	-0.000	-0.001	-0.000	-0.001
	(0.000)	(0.001)	(0.000)	(0.000)
Immigrants (lagged)	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Voter share (previous election)		-0.000	-0.000	-0.000
		(0.000)	(0.000)	(0.000)
Effective number of parties (current election)		-0.000*	-0.000*	-0.000**
		(0.000)	(0.000)	(0.000)
EU Member		0.000	0.000	0.000
		(0.000)	(0.000)	(0.000)
Openness Index (lagged)				0.000**
				(0.000)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes	Yes
Number of parties	334	210	210	210
Number of countries	31	25	25	25
Observations	1056	756	756	756
R^2	0.224	0.232	0.236	0.240

Note: The dependent variable is a measure of unfavorable view of politics in favour of Refugees for the period 1962-2015, that we define as -per7062, using the notation in the Manifesto Project Database. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table XXVI: Baseline results for against pro citizenship

	Dependent variable is against pro citizenship			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	0.000	-0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
50-10 ratio× Immigrants (lagged)	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
90-50 ratio (lagged)	0.001	0.001	0.000	-0.000
	(0.002)	(0.001)	(0.000)	(0.001)
50-10 ratio (lagged)	-0.002	-0.000	-0.001	-0.001*
	(0.001)	(0.000)	(0.000)	(0.000)
Immigrants (lagged)	-0.000	0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Voter share (previous election)		-0.000	-0.000	-0.000
		(0.000)	(0.000)	(0.000)
Effective number of parties (current election)		-0.000**	-0.000**	-0.000***
		(0.000)	(0.000)	(0.000)
EU Member		-0.000	-0.000	-0.000
		(0.000)	(0.000)	(0.000)
Openness Index (lagged)				-0.000*
				(0.000)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Country-specific time trends	Yes	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes	Yes
Number of parties	334	210	210	210
Number of countries	31	25	25	25
Observations	1056	756	756	756
R^2	0.158	0.318	0.319	0.319

Note: The dependent variable is a measure of favorable mentions of restrictions in citizenship; for the period 1962-2015, that we define as per2022-per2023, using the notation in the Manifesto Project Database. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table XXVII: Effect of post 2008 economic preferences

	Dependent variable is economic right-wing score			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	-0.037**	-0.037**	-0.035**	-0.037**
	(0.014)	(0.014)	(0.014)	(0.014)
50-10 ratio× Immigrants (lagged)	0.023***	0.025**	0.021*	0.019*
	(0.008)	(0.009)	(0.011)	(0.011)
90-50 ratio (lagged)	0.472**	0.430*	0.450*	0.547**
	(0.223)	(0.239)	(0.232)	(0.233)
50-10 ratio (lagged)	-0.291**	-0.306**	-0.266*	-0.267*
	(0.115)	(0.131)	(0.153)	(0.149)
Immigrants (lagged)	0.031	0.030	0.034	0.045*
	(0.020)	(0.020)	(0.024)	(0.026)
post 2008 × 90-50 ratio (lagged)	-0.278***	-0.355***	-0.351***	-0.363***
	(0.091)	(0.105)	(0.109)	(0.106)
post 2008 × 50-10 ratio (lagged)	-0.009	-0.005	-0.007	-0.013
	(0.082)	(0.095)	(0.096)	(0.091)
post 2008 × Immigrants (lagged)	-0.068***	-0.082***	-0.082***	-0.086***
	(0.023)	(0.023)	(0.023)	(0.024)
post 2008 × 90-50 ratio × Immigrants (lagged)	0.035***	0.043***	0.043***	0.046***
	(0.011)	(0.012)	(0.012)	(0.014)
post 2008 × 50-10 ratio × Immigrants (lagged)	0.002	0.002	0.002	-0.000
	(0.005)	(0.006)	(0.006)	(0.007)
Voter share (previous election)		0.000	0.000	0.000
		(0.001)	(0.001)	(0.001)
EU Member		0.031	0.033*	0.040*
		(0.019)	(0.019)	(0.021)
Openness Index (lagged)				-0.001
				(0.001)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes	Yes
Number of parties	334	245	245	245
Number of countries	31	30	30	30
Observations	1056	900	900	900
R^2	0.269	0.286	0.287	0.289

Note: The dependent variable is our measure of economic right-wing preferences for each party for the period 1962-2015. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.

Table XXVIII: Effect of post 2008 for authoritarian preferences

	Dependent variable is authoritarian score			
	(1)	(2)	(3)	(4)
90-50 ratio× Immigrants (lagged)	0.054***	0.045***	0.046***	0.044***
	(0.007)	(0.007)	(0.008)	(0.008)
50-10 ratio× Immigrants (lagged)	-0.047***	-0.041***	-0.042***	-0.044***
	(0.007)	(0.008)	(0.009)	(0.010)
90-50 ratio (lagged)	-0.050	-0.032	-0.025	0.059
	(0.136)	(0.139)	(0.142)	(0.146)
50-10 ratio (lagged)	0.299***	0.284***	0.298**	0.298**
	(0.075)	(0.096)	(0.111)	(0.108)
Immigrants (lagged)	-0.016	-0.011	-0.009	0.000
	(0.016)	(0.021)	(0.018)	(0.019)
post 2008 × 90-50 ratio (lagged)	0.121	0.109	0.110	0.100
	(0.109)	(0.132)	(0.138)	(0.134)
post 2008 × 50-10 ratio (lagged)	-0.206*	-0.193	-0.194	-0.198
	(0.115)	(0.120)	(0.123)	(0.119)
post 2008 × Immigrants (lagged)	-0.002	0.002	0.002	-0.001
	(0.022)	(0.021)	(0.023)	(0.024)
post 2008 × 90-50 ratio × Immigrants (lagged)	-0.003	-0.003	-0.003	-0.000
	(0.010)	(0.012)	(0.013)	(0.013)
post 2008 × 50-10 ratio × Immigrants (lagged)	0.000	-0.000	-0.000	-0.002
	(0.008)	(0.009)	(0.010)	(0.009)
Voter share (previous election)		0.000	0.000	0.000
		(0.001)	(0.001)	(0.001)
EU Member		-0.001	-0.000	0.006
		(0.022)	(0.023)	(0.023)
Openness Index (lagged)				-0.001
				(0.001)
Macroeconomic covariates	No	No	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Year trend	Yes	Yes	Yes	Yes
Party level fixed effects	Yes	Yes	Yes	Yes
Number of parties	334	245	245	245
Number of countries	31	30	30	30
Observations	1056	900	900	900
R^2	0.246	0.245	0.245	0.247

Note: The dependent variable is our measure of authoritarian preferences for each party for the period 1962-2015. The estimation technique is fixed effects OLS at the party level. All the country level regressors are lagged by their average in the last 5 years, and those at the party level are lagged by the previous election. Macroeconomics covariates includes GDP growth, unemployment, social spending, and elderly population. Robust standard errors clustered by country are reported in parentheses. * significant at 10%, ** significant at 5%, *** significant at 1%.