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ABSTRACT

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This paper shows that cross country differences in the generosity and the quality of the welfare state are associated with differences in the trustworthiness of their citizens. We show that generous, transparent and efficient welfare states in Scandinavian countries are based on the civicness of their citizens. In contrast, the generosity but low transparency of the Continental European welfare states survive thanks to the support of a large share of uncivic individuals who consider that it can be justifiable to misbehave with taxes and social benefits. We also explain why countries with an intermediate degree of trustworthiness of their citizens and of transparency of the government, like Anglo-Saxon countries, have small welfare states. Overall, this paper provides a rationale for the observed persistence of both efficient and inefficient welfare states, as a function of the civicness of the citizens.

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1 Introduction

Why are welfare states so generous and transparent in Scandinavian countries? Why are Continental European welfare states as large as in Scandinavian countries, but perceived as much less transparent and efficient by their citizens? Why do most Anglo-Saxon countries have relatively small welfare states? This paper shows that part of the answer to these questions can be explained by the cross country heterogeneity in trustworthiness that shapes the demand for redistribution and the efficiency of the welfare states.

In a cross section of countries, we first show the existence of a non monotonous relationship between trust and the generosity of the welfare states in OECD countries. Figure 1 shows the relationship between the share of social expenditure in GDP and the country level of trust in 2000.[1] The relation is first increasing for low trust countries, reaching a local maximum for countries with a relatively low level of trust like France, Belgium, Germany and Italy. The relation then becomes decreasing, reaching a local minimum for the Anglo-Saxon countries and Japan. Finally, the relationship starts increasing again with the country level of trust, reaching a peak for Scandinavian countries. Figure 2 shows a similar relationship between the transparency of the welfare state, measured with the corruption perception index,[2] and the size of the welfare state.

These two figures show that countries with low trust and low transparency of the government can have welfare states as large as countries with high trust and high transparency of the government. Moreover, countries with intermediate levels of trust and transparency of the government have relatively small welfare states. We show that this non monotonous relationship exists for various measures of the scope of the welfare state. This relationship also holds when one looks at the conditional levels of trust and transparency of the government, controlling for a large set of socio economic variables such as education, income, occupation, religiosity and political orientation.

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[1]Social expenditure is defined as total social public expenditure in the OECD Social Expenditure Database. The variable trust is measured as the answer to the following question of the World Values Survey:"*Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?*". The answer can be either "*Most people can be trusted*", which corresponds to the value 1, or"*Can't be too careful*", corresponding to the value 0.

[2]The index comes from Transparency International. This index can take on values from zero for the most corrupt governments to 1 for the least corrupt. The original index which takes on values from zero to 10 has been rescaled to ease comparisons with the measure of generalized trust.
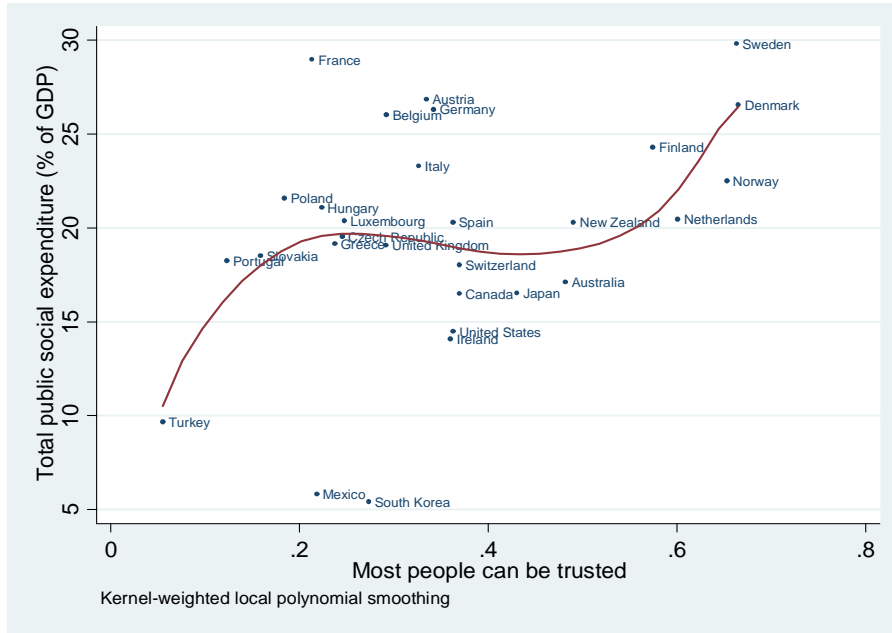
Figure 1: Trust and public social expenditure in 2000. Source: World Values Survey and OECD social expenditure DataBase.
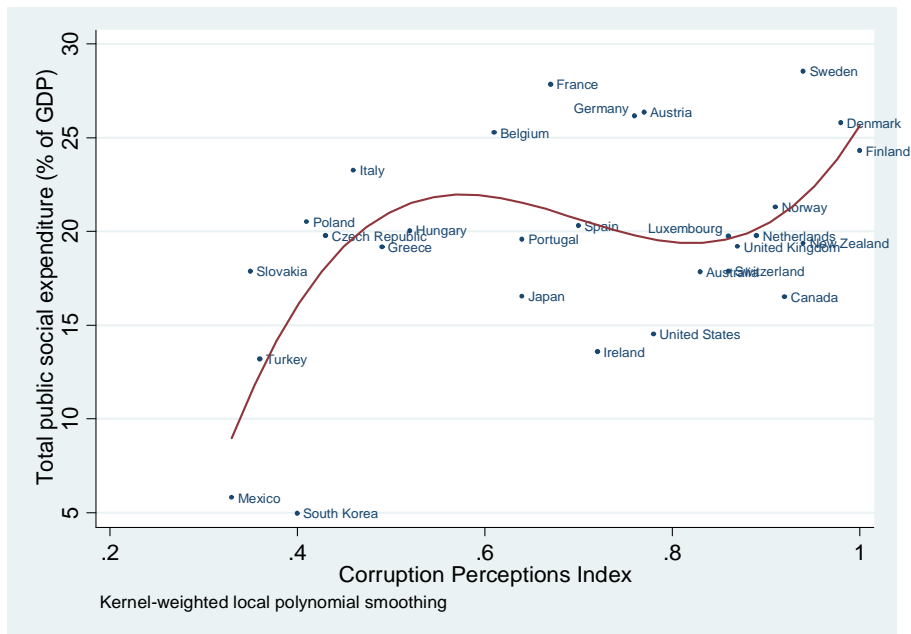

Figure 2: Corruption Perception Index and public social expenditure in 2000. Source: Tranparency International and OECD social expenditure DataBase.

We then rationalize the (non monotonous) relationship between trust and the scope of the welfare state. We begin by providing a simple political economy model which analyzes the relation between trust and the scope of the welfare state. The model comprises civic (or trustworthy) and uncivic individuals. Civic individuals cheat neither on taxes nor on social benefits and they behave properly when they serve as officials. Uncivic individuals cheat on taxes and on social benefits if this is in their own interest. They do not behave properly when they serve as officials. The model predicts that everybody wants more social benefits when he expects to be surrounded by more civic individuals, because there is less fraud on taxes and benefits and officials are more efficient. However, uncivic individuals want more redistribution than civic individuals because they escape from taxes, but benefit from public transfers. This implies that a rise in the share of civic individuals has two opposite effects on the demand for the welfare state. On one hand, everybody wants more redistribution, expecting to be surrounded by more civic individuals. On the other hand, the demand for redistribution is reduced because there are fewer uncivic individuals asking for a high level of transfers. These two opposite effects induce a non monotonic relationship between the share of trustworthy individuals and the size of the welfare state. It is possible to get a large, but inefficient, welfare state in a society populated by numerous uncivic individuals who cheat on social benefits, escape from taxes and do not behave properly when they serve as officials. Conversely, the welfare state can be both large and efficient only if the share of civic individuals is sufficiently great. The model thus explains why big welfare states can be supported in both low and high trust countries, but with very contrasting perceptions of their degree of transparency as shown in figures 1 and 2.

We test the predictions of the model using individual international social surveys. The most immediate prediction is that the support for the welfare state is related to generalized trust and to trust toward government institutions. Using the European Social Survey (ESS) and the World Values Survey (WVS), we find that individuals who think that they are surrounded by more civic people exhibit stronger support for the welfare state. Trust in the parliament, in politicians, in the legal system and in the efficiency and the equity of the tax authorities is also positively associated with support for the welfare state. We find that uncivic individuals, who declare that it can be justifiable to claim

government benefits to which one is not entitled, to avoid a fare on public transport, or to throw away litter in a public place, support more generous social programs than civic individuals who declare that such behaviors are never justifiable. Finally, we show that the perceived quality of services provided by the welfare state is higher in countries where there is more generalized trust and more confidence in government institutions. Strikingly, it turns out that increases in social expenditure do not improve the perceived quality of public education, public health, public pensions and unemployment insurance if they are not accompanied by improvements in the trustworthiness of citizens and of governments.

In order to highlight the thrust of our explanation of the scope of the welfare state, we compare the effect of trustworthiness with the alternative traditional explanations of the support for the welfare state. The economic literature has so far put forward three main factors for explaining the cross country heterogeneity in the generosity of welfare states. The first one is based on traditional economic determinants. In a seminal paper, Alesina et al. (2001) show that economic characteristics such as the distribution and variance of income fall short of explaining the heterogeneity in the demand for redistribution. We elaborate further by showing that trust has a much more substantial influence on the demand for redistribution than basic economic variables such as individual income. The second explanation proposed by the literature points in the direction of beliefs different from trust. In particular, Alesina et al. (2001), Alesina and Angeletos (2008), Alesina and Sapienza (2010), Luttens and Valfort (2011) have shown that the demand for redistribution is linked to beliefs in fairness, beliefs in merit and effort (as opposed to luck) to explain individual success, or parochial altruism. We show that none of those beliefs has an effect as substantial as trust on the individual demand for redistribution. A third trend of this literature explains systematic differences in the demand for redistribution by cultural preferences. In particular, Alesina and Fuchs-Schündeln (2007) find that, after German reunification, East Germans are more in favor of redistribution than West Germans, even after controlling for economic incentives. Luttmer and Singhal (2010) document the effect of culture on the demand for income redistribution by estimating the preferences of immigrants in European countries. Using the ESS database, they show that the preferences of immigrants correlate strongly with the demand for redistribution in their country of origin. We show in this paper that it is mainly the inherited cultural

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beliefs that matter for first generation immigrants. However, support for the welfare state of second generation immigrants is no more correlated to the support for the welfare state in their country of origin, but is strongly correlated with generalized trust and the trust in institutions prevailing in their residence country. This result, which is consistent with those of Alesina and Fuchs-Schündeln (2007) and Luttmer and Singal (2010),[3] suggests that the support for the welfare state is driven by beliefs about the behavior of compatriots that progressively adapt to the local context and by inherited cultural preferences. After about one generation, beliefs of immigrants about the behavior of compatriots and about the transparency of the welfare state are in line with those of natives of their country of residency.

Our contribution is related to at least three literatures. The first literature is that of political scientists who stress the existence of a positive and monotonous relationship between trust and the welfare state. For instance, Hetherington (1998, 2004) argues that declining political trust has played the central role in the demise of progressive public policy in the United States over the last several decades. Uslaner and Rothstein (2005) and Rothstein et al. (2010) argue that the scope of the welfare state in OECD countries is limited by trust toward "other people" and toward government institutions. According to these authors, the survival of large welfare states in the Scandinavian countries is explained by high social trust and high quality of government. The narrative of this idea can be traced back to at least Adam Smith, who stressed in The Wealth of Nations, "in those corrupted governments where there is at least a general suspicion of much unnecessary expense, and great misapplication of the public revenue, the laws which guard it are little respected." (Smith, 1976, p. 898).[4] This explanation fits well with the specific group of very high-trust countries. But it cannot account for the existence of fairly large welfare states in the OECD countries characterized by relatively low levels of trust, like France

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[3]It is also consistent with those of Nannestad et al. (2008), Dinesen and Hooghe (2010) and Dinesen (2011) who find that both parental transmission of trust as well as perceptions of institutional fairness matter for the level of trust of young immigrants, but the impact of perceptions of institutional fairness is stronger.

[4]In the same book Smith noticed that taxes were easy to levy in Hamburg because in places "where the people have entire confidence in their magistrates, are convinced of the necessity of the tax for the support of the state, and believe that it will be faithfully applied to that purpose, such conscientious and voluntary payment may sometimes be expected" (Smith, 1976, p. 850). See Evinsky (2005) for a thorough discussion.

or Italy. Our paper is distinguished from this research in political science in at least two central ways. First, we document and provide a rationale for the existence of a non monotonous relationship between trust and the welfare state. Besides, we explain why large welfare states might be supported in both high-trust and low-trust countries, but are transparent and efficient in the former group of countries only. Second, we propose a theory rationalizing the relationship between trust and the welfare state, and provide microevidence to identify the specific relationship running from trust to the demand for the welfare state.

The second literature is the economics of redistribution. The seminal economic explanations of the support for redistribution are based on the distribution of incomes before taxes and transfers (Alesina and Glaeser, 2004) and on the beliefs on income mobility (Piketty, 1995, Benabou and Ok, 2001, Alesina and La Ferrara, 2005). More recent behavioral explanations have put to the fore the role of fairness (Corneo and Gruner, 2002, Alesina and Angeletos, 2005, Luttens and Valfort, 2011) and reciprocal altruism (Fong, 2001, Fong et al. 2006,), of inherited preference ingrained in past historical experience (Corneo and Gruner, 2002, Alesina and Fuchs-Schündeln, 2007, Luttmer and Singhal, 2010, Alesina and Giuliano, 2010), of ethnic fragmentation and group loyalty (Luttmer 2001, Alesina and Glaeser, 2004) and of the desire to act in accordance with public values (Corneo and Gruner, 2002). A third literature looks at the role of political institutions and of the electoral system (Alesina et al., 2001, Persson and Tabellini, 2002) in shaping the welfare states. Our paper contributes to this literature by identifying trust as a new determinant. Besides, we show that trust plays a substantial role in explaining the demand for redistribution once we control for the main factors identified in the economic literature so far.

The paper is organized as follows. Section 2 documents the cross country correlation between various measures of trust and the generosity of the welfare states. Section 3 presents the model to rationalize this relationship through a mechanism running from trustworthiness to the support for the welfare state. Section 4 tests the predictions of the model on individual data. Section 5 compares the role of trustworthiness with alternative beliefs and cultural preferences. Section 6 concludes.

2   Basic Facts

This section documents the non monotonous relationship between trust and the size of the welfare state. Figures 1 and 2 in the introduction use the country average level of trust in others and in institutions. In this section, we first check the robustness of these relationships by using the conditional average level of trust, controlling for individual characteristics. We regress the various measures of trust on gender, age, education, income, occupation, family situation, religiosity and political orientation[5], and country fixed effects taking Norway as the reference country. Table 13 (reported in Appendix) shows the probit estimates for generalized level of trust, measured by this question from the World Values Survey: "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?". The answer is equal to 1 for "Most people can be trusted", and 0 for "Can't be too careful". Estimated coefficients show that the country fixed effects are the main factors driving the variation in trust across individuals living in different countries.[6] The country fixed effects that measure the conditional average level of generalized trust are thus almost perfectly correlated with the simple country average measure (country fixed effects explain 87 percent of the cross country variance of trust). We also look at the conditional average level of confidence in institutions as a measure for the quality of institutions. From the World Values Survey, we use the questions on the level of confidence in "*The Parliament*", "*The Civil services*" and "*The Justice system*". For each question, the answer ranges from 1 for "*A great deal* ", 2 for "*quite a lot* ", 3 for "*not very much* " to 4 for "*none at all* ". We reorder the answers so that a higher scores denote a higher level of confidence in the institution. We measure the index *confidence in institutions* as the first principal component of the three questions. Table 14 (in Appendix) shows the OLS estimates of the index *confidence in institutions* on individual characteristics and country fixed effects. The country fixed

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[5]Education is the highest educational level attained, classified in 8 levels. Income is defined on a scale that comprises 10 levels. Occupation comprises the following categories: employed, unemployed, in education, retired and others. Family situation can be married, separated/divorced, widowed, never married. Religiosity provides information about the frequency of attendance at religious service, going from never to more than once a week, classified in 8 levels of frequency. Political orientation corresponds to the answer to the following question: "In political matters, people talk of the left and the right. How would you place your views on this scale (going from one for left to 10 for right), generally speaking?".

[6]Portugal is missing because of the lack of information on income and education in the WVS for this country.

effects account once again for most of the cross country heterogeneity in the confidence in institutions (68 percent).

Figures 3 and 4 show the relationship between those conditional average measures of trust in others and trust in institutions, and the share of social spending in GDP. We find the same non monotonous relationship pattern as the one found in Figures 1 and 2 with the simple country average level of trust.

We then document that this non monotonous relationship holds for alternative measures of the generosity of the welfare state. We first use the *overall generosity score* computed by Scruggs (2004). The generosity index summarizes the generosity of three social insurance programs: sickness, unemployment and pension. Calculations are based on an average productive worker. For each program and each country, a score is assigned following the program's characteristics (replacement rate, qualification conditions, duration, etc.) and coverage. The final index is computed as the sum of the three scores and reflects increasing generosity of the system. Figures 5 and 6 represent the relationship between the overall generosity score in 2000 and the conditional average measures of trust in others and confidence in institutions. According to figure 5, countries with relatively low levels of trust, like Belgium and France, as well as countries with high levels of trust, like Sweden, Denmark, Finland and Norway, have generous welfare states. Countries with intermediate levels of trust have less generous welfare states. Figure 6 shows the same relationship pattern between the conditional level of confidence in institutions and the Scruggs index of welfare generosity. The size of the welfare state is minimum for countries with intermediate levels of confidence in institutions, like the United States and the United Kingdom.

Figures 7 to 11 show the association between tax wedges for single individuals or couples and the conditional average level of trust in others and in institutions. These figures confirm the non monotonous relation between the scope of the welfare state and the various indicators of trust.

These basic facts raise two main issues. First, how can we explain the non monotonous relationship between the size of the welfare state and the level of trust? Second, how can large welfare states survive despite the heterogeneity in their degree of transparency and efficiency?
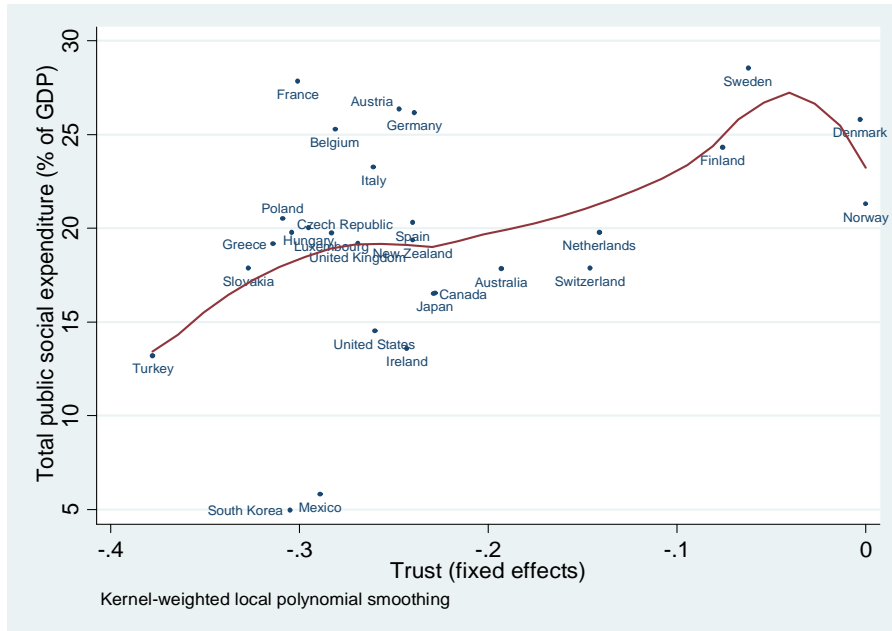
Figure 3: Trust and public social expenditure in 2000. Source: World Values Survey (authors' calculation) and OECD social expenditure DataBase.

The next sections rationalize both theoretically and empirically these findings by identifying the relationship running from trust to the welfare state that transits through the demand for redistribution as a function of trust and civicness.

3 The model

This section presents a simple model which highlights the relations between generalized trust, trust toward government institutions and the scope of the welfare state.

3.1 The setup

There is a continuum of individuals of measure one and a government which levies taxes and provides social benefits.

Every individual is either civic or uncivic. The share of civic individuals is denoted by α. Civic individuals pay taxes and only claim benefits to which they are entilted. Uncivic individuals are purely opportunistic: they cheat on taxes and benefits when this is worthwhile. All individuals have the same preferences over consumption, which are
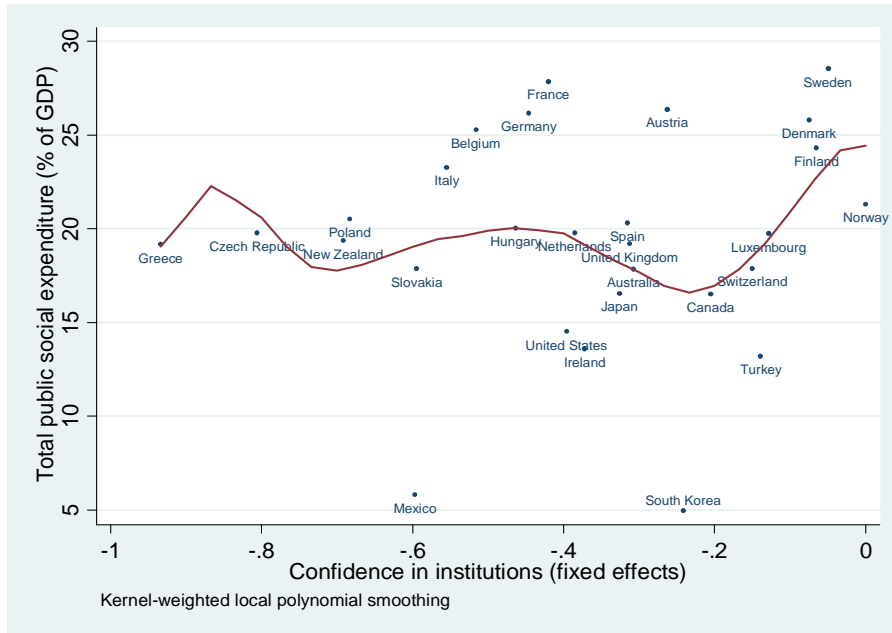
Figure 4: Confidence in institutions and public social expenditure in 2000. Source: World Values Survey (authors' calculation) and OECD social expenditure DataBase.
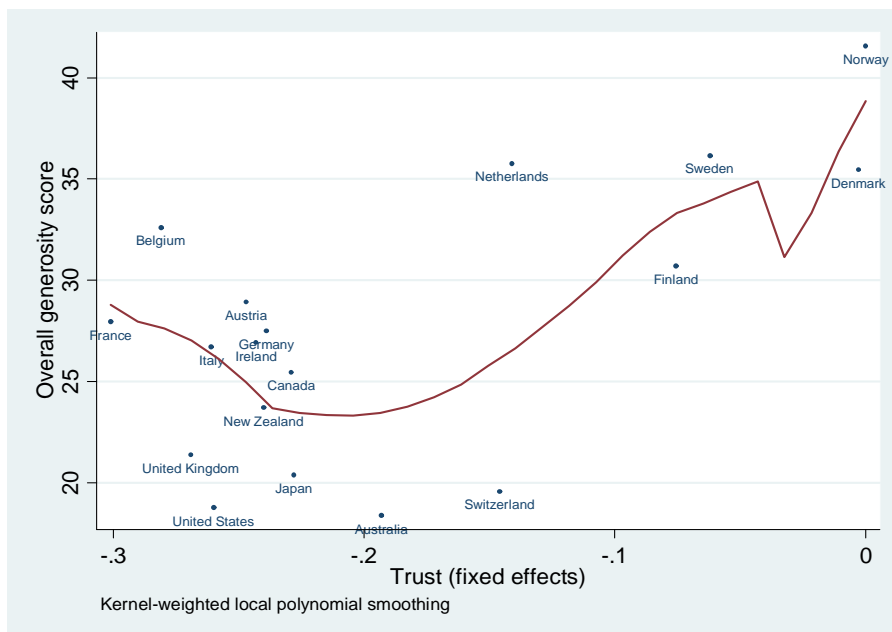
Figure 5: Trust and overall generosity score in 2000. Source: World Values Survey (authors' calculation) and Welfare State Entitlements Dataset.
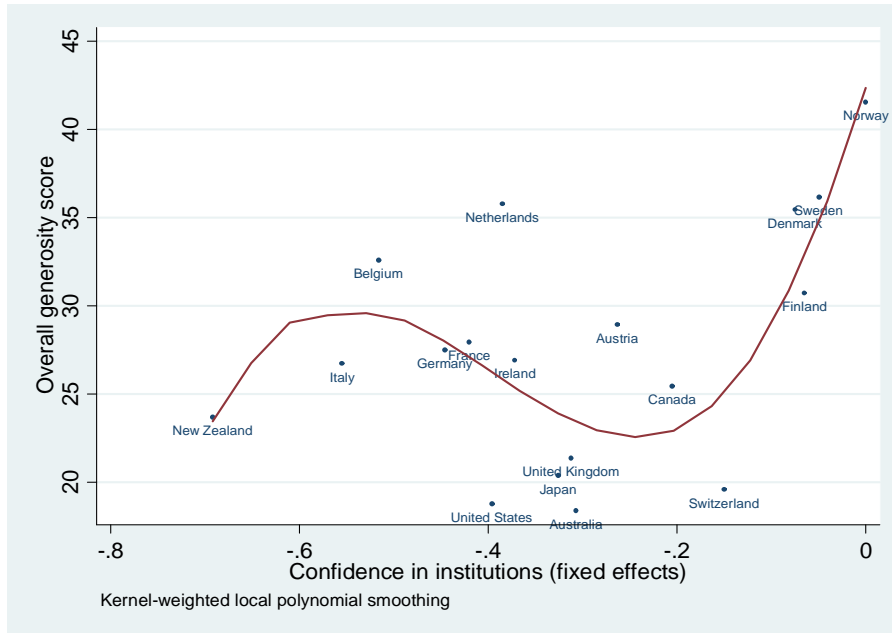
Figure 6: Confidence in institutions and overall generosity score in 2000. Source: World Values Survey (authors' calculation) and Welfare State Entitlements Dataset.
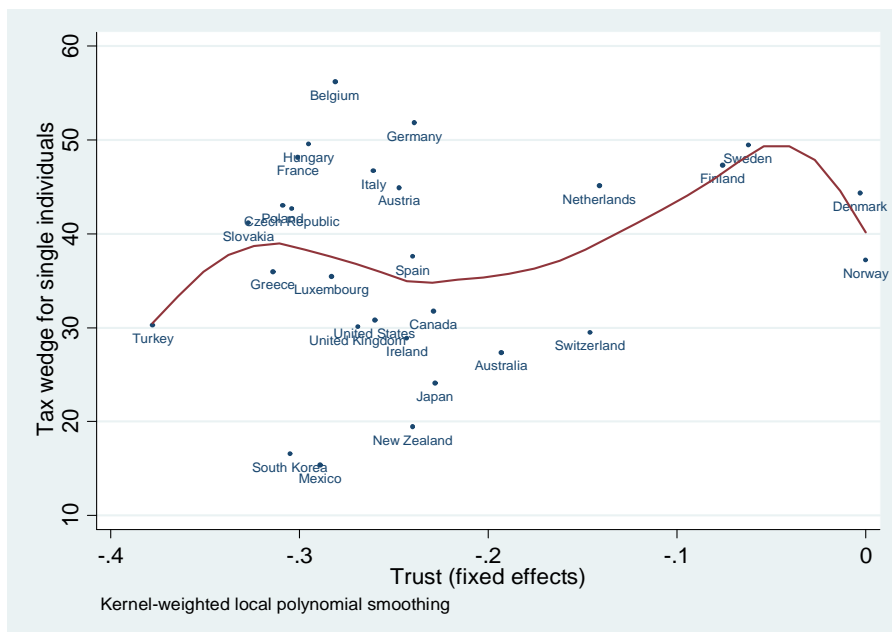
Figure 7: Trust and average tax wedge for single individuals in 2000. Source: World Values Survey (authors' calculation) and OECD Taxing Wages Statistics.
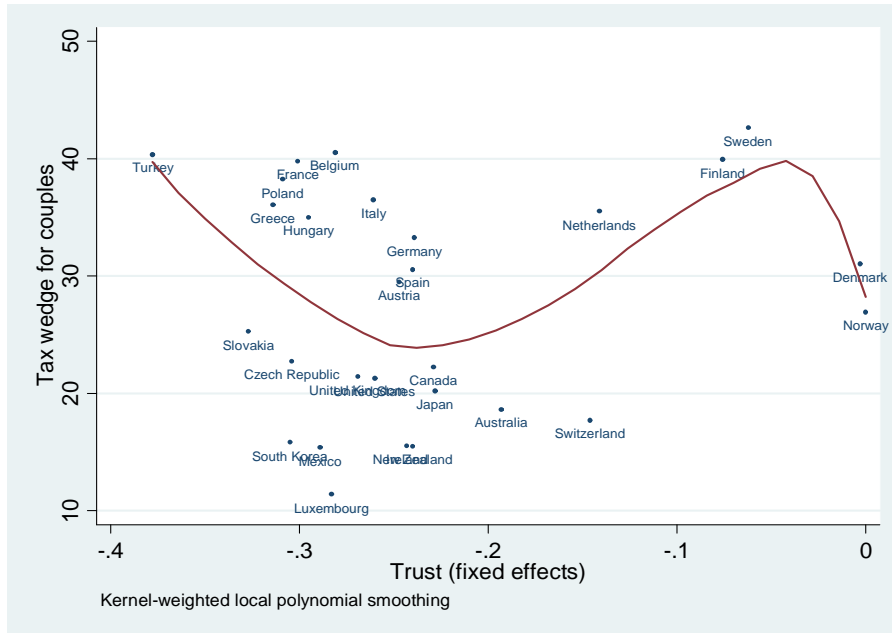
Figure 8: Trust and average tax wedge for couples in 2000. Source: World Values Survey (authors' calculation) and OECD Taxing Wages Statistics.

Figure 9: Confidence in institutions and average tax wedge for couples in 2000. Source: World Values Survey (authors' calculation) and OECD Taxing Wages Statistics.

Figure 10: Confidence in institutions and average tax wedge for couples in 2000. Source: World Values Survey (authors' calculation) and OECD Taxing Wages Statistics.

Figure 11: Confidence in institutions and average tax wedge for couples in 2000. Source: World Values Survey (authors calculation) and OECD Taxing Wages Statistics.
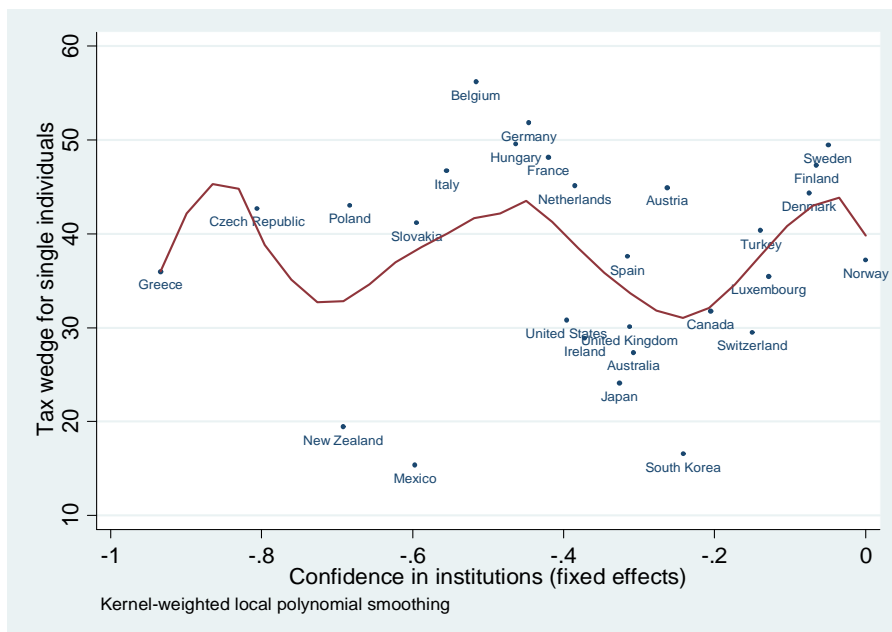
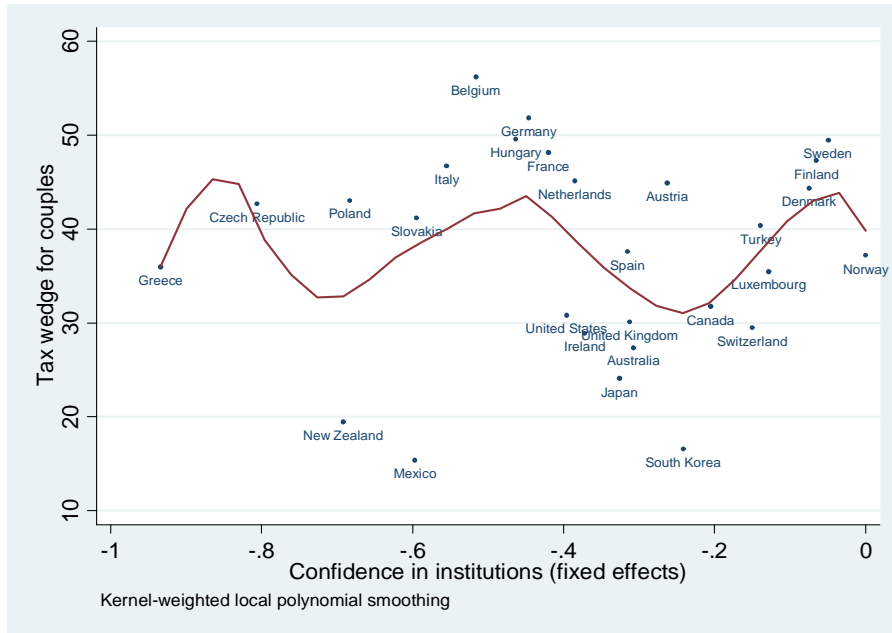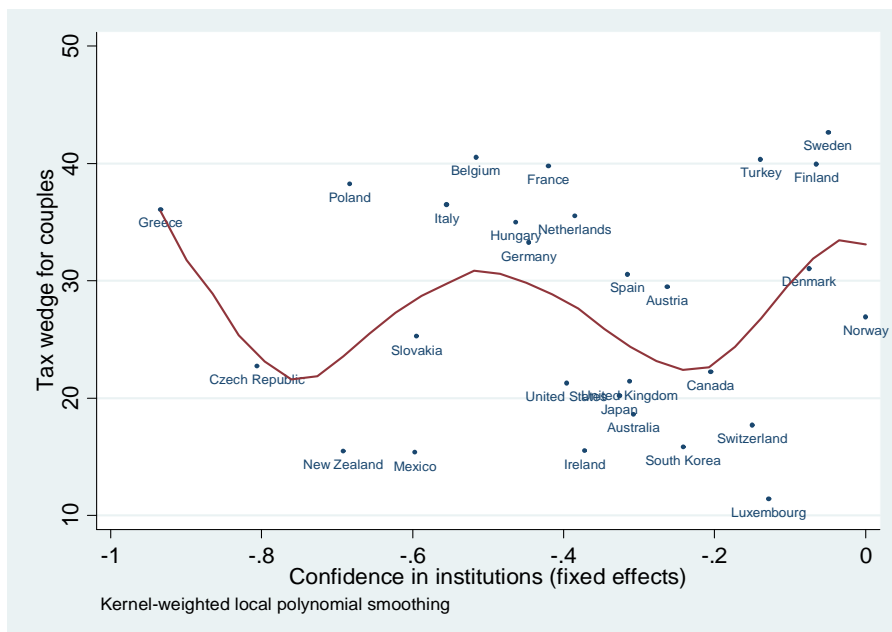represented, for the sake of simplicity, by the logarithmic utility function $\ln(c)$, where c stands for consumption.

Every individual produces $y > 0$ units of the consumption good with probability $\pi \in (0, 1)$ and zero with probability $1 - \pi$. Productive individuals, who produce $y > 0$, must pay a tax, denoted by t, to finance benefits provided to those who produce nothing. Productive individuals can hide their production with probability p. Civic individuals always declare their true level of production. Thus, they pay the required tax if they are productive and they claim benefits only if they are unproductive. Uncivic individuals able to hide their production never pay taxes and always claim benefits whatever their level of production.

Taxes are levied by officials. Every individual is working during the day and is an official at night. To represent the fact that uncivic officials do not do their duty, we assume that only the share $\alpha \in [0, 1]$ of taxes is transformed into social benefits. The complementary share $1 - \alpha$ is a deadweight loss.[7] This assumption allows us to account in a simple way for the fact that the share of uncivic officials is more likely to be higher when there are more uncivic individuals in the society as a whole. And, accordingly, that governments are less efficient in countries where there are more uncivic individuals.

Let us describe the timing of events. First, individuals are born either civic or uncivic. Second, individuals vote on benefits and taxes. Third, a share π of individuals produce y and a share $1 - \pi$ produce nothing. Then, benefits and taxes are paid.

3.2 The support for the welfare state

Let us first look at the support for the welfare state of civic and uncivic individuals. All individuals choose the tax and benefits that maximize their expected utility subject to the budget constraint of the government. The tax receipt of the government is made of the tax paid by the $\pi\alpha$ productive civic individuals and of the $p\pi(1 - \alpha)$ productive uncivic individuals whose production cannot be hidden. Since taxes managed by uncivic

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[7]Alternatively, it could be assumed that officials capture taxes. This leads to the same qualitative results (see the discussion below). It could also be assumed that the probability to hide production decreases with the share of civic officials to the extent that civic officials are more conscientious. This does not change the result that the relation between trust and the scope of the welfare state is not monotonous. Moreover, this assumption is questionable to the extent that uncivic officials who capture taxes may be as motivated as (and even more motivated than) civic officials to levy taxes.

individuals are lost, the total amount of resources available to provide social benefits is equal to $\alpha \pi t \left[\alpha + p(1 - \alpha) \right]$. Benefits are provided to the $(1 - \pi)$ unproductive individuals and to the $\pi(1 - p)(1 - \alpha)$ productive uncivic individuals who can claim benefits because their production can be hidden. Accordingly, the budget constraint is

$$\alpha \pi t \left[\alpha + p(1 - \alpha) \right] = \left[(1 - \pi) + \pi(1 - p)(1 - \alpha) \right] b. \tag{1}$$

- Civic individuals expect to get the income $y - t$ if they are productive and to get benefits b otherwise. They choose taxes and benefits which maximize

$$\pi \ln(y - t) + (1 - \pi) \ln(b)$$

  subject to the budget constraint (1). The solution satisfies the budget constraint and the first order condition

$$\frac{b}{y - t} = \frac{\alpha \left[\alpha + p(1 - \alpha) \right]}{1 + \frac{\pi}{(1 - \pi)} (1 - p)(1 - \alpha)} \equiv \rho_{\text{civic}} \tag{2}$$

  This equation shows that the demand for social insurance of civic individuals, measured by the ratio of benefits of unproductive individuals over the net income of productive individuals, increases with the share of civic individuals. At the limit, there is full insurance, i.e. $b = y - t$, when everyone is civic ($\alpha = 1$). Otherwise, there is partial insurance. When $\alpha = 0$, there is no social insurance.

- Uncivic individuals choose taxes and benefits which maximize

$$\pi \left[p \ln(y - t) + (1 - p) \ln(y + b) \right] + (1 - \pi) \ln(b)$$

  subject to the budget constraint (1). The solution satisfies the budget constraint and

$$\frac{b}{y - t} = \rho_{\text{civic}} + \frac{b}{y + b} \frac{1 - p}{p} \frac{\alpha \left[\alpha + p(1 - \alpha) \right]}{1 - \pi \left[\alpha + p(1 - \alpha) \right]}. \tag{3}$$

It turns out that uncivic individuals want more redistribution than civic individuals because the ratio $b/(y - t)$ defined by equation (3) is larger than that defined by equation (2). Uncivic individuals want more redistribution for two reasons. First, they benefit from public transfers more frequently than civic individuals since they claim benefits when their

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production can be hidden. Second, they do not bear all the burden of taxation since they escape from taxes when this is possible.[8]

It also appears that the support for the welfare state of uncivic individuals increases when the share of civic individuals is larger.

At this stage, the predictions of the model are that uncivic individuals want *more* redistribution than civic individuals and that all individuals want more redistribution when they expect to be surrounded by more civic individuals and by a more efficient welfare state.

3.3   The outcome of the vote

Individuals vote on the level of taxes and benefits compatible with the budget constraint. Since preferences are single peaked, we can assume that the outcome of the vote is defined by the median voter. Thus, taxes are determined by uncivic individuals if the share of civic individuals is smaller than $1/2$ and by civic individuals otherwise. The outcome is represented on figure 12. It shows that the relation between the share of civic individuals and the level of social insurance is not monotonic because the support for the welfare state of uncivic individuals is greater than that of civic individuals. It is possible to have large welfare states supported by a majority of uncivic individuals who cheat on taxes and benefits. This can explain why countries with a large share of uncivic individuals and weakly efficient government, like Italy, France and Belgium, can have welfare states as large as civic countries like the Scandinavian countries.

Moreover, when the median voter is uncivic, the size of the welfare state is inefficiently high to the extent that maximization of any convex combination of the utilities of civic and uncivic individuals yields a lower tax level than that decided by the median voter.

4   Empirical results

In this section, we seek to establish the main predictions of the model at the individual level. First, there is a positive relation between generalized trust and the perceived civicness of the fellow citizens on one hand, and the support for the welfare state on

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[8]Uncivic individuals would have a third reason to prefer higher taxes and benefits than civic individuals if uncivic individuals captured taxes when they are officials.
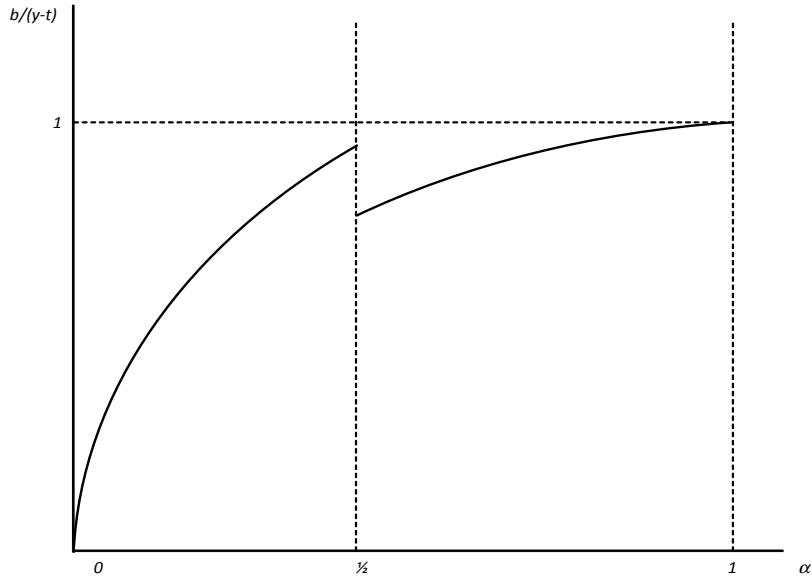
Figure 12: The relation between the share of civic individuals and the scope of the welfare state.

the other hand. Second, trust in government institutions is positively associated to the support for the welfare state. Third, less civic individuals want more redistribution. We seek to identify through these three predictions the causal impact of trust on the welfare state working through popular demand. Finally, we test the fourth prediction according to which welfare states are less efficient in countries where there is low confidence in government institutions.

4.1 Data

Most of the analysis is based on the fourth round of the European Social Survey which provides a specific module on attitudes towards the welfare state and was conducted in 2008 and 2009. We use 24 countries[9] for which the variables we are interested in are available. This survey provides information about a large set of socioeconomic characteristics and beliefs. Our measure of the support for the welfare state relies on the answer to the following question: *"Many social benefits and services are paid for by taxes. If the*

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[9]Belgium, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Israel, Latvia, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom.

government had to choose between increasing taxes and spending more on social benefits and services, or decreasing taxes and spending less on social benefits and services, which should they do?". Answers range from 0, "*Government should decrease taxes a lot and spend much less on social benefits and services*", to 10, "*Government should increase taxes a lot and spend much more on social benefits and services*". This scale clearly reflects an increasing support for the welfare state. Its formulation has the advantage of stressing both the costs and the benefits of the welfare state. This question is also much more explicit regarding the demand for the welfare state than the ones related to the role of government in reducing inequalities, traditionally used in the literature (see Alesina and Giuliano, 2010). It should also be noticed that this question implicitly makes reference to the government of the country where the interview takes place. It is preceded by a series of questions about social benefits and tax authorities which make explicit reference to the country where people are interviewed.

4.2 Generalized trust and perceived behavior of compatriots

In table 1, we investigate the relationship between trust and the support for the welfare state. The dependent variable is the ESS question on the support for the welfare state. In columns 1 and 2, the explanatory variable of interest is the level of trust measured by the question: "*Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?*". The variable ranges from 0 for "*You can't be too careful*" to 10 for "*Most people can be trusted*". We include controls for age, gender, education, income of the household, family status, employment status, political orientation and religiosity. Column 1 shows the results of the estimation without country fixed effects while country fixed effects are included in column 2. The coefficient associated with trust is positive and significant at the 1% level in both columns. The size of the coefficient of trust is economically significant. In column 2, the fact of claiming that "*Most people can be trusted*" rather than "*You can't be too careful*" is associated with an increase in the support for the welfare state which is five times larger than the demand for redistribution of the unemployed relative to employees. The coefficient associated with political orientation shows that right wing individuals express less support for the welfare state. The coefficients of trust and of political orientation have the same magnitude. This

means that a one point move on the 0-10 distrust-trust scale is associated with the same change in the support for the welfare state as a one point move on the 0-10 left-right scale. It is worth noting that the coefficient associated with the income of the household is negative, but not significantly different from zero, suggesting that the support for the welfare state is not significantly influenced by income. Education is positively correlated with the support for the welfare state, but the coefficient associated with education is five times smaller than the coefficient associated with trust.

The ESS also provides a large set of detailed questions about the trustworthiness and the perceived civicness of compatriots. In columns 3 and 4 of table 1 we use the general question on fairness of others: "*Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?*". The variable is equal to 0 if the respondent answered "*Most people would try to take advantage of me*" and 10 if it is answered "*Most people would try to be fair*". Columns 3 and 4 of table 1 show that we get similar results as before with this measure of trust. In columns 5 and 6 of table 1, we also look at a broad question on civicness: "*Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves?*". The variable is equal to 0 if the respondent answered "*People mostly look out for themselves*" and 10 if it is answered "*People mostly try to be helpful*". Table 1 shows that the perceived civicness of compatriots is positively associated with the demand for redistribution. The coefficient is statistically significant at 1%.

We then turn to more specific questions on the behavior of compatriots toward social benefits. The first question reads : "*Many people manage to obtain benefits and services to which they are not entitled*". The variable is equal to 1 if the respondent agrees strongly, 2 if he agrees, 3 if he neither agrees nor disagrees, 4 if he disagrees and 5 if he disagrees strongly. We include the same individual controls as before. Columns 1 and 2 of table 2 shows the results without country fixed effect and with country fixed effect respectively. The belief in the way compatriots (mis)use social benefits is steadily associated with the individual demand for redistribution. The effect is substantial: the fact of agreeing strongly rather that disagreeing strongly with the claim "*Many people manage to obtain benefits and services to which they are not entitled*" is associated with a reduction in the demand for redistribution which is twice as large as the gap between the demand for

redistribution of unemployed workers and employees (column 2). The second question reads "*Most unemployed people do not really try to find a job.*" The variable takes values ranging from 1 if the respondent agrees strongly to 5 if he disagrees strongly. Columns 3 and 4 of Table 2 show that the demand for redistribution is statistically significant and positively associated with the fact of believing that unemployed workers make efforts to find a job. The third question reads "*Employees often pretend they are sick in order to stay at home*". The answer still ranges from 1 for strongly agree to 5 for strongly disagree. Columns 5 and 6 of Table 2 show the same highly significant relation between the beliefs in the efforts of employees and the demand for redistribution.

All these results show that there is a strong positive relation between perceived civicness of compatriots and the demand for redistribution. The support for the welfare state turns out to be particularly sensitive to beliefs in free riding on public transfers of compatriots.

4.3 Trust in government institutions

The model predicts that the second driving force of the demand for a generous welfare state is not just the level of trust in compatriots, but also the level of trust in government institutions. We exploit two sets of questions related to those beliefs.

First, respondents are asked "*how much do you personally trust each of the institutions I read out. 0 means you do not trust an institution at all, and 10 means you have complete trust*". We look at trust toward the parliament, politicians, and the legal system. Table 3 shows that there is a strong positive relation between trust toward these institutions and the demand for redistribution. The size of the coefficient is economically very significant. The order of magnitude is the same as for generalized trust.

Second, there are two specific questions about tax authorities. One question is about the efficiency of tax authorities: "*How efficient do you think the tax authorities are at things like handling queries on time, avoiding mistakes and preventing fraud?*". The answer ranges from 0 if the respondent considers that tax authorities are extremely inefficient in doing their job to 10 if tax authorities are considered as extremely efficient. The other question is about the equity of tax authorities: "*Tell me whether you think the tax authorities in your country give special advantages to certain people or deal with*

everyone equally?". The answer ranges from 0 if the respondent considers that tax authorities give special advantages to certain people to 10 if he believes that tax authorities deal with everyone equally. Table 4 shows that both beliefs in the efficiency and beliefs in the equity of tax authorities are strongly positively associated with the demand for redistribution.

4.4 Civic spirit

Our model predicts that uncivic individuals want more redistribution than civic individuals because they escape from taxes and they abuse social benefits. The European Social Survey does not comprise the relevant information needed to analyze the relation between civic spirit and the demand for redistribution. Accordingly, we use the World Values Survey, which allows us to measure civicness using the answer to the following question: *"Please tell me for each of the following statements whether you think it can always be justified, never be justified, or something in between, using this card."* We use answers to following statements: *"Claiming government benefits to which you are not entitled"; "Avoiding a fare on public transport"; "Cheating on taxes when you have a chance"; "Someone accepting a bribe in the course of their duties"; "Throwing away litter in a public place"; "Buying stolen goods"*. The answers range from 1 for *"never justifiable"* to 10 for *"always justifiable"*. As shown by figure 13 in the appendix, a very large share of respondents answer *"never justifiable"* to those questions. Other answers are chosen by small and equally distributed shares of respondents. We thus distinguish two main types of individuals: those who claim that the behaviors described in the questions are *"never justifiable"* and those who say that they can be justifiable. Hence, for each question, we create a variable measuring civic spirit which is equal to 1 if the answer is *"never justifiable "* and 0 for all other answers. The WVS provides information about the support for the welfare state with a question close to that of the ESS: *"I'd like you to tell me your views on various issues. How would you place your views on this scale? 1 means you agree completely with the statement on the left; 10 means you agree completely with the statement on the right; and if your views fall somewhere in between, you can choose any number in between. Incomes should be made more equal* versus *We need larger income differences as incentives"*. We reverse the scale of the answers so that a

higher score indicates a higher support for the welfare state. We check that the WVS yields the same positive relation between trust and the demand for redistribution as that obtained from the ESS. In the WVS, trust is measured with a question similar to that of the ESS:"*Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?*". The answer can take either the value 1 for "*Most people can be trusted*" or the value 0 for "*Can't be too careful*".[10] Column 1 of table 5 shows a positive and statistically significant relationship between generalized trust and the support for the welfare state as measured by the question of the WVS. The relation between civic spirit and the support for the welfare state is displayed in columns 2 to 7 of table 5. The explanatory variable of interest is civic spirit. All specifications include country fixed effects and time fixed effects for the year of interview. For all statements, the estimated coefficient of civic spirit is negative and statistically significant. This means that more civic individuals want less redistribution, as predicted by the model. In terms of magnitude, the estimated effect of being civic on the support for the welfare state is as large (or even larger in some specifications) as the effect of gender or as the effect of being unemployed instead of employed.

4.5   Efficiency of welfare states

The model predicts that welfare states are less efficient in countries where there is less generalized trust, less trust toward government institutions and less transparency of the government. We measure the efficiency of the welfare state using information about the perceived quality of services provided by the welfare state. We use the following four questions of the ESS: 1) "*What do you think overall about the standard of living of pensioners?*"; 2) "*What do you think overall about the standard of living of unemployed?*"; 3)"*What you think overall about the state of education ?*"; 4)"*What you think overall about the state of health services ?*". For all these questions, the answer ranges from 0 if the respondent chooses "*extremely bad*" to 10 if the respondent chooses "*extremely good*".

In table 6, we regress the answer to each of these questions on the average country levels of generalized trust, of trust toward government institutions and on the transparency of

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[10]In the ESS, the respondents choose an answer on a scale going from 0 for "*You can't be too careful*" to 10 for"*Most people can be trusted*".

the government measured by the corruption perception index. Other explanatory variables include the share of social expenditure in GDP and individual characteristics (not reported here).

As shown by estimated coefficients presented in table 6, generalized trust, trust in the legal system, trust in the fairness of tax authorities and the transparency of the government are positively and significantly correlated with the perceived quality of services provided by the welfare state. By contrast, the share of total social expenditure in GDP is not correlated with the perceived quality of services provided by welfare states. These results mean that welfare states are more efficient in countries with more trustworthy citizens and more trustworthy government. More strikingly, they also indicate that increases in public social expenditure do not improve the perceived quality of public education, public health, public pensions and unemployment insurance if they are not accompanied by improvements in trust or in the quality of government institutions.

5   Robustness checks

The previous section has shown that the support for the welfare state is strongly associated with generalized trust and trust toward government institutions. We have shown that these beliefs are substantial determinants of the support for the welfare state. We now investigate the robustness of this analysis to alternative explanations.

5.1   Culture or trust?

First, we explore whether the support for the welfare state is shaped by culture or by the actual institutional and social environment. Using the ESS database, Luttmer and Singhal (2010) show that the demand of immigrants for redistribution is correlated with the demand for distribution in their country of origin. Demand for redistribution would thus be ingrained in cultural preferences. To sort out the respective role of the current context, including the behavior of compatriots and the efficiency of institutions, and culture, we focus on the support for the welfare state of immigrants in the ESS. The ESS comprises information about the country of residence, the country of birth, and the country of birth of the mother and of the father. This information allows us to identify first

generation and second generation immigrants. We observe individuals from 28 different countries. They live in 24 countries.

We regress the support of immigrants for the welfare state on the average level of beliefs (trust toward others and trust toward institutions) in their country of residence and on the average demand for redistribution in their country of origin.[11] These two variables allow us to evaluate the relative weight of the beliefs in their country of origin and of the beliefs in their country of residence for explaining the individual demand for redistribution. The influence of the average demand for redistribution in their country of origin reflects the influence of culture. The influence of beliefs in their country of residence reflects the influence of the actual environment where immigrants are currently living.

Table 7 shows the results when we focus on the role of generalized trust in the country of residence. We find that for first generation immigrants, the demand for redistribution in the country of origin is correlated with the support for the welfare state in the country of residence. Trust in the country of residence is weakly correlated with the support for the welfare state of immigrants. It is thus mainly the inherited cultural beliefs that matters. Yet when we turn to the demand of second generation immigrants for redistribution, only the local level of trust is statistically significant. This result suggests that the support for the welfare state is driven by beliefs that adapt to the local context and by cultural preferences whose influence disappears for second generation immigrants.

Table 8 reports the estimates when we focus on the local level of trust in institutions. We find similar results as before: the support for the welfare state of first generation immigrants is statistically significantly correlated to the demand for redistribution in their country of origin but not to trust in institutions in their country of residence. However, for second generation immigrants, the correlation with the support for redistribution in the country of origin vanishes and the correlation with trust in institutions in their country of residence becomes significant.

All in all, tables 7 and 8 suggest that individual support for the welfare state is shaped by inherited culture and by the current environment. Moreover, they suggest that the influence of culture disappears after one generation.

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[11]For second generation immigrants, the average demand for redistribution in the country of origin is equal to the average demand for redistribution in the countries of birth of parents. If parents are born in different countries, we take the average of the two countries.

Table 9 confirms this finding by showing that the individual demand for redistribution is in line with the local average demand for redistribution and with the average demand for redistribution in the country of origin for first generation immigrants. The first column of table 9 presents the estimation of a regression where the left-hand side variable is the support for the welfare state of first generation immigrants measured by the answer to the question of the ESS, and where the right hand side comprises individual controls for age, education and employment status. The right hand side also comprises the average support for the welfare state, GDP per capita in 2000 and the share of social expenditure in GDP in 2000 in the country of origin and in the country of residence. It appears that the support for the welfare state of first generation immigrants is correlated with the average support for the welfare state in the country of origin at 10 percent level of confidence and in the country of residence at 1 percent level of confidence. Moreover, the coefficient associated with the country of residence is more than twice as large as the coefficient associated with the country of origin. Column 2 presents the result of the estimation of the same equation for second generation immigrants. Their support for the welfare state is not correlated with the support for the welfare state prevailing in their country of origin, but it is strongly correlated with that of their country of residence. In Columns 3 and 4, we run the same regressions for first and second generation immigrants respectively, where the right hand side comprises, in addition to individual controls and the average country of origin support for the welfare state, country of residence fixed effects instead of average support for welfare state, GDP per capita and the share of social expenditure in GDP in the country of residence. The coefficient associated with the support for the welfare state in the country of origin is not different from zero for either generation. In Columns 5 and 6, the right hand side comprises, in addition to individual controls and the average country of residence support for the welfare state, country of origin fixed effects instead of average support for welfare state, GDP per capita and the share of social expenditure in GDP in the country of origin. The coefficient associated with the average support for the welfare state in the country of residence is strongly significant.

5.2   Trust or alternative beliefs?

Beliefs in the determinants of success and in social mobility have been shown to be strong determinants of the demand for redistribution. In this sub-section, we investigate whether the correlation between trust and the demand for redistribution persists when those alternative beliefs are taken into account.

Alesina and La Ferrara (2005) have shown that beliefs in the determinants of success in life are strongly correlated with the demand for redistribution. More precisely, the belief that success is more likely to be determined by luck than by effort induces a higher demand for redistribution. On the contrary, people who think that they can climb the social ladder by their own hard work are more likely to demand less redistribution by the state. As the ESS does not include a question giving information about such beliefs, we use the WVS, as in table 5 where we investigated the relationship between civicness and the demand for redistribution. In table 10, the dependent variable is the individual support for the welfare state, measured with the answer to the question about the desired degree of income inequality. We measure the feeling that success is determined by hard work rather than by chance using the following question from the WVS: "*Hard work brings success*". Possible answers are on a scale between 1 and 10, 1 means "*In the long run, hard work usually brings a better life*", whereas 10 means "*Hard work does not generally bring success - it's more a matter of luck and connections*". In table 10, the two explanatory variables of interest are trust and the belief in chance as a determinant of success, which we call "luck ". Both specifications include individual control variables. In addition, country fixed effects are included in column 2, but not in column 1. The estimated coefficient of luck is not statistically significant. In contrast, the estimated coefficients of trust are very close to those presented in table 5. This result has two implications: first, it means that the effect of trust on the support for the welfare state is robust when we control for the individual beliefs in the determinants of success; second, it means that the effect of trust is much larger than the effect of luck, which is found to be non-significant.

In table 11, we replicate the same exercise using luck and our different measures of civicness as main explanatory variables. The different waves of the WVS including question about luck and civicness do not perfectly overlap. Hence, the number of observations is strongly reduced in some columns of table 11. The results of these regressions suggest

two comments. First, once civicness is controlled for, luck has no effect on the support for the welfare state. Indeed, luck is found to be non-significant in all specifications. Second, despite the smaller size of the sample, the correlation between civicness and the support for the welfare state still holds when controlling for luck and for three out of our six measures of civicness.

Using British data, Clark and D'Angelo (2010) have shown that climbing the social ladder with respect to parents is also an indicator of social mobility associated with political preferences that reflects weaker support for the welfare state. Such mobility can be observed using the difference between the education of the respondent and the education of his parents. This measure of social mobility is likely to reflect realized and expected increasing (or decreasing) social mobility. In line with this reasoning, if an individual has a higher level of education than his parents, then his demand for redistribution should be weaker. In table 12, we use the ESS and show that the correlation between trust and the support for the welfare state is still statistically significant when mobility is taken into account. In order to capture social mobility, we construct dummy variables for each difference between the level of education of the respondent and that of his parents. This specification takes into account all the possible upward or downward mobilities. We measure education using a 7 item scale which ranges from "not completed primary education "to "second stage of tertiary ". The interaction between respondent's education and parents' education gives a set of 49 dummy variables. We replicate the same exercise using the education of the father and the education of the mother. In table 12, we alternatively include the two sets of social mobility measures in regressions of the support for the welfare state on the different measures of trust used in table 10. All specifications include individual control variables and country fixed effects. The estimated coefficients of the different measures of trust are similar when using either education of the mother or education of the father. Moreover, the estimated coefficients are virtually identical to those estimated in table 10 using country fixed effects. These results mean that the effect of trust on the support for the welfare state persists when controlling for social mobility.

6   Conclusion

This paper shows that the scope of welfare states is associated with trust in a non trivial way. Large and inefficient wefare states survive thanks to the support of a majority of uncivic individuals. The creation of large and efficient welfare states needs a large majority of civic citizens.

These findings suggest that the large welfare states of Continental European countries are inefficiently large. Our results show that increases in public expenditure do not improve the perceived quality of public education, public health, public pensions and unemployment insurance if they are not accompanied by improvements in the reliability of government institutions. However, improvements in the reliability of government institutions and in the trustworthiness of citizens are associated with better quality of services provided by the welfare state. This suggests that the priority of political reforms in Continental European countries should be to improve pro-social behavior of citizens and the transparency of government institutions rather than merely increasing social expenditure.

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Dependent variable: support for the welfare state

	(1)	(2)	(3)	(4)	(5)	(6)
Most people can be trusted	0.111***	0.0708***				
	(0.0254)	(0.0126)				
Most people try to be fair			0.0931***	0.0518***		
			(0.0287)	(0.0126)		
Most people try to be helpful					0.0808***	0.0465***
					(0.0242)	(0.0123)
Age	0.0108***	0.0101***	0.0111***	0.0101***	0.0119***	0.0104***
	(0.00243)	(0.00137)	(0.00218)	(0.00134)	(0.00231)	(0.00137)
Male	-0.0454	-0.0494	-0.0280	-0.0386	-0.0329	-0.0411
	(0.0395)	(0.0369)	(0.0391)	(0.0381)	(0.0391)	(0.0380)
Education	0.00483	0.0146**	0.00933	0.0171**	0.0122	0.0184**
	(0.0104)	(0.00674)	(0.0106)	(0.00698)	(0.0105)	(0.00708)
Income	-0.00428	0.00246	-0.00165	0.00351	0.00270	0.00556
	(0.0115)	(0.00977)	(0.0125)	(0.00962)	(0.0119)	(0.00907)
Religiosity	0.00511	0.0145**	0.00665	0.0154**	0.00477	0.0149**
	(0.0150)	(0.00595)	(0.0145)	(0.00590)	(0.0147)	(0.00580)
Political orientation	-0.109***	-0.117***	-0.109***	-0.118***	-0.108***	-0.117***
	(0.0269)	(0.0288)	(0.0265)	(0.0287)	(0.0269)	(0.0289)
Married	Reference	Reference	Reference	Reference	Reference	Reference
Separated / Divorced	-0.00937	-0.0282	-0.00477	-0.0308	-0.00464	-0.0305
	(0.0609)	(0.0504)	(0.0615)	(0.0493)	(0.0594)	(0.0483)
Widowed	-0.141**	-0.102**	-0.153**	-0.107**	-0.157**	-0.106**
	(0.0636)	(0.0436)	(0.0631)	(0.0424)	(0.0657)	(0.0438)
Never married	0.114**	0.0945***	0.123**	0.0929***	0.137**	0.0998***
	(0.0483)	(0.0310)	(0.0489)	(0.0298)	(0.0503)	(0.0310)
Employed	Reference	Reference	Reference	Reference	Reference	Reference
Unemployed	0.144*	0.167**	0.130*	0.163**	0.110	0.157**
	(0.0733)	(0.0615)	(0.0720)	(0.0617)	(0.0746)	(0.0614)
In education	0.174	0.195**	0.180*	0.200**	0.198*	0.208**
	(0.106)	(0.0906)	(0.103)	(0.0891)	(0.100)	(0.0880)
Disabled	0.248*	0.304***	0.235	0.285***	0.223	0.283***
	(0.136)	(0.0961)	(0.139)	(0.0994)	(0.134)	(0.0946)
Retired	0.0748	0.164***	0.0547	0.156***	0.0465	0.152***
	(0.0671)	(0.0460)	(0.0678)	(0.0460)	(0.0687)	(0.0460)
Other	0.0968	0.0823	0.0845	0.0811	0.0738	0.0806
	(0.106)	(0.0583)	(0.104)	(0.0582)	(0.101)	(0.0578)
Country fixed effets		Yes		Yes		Yes
Constant	4.545***	4.422***	4.489***	4.418***	4.527***	4.861***
	(0.275)	(0.166)	(0.290)	(0.171)	(0.269)	(0.189)
Observations	30605	30605	30505	30505	30570	30570
R-squared	0.037	0.094	0.032	0.091	0.029	0.091

*** p<0.01, ** p<0.05, * p<0.1
Robust standard errors clustered at the country level in parentheses

Table 1: Relationship between the support for the welfare state and different measures of trust. Individual observations from ESS round 4.

Dependent variable: support for the welfare state

	(1)	(2)	(3)	(4)	(5)	(6)
Many people manage to obtain benefits and services to which they are not entitled	0.269*** (0.0483)	0.203*** (0.0268)				
Most unemployed people do not really try to find a job			0.285*** (0.0425)	0.231*** (0.0373)		
Employees often pretend they are sick in order to stay at home					0.197*** (0.0427)	0.178*** (0.0266)
Age	0.0126*** (0.00284)	0.0106*** (0.00154)	0.0119*** (0.00247)	0.00985*** (0.00132)	0.0124*** (0.00284)	0.00979*** (0.00161)
Male	-0.0441 (0.0416)	-0.0510 (0.0382)	-0.0486 (0.0426)	-0.0502 (0.0376)	-0.0346 (0.0417)	-0.0365 (0.0371)
Education	0.0102 (0.0114)	0.0156** (0.00723)	0.00823 (0.00969)	0.0117* (0.00667)	0.0105 (0.0113)	0.0147* (0.00742)
Income	0.00201 (0.0123)	0.00417 (0.00932)	0.00328 (0.0110)	0.00436 (0.00979)	0.00494 (0.0127)	0.00376 (0.00884)
Religiosity	0.00558 (0.0153)	0.0159** (0.00624)	0.00606 (0.0155)	0.0170*** (0.00581)	0.00780 (0.0154)	0.0191*** (0.00601)
Political orientation	-0.103*** (0.0250)	-0.112*** (0.0278)	-0.0929*** (0.0244)	-0.104*** (0.0268)	-0.103*** (0.0254)	-0.112*** (0.0279)
Married	Reference	Reference	Reference	Reference	Reference	Reference
Separated / Divorced	-0.0105 (0.0613)	-0.0382 (0.0484)	-0.00567 (0.0573)	-0.0362 (0.0478)	0.00915 (0.0625)	-0.0254 (0.0500)
Widowed	-0.150** (0.0617)	-0.0941** (0.0411)	-0.149** (0.0651)	-0.0981** (0.0430)	-0.159** (0.0698)	-0.0984** (0.0448)
Never married	0.153** (0.0559)	0.108*** (0.0332)	0.147*** (0.0518)	0.102*** (0.0320)	0.164*** (0.0570)	0.108*** (0.0323)
Employed	Reference	Reference	Reference	Reference	Reference	Reference
Unemployed	0.0805 (0.0747)	0.129** (0.0598)	0.00649 (0.0853)	0.0838 (0.0553)	0.0708 (0.0794)	0.134** (0.0633)
In education	0.189* (0.103)	0.195** (0.0895)	0.198* (0.0977)	0.193** (0.0889)	0.210** (0.0974)	0.205** (0.0860)
Disabled	0.175 (0.135)	0.247** (0.0917)	0.225* (0.129)	0.274*** (0.0926)	0.197 (0.136)	0.241** (0.0970)
Retired	0.0561 (0.0702)	0.160*** (0.0447)	0.0804 (0.0649)	0.175*** (0.0452)	0.0587 (0.0665)	0.173*** (0.0419)
Other	0.0809 (0.106)	0.0734 (0.0595)	0.0571 (0.0975)	0.0708 (0.0559)	0.0769 (0.0993)	0.0861 (0.0537)
Country fixed effets		Yes		Yes		Yes
Constant	4.236*** (0.276)	4.095*** (0.171)	4.031*** (0.249)	3.997*** (0.161)	4.269*** (0.260)	4.431*** (0.162)
Observations	29795	29795	30394	30394	29882	29882
R-squared	0.037	0.097	0.043	0.102	0.032	0.097

*** $p<0.01$, ** $p<0.05$, * $p<0.1$
Robust standard errors clustered at the country level in parentheses

Table 2: Relationship between the support for the welfare state and perceived civicness. Individual observations from ESS round 4.

Dependent variable: support for the welfare state

	(1)	(2)	(3)	(4)	(5)	(6)
Trust in the parliament	0.113***	0.0709***				
	(0.0189)	(0.0106)				
Trust in the legal system			0.112***	0.0674***		
			(0.0190)	(0.00867)		
Trust in politicians					0.111***	0.0711***
					(0.0217)	(0.0120)
Age	0.0123***	0.0105***	0.0128***	0.0111***	0.0119***	0.0105***
	(0.00236)	(0.00143)	(0.00228)	(0.00140)	(0.00259)	(0.00144)
Male	-0.0744*	-0.0566	-0.0649	-0.0531	-0.0505	-0.0467
	(0.0429)	(0.0382)	(0.0436)	(0.0386)	(0.0418)	(0.0381)
Education	0.0130	0.0150**	0.0123	0.0168**	0.0129	0.0175**
	(0.00910)	(0.00678)	(0.00909)	(0.00681)	(0.0106)	(0.00705)
Income	-0.00562	0.00247	-0.00326	0.00234	-0.00333	0.00441
	(0.0124)	(0.00997)	(0.0121)	(0.00956)	(0.0123)	(0.00971)
Religiosity	-0.00485	0.0121*	-0.00137	0.0127*	-0.00264	0.0116*
	(0.0147)	(0.00638)	(0.0145)	(0.00637)	(0.0151)	(0.00640)
Political orientation	-0.112***	-0.121***	-0.113***	-0.120***	-0.113***	-0.122***
	(0.0266)	(0.0285)	(0.0265)	(0.0284)	(0.0272)	(0.0291)
Married	Reference	Reference	Reference	Reference	Reference	Reference
Separated / Divorced	0.00584	-0.0254	-0.00899	-0.0347	0.00508	-0.0178
	(0.0612)	(0.0517)	(0.0586)	(0.0492)	(0.0612)	(0.0512)
Widowed	-0.134*	-0.104**	-0.130*	-0.101**	-0.148**	-0.105**
	(0.0667)	(0.0438)	(0.0641)	(0.0449)	(0.0647)	(0.0441)
Never married	0.120**	0.0947***	0.132**	0.104***	0.117**	0.0955***
	(0.0506)	(0.0328)	(0.0491)	(0.0305)	(0.0516)	(0.0309)
Employed	Reference	Reference	Reference	Reference	Reference	Reference
Unemployed	0.117*	0.161**	0.135*	0.180***	0.122*	0.156**
	(0.0661)	(0.0633)	(0.0695)	(0.0606)	(0.0663)	(0.0631)
In education	0.159	0.181*	0.175*	0.199**	0.162	0.181*
	(0.100)	(0.0879)	(0.101)	(0.0893)	(0.105)	(0.0895)
Disabled	0.240*	0.285***	0.243*	0.290***	0.227	0.289***
	(0.137)	(0.0943)	(0.131)	(0.0931)	(0.142)	(0.0957)
Retired	0.0539	0.148***	0.0743	0.156***	0.0443	0.144***
	(0.0709)	(0.0456)	(0.0637)	(0.0434)	(0.0683)	(0.0446)
Other	0.0370	0.0823	0.0670	0.0977	0.0658	0.0825
	(0.0903)	(0.0605)	(0.0893)	(0.0597)	(0.107)	(0.0610)
Country fixed effects		Yes		Yes		Yes
Constant	4.503***	4.974***	4.385***	4.404***	4.618***	4.960***
	(0.219)	(0.194)	(0.222)	(0.166)	(0.237)	(0.194)
Observations	30351	30351	30265	30265	30420	30420
R-squared	0.040	0.095	0.042	0.095	0.037	0.094

*** $p<0.01$, ** $p<0.05$, * $p<0.1$
Robust standard errors clustered at the country level in parentheses

Table 3: Relationship between the support for welfare state and trust in institutions. Individual observations from ESS round 4.

Dependent variable: support for the welfare state

	(1)	(2)	(3)	(4)	(5)	(6)
Efficiency tax system	0.101***	0.0748***				
	(0.0189)	(0.0129)				
Advantages tax system			0.107***	0.0701***		
			(0.0170)	(0.0102)		
Efficiency health care					0.118***	0.0831***
					(0.0220)	(0.0112)
Age	0.0132***	0.0108***	0.0123***	0.0109***	0.0125***	0.0107***
	(0.00275)	(0.00161)	(0.00258)	(0.00160)	(0.00256)	(0.00146)
Male	-0.0474	-0.0491	-0.0465	-0.0483	-0.0717*	-0.0638*
	(0.0439)	(0.0388)	(0.0448)	(0.0385)	(0.0406)	(0.0371)
Education	0.0151	0.0185**	0.0115	0.0174**	0.0176*	0.0196***
	(0.0106)	(0.00732)	(0.0101)	(0.00716)	(0.0101)	(0.00695)
Income	0.00748	0.00709	-0.000963	0.00355	0.00227	0.00728
	(0.0115)	(0.00922)	(0.0114)	(0.01000)	(0.0122)	(0.00904)
Religiosity	0.000602	0.0123*	0.00383	0.0130*	-0.000593	0.0108*
	(0.0152)	(0.00705)	(0.0147)	(0.00678)	(0.0146)	(0.00619)
Political orientation	-0.115***	-0.122***	-0.120***	-0.124***	-0.110***	-0.119***
	(0.0259)	(0.0285)	(0.0272)	(0.0292)	(0.0253)	(0.0279)
Married	Reference	Reference	Reference	Reference	Reference	Reference
Separated / Divorced	-0.00841	-0.0400	-0.0386	-0.0577	-0.0200	-0.0396
	(0.0650)	(0.0516)	(0.0624)	(0.0475)	(0.0625)	(0.0493)
Widowed	-0.159**	-0.118***	-0.181**	-0.141***	-0.132*	-0.107**
	(0.0618)	(0.0387)	(0.0648)	(0.0413)	(0.0680)	(0.0445)
Never married	0.150**	0.0915***	0.135**	0.0982***	0.126**	0.0946***
	(0.0541)	(0.0303)	(0.0530)	(0.0326)	(0.0501)	(0.0312)
Employed	Reference	Reference	Reference	Reference	Reference	Reference
Unemployed	0.0662	0.131*	0.0844	0.132**	0.104	0.163**
	(0.0763)	(0.0638)	(0.0699)	(0.0603)	(0.0708)	(0.0595)
In education	0.205**	0.217**	0.163*	0.189**	0.171*	0.176**
	(0.0895)	(0.0781)	(0.0937)	(0.0813)	(0.0829)	(0.0698)
Disabled	0.199	0.262**	0.139	0.211**	0.190	0.279**
	(0.136)	(0.0963)	(0.128)	(0.0950)	(0.134)	(0.0995)
Retired	0.0321	0.145***	0.0451	0.138***	0.0373	0.143***
	(0.0706)	(0.0416)	(0.0666)	(0.0424)	(0.0729)	(0.0465)
Other	0.0781	0.0900	0.0690	0.0898	0.0556	0.0820
	(0.102)	(0.0609)	(0.101)	(0.0581)	(0.0995)	(0.0592)
Country fixed effets		Yes		Yes		Yes
Constant	4.322***	4.788***	4.456***	4.375***	4.230***	4.826***
	(0.232)	(0.200)	(0.238)	(0.187)	(0.240)	(0.186)
Observations	29108	29108	29077	29077	30396	30396
R-squared	0.035	0.095	0.043	0.097	0.039	0.095

*** $p<0.01$, ** $p<0.05$, * $p<0.1$
Robust standard errors clustered at the country level in parentheses

Table 4: Relationship between the support for the welfare state and the perceived efficiency of the welfare state. Individual observations from ESS round 4.

Dependent variable : support for the welfaire state

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Trust	0.166***						
	(0.0311)						
Civism (benefits)		-0.162***					
		(0.0436)					
Civism (transport)			-0.149***				
			(0.0404)				
Civism (taxes)				-0.0722*			
				(0.0398)			
Civism (bribe)					-0.0821**		
					(0.0364)		
Civism (litter)						-0.292***	
						(0.0764)	
Civism (stolen goods)							-0.188***
							(0.0489)
Age	0.000248	0.000891	0.00104	0.000715	0.000663	0.00247	-0.00110
	(0.00126)	(0.00124)	(0.00122)	(0.00122)	(0.00125)	(0.00280)	(0.00193)
Male	-0.0869***	-0.101***	-0.0994***	-0.0976***	-0.0974***	-0.205***	-0.0972**
	(0.0235)	(0.0244)	(0.0241)	(0.0230)	(0.0234)	(0.0507)	(0.0398)
Education	-0.107***	-0.108***	-0.105***	-0.106***	-0.106***	-0.136***	-0.133***
	(0.0107)	(0.0103)	(0.00994)	(0.0103)	(0.0103)	(0.0214)	(0.0136)
Income	-0.0942***	-0.0901***	-0.0950***	-0.0918***	-0.0918***	-0.0860***	-0.0992***
	(0.0118)	(0.0118)	(0.0106)	(0.0116)	(0.0118)	(0.0126)	(0.0178)
Religiosity	0.00137	0.00269	0.00187	0.00312	0.00328	0.0348**	0.0109
	(0.00591)	(0.00648)	(0.00664)	(0.00641)	(0.00631)	(0.0134)	(0.00874)
Political orientation	-0.137***	-0.138***	-0.138***	-0.137***	-0.138***	-0.174***	-0.150***
	(0.0125)	(0.0134)	(0.0136)	(0.0132)	(0.0132)	(0.0220)	(0.0197)
Married	Reference	Reference	Reference	Reference	Reference	Reference	Reference
Separated / Divorced	-0.000109	0.000160	-0.00894	0.00299	0.000150	-0.0947	-0.0208
	(0.0459)	(0.0463)	(0.0465)	(0.0465)	(0.0473)	(0.108)	(0.0902)
Widowed	0.0568	0.0573	0.0448	0.0571	0.0614	-0.0256	0.104
	(0.0425)	(0.0431)	(0.0442)	(0.0431)	(0.0434)	(0.0850)	(0.0731)
Never married	0.0112	0.00663	0.0131	0.0211	0.0217	-0.00287	-0.0683
	(0.0295)	(0.0279)	(0.0312)	(0.0292)	(0.0290)	(0.0702)	(0.0578)
Employed	Reference	Reference	Reference	Reference	Reference	Reference	Reference
Unemployed	0.145***	0.139***	0.137***	0.136***	0.138***	0.0866	0.160**
	(0.0339)	(0.0339)	(0.0358)	(0.0341)	(0.0342)	(0.0605)	(0.0769)
In education	0.0656	0.0535	0.0524	0.0502	0.0442	-0.135	0.0653
	(0.0598)	(0.0601)	(0.0639)	(0.0614)	(0.0606)	(0.0947)	(0.103)
Retired	0.129**	0.130**	0.114**	0.128**	0.130**	0.180	0.199***
	(0.0518)	(0.0524)	(0.0505)	(0.0526)	(0.0520)	(0.107)	(0.0659)
Other	0.0457	0.0655*	0.0656*	0.0708**	0.0697**	0.000208	0.0318
	(0.0461)	(0.0359)	(0.0359)	(0.0346)	(0.0348)	(0.0601)	(0.0644)
Constant	8.497***	8.563***	8.474***	7.451***	7.479***	9.568***	5.323***
	(0.277)	(0.277)	(0.268)	(0.122)	(0.123)	(0.217)	(0.220)
Observations	144291	138965	133242	141945	142192	22538	47757
R-squared	0.113	0.111	0.109	0.110	0.110	0.154	0.105

*** p<0.01, ** p<0.05, * p<0.1
Robust standard errors clustered at the country level in parentheses
All regressions include time and country fixed effects

Table 5: Relationship between the support for the welfare state and civism, measured using different propensities that some behaviors are unjustifiable. Individual observations from the WVS.

Dependent variable :	Standard of living of pensioners				Standard of living of unemployed			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Most people can be trusted	0.608***				0.642***			
	(0.157)				(0.122)			
Corruption perception index		0.401***				0.425***		
		(0.0935)				(0.0682)		
Trust in the legal system			0.402**				0.292	
			(0.157)				(0.176)	
Fairness of tax authorities				0.414**				0.459***
				(0.177)				(0.145)
Total social expenditure	-0.00612	-0.0441	0.0430	0.0361	-0.0129	-0.0532	0.0470	0.0306
	(0.0517)	(0.0563)	(0.0538)	(0.0512)	(0.0354)	(0.0313)	(0.0542)	(0.0454)
Observations	24314	24314	24314	24314	24133	24133	24133	24133
R-squared	0.121	0.137	0.083	0.087	0.154	0.177	0.078	0.112
Dependent variable :	State of education				State of health services			
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Most people can be trusted	0.807***				0.512**			
	(0.166)				(0.213)			
Corruption perception index		0.352**				0.412***		
		(0.125)				(0.101)		
Trust in the legal system			0.463*				0.338	
			(0.231)				(0.212)	
Fairness of tax authorities				0.694***				0.563***
				(0.169)				(0.167)
Total social expenditure	-0.0497	-0.0503	0.0203	-0.00320	-0.00976	-0.0621	0.0318	0.0104
	(0.0476)	(0.0543)	(0.0639)	(0.0532)	(0.0593)	(0.0571)	(0.0530)	(0.0459)
Observations	23754	23754	23754	23754	24385	24385	24385	24385
R-squared	0.135	0.083	0.062	0.114	0.066	0.101	0.044	0.081

*** $p<0.01$, ** $p<0.05$, * $p<0.1$
Robust standard errors clustered at the country level in parentheses
All regression include age, gender, education, income, religiosity, political orientation, marital status and employment status

Table 6: Relationship between the average perceived transparency of the state and its efficiency. Individual observations from ESS round 4.

Dependent variable: support for the welfare state						
	(1)	(2)	(3)	(4)	(5)	(6)
Generation	First	Second	First	Second	First	Second
Most people can be trusted in residence contry	0.282**	0.398***				
	(0.126)	(0.108)				
Most people try to be fair in residence contry			0.0930	0.192*		
			(0.105)	(0.102)		
Most people try to be helpful in residence contry					0.0579	0.287**
					(0.0812)	(0.131)
Demand for redistribution in origin country	0.302**	0.0855	0.343**	0.266	0.354***	0.248
	(0.131)	(0.197)	(0.136)	(0.190)	(0.124)	(0.198)
Observations	1476	1292	1476	1292	1476	1292
R-squared	0.029	0.055	0.018	0.035	0.017	0.040

*** $p<0.01$, ** $p<0.05$, * $p<0.1$
Robust standard errors clustered at the country level in parentheses
Regressions include age, gender, marital status, employment status, income and a constant term.

Table 7: Relationship between the demand for redistribution and different measures of trust, controlling for the demand for redistribution in origin country. First and second generation immigrants.

Dependent variable: support for the welfare state

Generation	(1) First	(2) Second	(3) First	(4) Second	(5) First	(6) Second
Trust in the legal system in residence contry	0.140 (0.101)	0.381*** (0.133)				
Trust in politicians in residence contry			0.157 (0.136)	0.292** (0.131)		
Trust in the parliament in residence contry					0.186 (0.114)	0.294*** (0.0880)
Demand for redistribution in origin country	0.353** (0.133)	0.102 (0.221)	0.350** (0.128)	0.151 (0.175)	0.358*** (0.120)	0.145 (0.178)
Observations	1476	1292	1476	1292	1476	1292
R-squared	0.022	0.056	0.023	0.047	0.027	0.051

*** p<0.01, ** p<0.05, * p<0.1
Robust standard errors clustered at the country level in parentheses
Regressions include age, gender, marital status, employment status, income and a constant term.

Table 8: Relationship between the demand for redistribution and different measures of trust in institutions, controlling for the demand for redistribution in origin country. First and second generation immigrants.

Dependent variable: support for the welfare state

	(1)	(2)	(3)	(4)	(5)	(6)
	First	Second	First	Second	First	Second
Demand for redistribution	0.754***	0.104	0.698***	0.0924		
in origin country	(0.192)	(0.222)	(0.196)	(0.290)		
Real GDP per capital	0.175	0.772**	0.0813	0.717**		
in origin country	(0.222)	(0.325)	(0.212)	(0.330)		
Total social expenditure	0.00629	-0.0629	0.0157	-0.0409		
in origin country	(0.0169)	(0.0435)	(0.0152)	(0.0496)		
Demand for redistribution	0.822**	0.521**			0.772**	0.613**
in residence country	(0.335)	(0.240)			(0.317)	(0.216)
Real GDP per capital	-0.911	0.303			-0.695	0.784*
in residence country	(0.536)	(0.334)			(0.552)	(0.411)
Total social expenditure	-0.0109	-0.0183			0.00399	-0.0552**
in residence country	(0.0167)	(0.0216)			(0.0202)	(0.0242)
Residence country fixed effects			Yes	Yes		
Origin country fixed effects					Yes	Yes
Observations	649	722	649	722	649	722
R-squared	0.085	0.071	0.104	0.085	0.102	0.081

*** $p<0.01$, ** $p<0.05$, * $p<0.1$
Robust standard errors clustered at the country level in parentheses
Regressions include age, gender, marital status, employment status, income and a constant term.

Table 9: Relationship between the individual support for the welfare state and the support for the welfare state in the country of origin and in the country of residence. First and second generation immigrants.

Dependent variable: support for the welfare state (via income equality)		
	(1)	(2)
Trust	0.302***	0.180***
	(0.0824)	(0.0318)
Luck	-0.00535	-0.00828
	(0.0162)	(0.0122)
Country fixed effects		Yes
Observations	89602	89602
R-squared	0.046	0.110

*** p<0.01, ** p<0.05, * p<0.1
Robust standard errors clustered at the country level in parentheses
Regressions include age, gender, marital status, employment status,
education, income, religiosity, political orientation, year of interview
fixed effects and a constant term.

Table 10: Relationship between the demand for redistribution and trust. Robustness check using the perception of success. Individual observations from the WVS.

Dependent variable : support for the welfaire state (via income equality)

	(1)	(2)	(3)	(4)	(5)	(6)
Luck	-0.0101	-0.00507	-0.00791	-0.00722	-0.0181	-0.0151
	(0.0126)	(0.0129)	(0.0127)	(0.0127)	(0.0221)	(0.0124)
Civism (benefits)	-0.166***					
	(0.0524)					
Civism (transport)		-0.126***				
		(0.0474)				
Civism (taxes)			-0.0739			
			(0.0531)			
Civism (bribe)				-0.0624		
				(0.0417)		
Civism (litter)					-0.415	
					(0.179)	
Civism (stolen goods)						-0.207***
						(0.0496)
Observations	87720	86528	89187	89319	3907	44638
R-squared	0.110	0.113	0.109	0.109	0.079	0.111

*** p<0.01, ** p<0.05, * p<0.1
Robust standard errors clustered at the country level in parentheses
Regressions include age, gender, marital status, employment status, education, income, religiosity,
political orientation, year of interview fixed effects, country fixed effects and a constant term.

Table 11: Relationship between the demand for redistribution and trust. Robustness check using the perception of succes. Individual observations from the WVS.

Dependent variable: support for the welfare state

	(1)	(2)	(3)	(4)	(5)	(6)
Most people can be trusted	0.0740***	0.0719***				
	(0.0132)	(0.0125)				
Most people try to be fair			0.0492***	0.0514***		
			(0.0130)	(0.0129)		
Most people try to be helpful					0.0477***	0.0487***
					(0.0133)	(0.0129)
Respondent education interacted with father's education	Yes		Yes		Yes	
Respondent education interacted with mother's education		Yes		Yes		Yes
Observations	28776	29438	28694	29343	28750	29409
R-squared	0.095	0.095	0.092	0.092	0.091	0.092

*** p<0.01, ** p<0.05, * p<0.1
Robust standard errors clustered at the country level in parentheses
Regressions include age, gender, marital status, employment status, income, religiosity,
political orientation, country fixed effects and a constant term.

Table 12: Relationship between the demand for redistribution and different measures of trust. Robustness check with the education of parents. Individual observations from ESS round 4.

Appendix

Dependent variable : trust

Norway	Reference	Age	0.00175***
			(0.000409)
Australia	-0.193***	Male	-0.00987*
	(0.0403)		(0.00590)
Austria	-0.247***	Education	0.0323***
	(0.0239)		(0.00338)
Belgium	-0.281***	Income	0.0105***
	(0.0187)		(0.00228)
Canada	-0.229***	Religiosity	0.00870***
	(0.0313)		(0.00175)
Czech Republic	-0.304***	Political orientation	-0.00782***
	(0.0165)		(0.00270)
Denmark	-0.00268	Married	Reference
	(0.0501)		
Finland	-0.0757**	Separated / Divorced	-0.0178**
	(0.0352)		(0.00783)
France	-0.301***	Widowed	-0.0149
	(0.0150)		(0.0126)
Germany	-0.239***	Never married	0.00476
	(0.0279)		(0.00857)
Greece	-0.314***	Employed	Reference
	(0.0104)		
Hungary	-0.295***	Unemployed	-0.0593***
	(0.0140)		(0.0129)
Ireland	-0.243***	In education	0.0366*
	(0.0236)		(0.0189)
Italy	-0.261***	Retired	-0.0518***
	(0.0242)		(0.00777)
Japan	-0.228***	Other	-0.0279***
	(0.0339)		(0.0108)
South Korea	-0.305***		
	(0.0152)	Observations	58873
Luxembourg	-0.283***	Pseudo R-squared	0.113
	(0.0164)		
Mexico	-0.289***		
	(0.0132)		
Netherlands	-0.141***		
	(0.0382)		
New Zealand	-0.240***		
	(0.0328)		
Poland	-0.309***		
	(0.0137)		
Slovakia	-0.327***		
	(0.0108)		
Spain	-0.240***		
	(0.0284)		
Sweden	-0.0619*		
	(0.0317)		
Switzerland	-0.146***		
	(0.0356)		
Turkey	-0.378***		
	(0.0186)		
United Kingdom	-0.269***		
	(0.0203)		
United States	-0.260***		
	(0.0259)		

*** p<0.01, ** p<0.05, * p<0.1
Robust standard errors clustered at the country level in parentheses
Time fixed effects are included
Marginal effects from the estimation of a probit model

Table 13: Determinants of trust in others. Individual observations from WVS.

Dependent variable : confidence in institutions

Norway	Reference	Age	0.000589
			(0.000377)
Australia	-0.307**	Male	-0.00733
	(0.133)		(0.0176)
Austria	-0.263*	Education	0.0120
	(0.143)		(0.00913)
Belgium	-0.516***	Income	0.0107***
	(0.144)		(0.00368)
Canada	-0.205	Religiosity	0.0353***
	(0.142)		(0.00360)
Czech Republic	-0.806***	Political orientation	0.0175**
	(0.139)		(0.00819)
Denmark	-0.0747	Married	Reference
	(0.141)		
Finland	-0.0650	Separated / Divorced	-0.0705***
	(0.0760)		(0.0153)
France	-0.420***	Widowed	0.0153
	(0.136)		(0.0220)
Germany	-0.446***	Never married	-0.0225*
	(0.136)		(0.0131)
Greece	-0.934***	Employed	Reference
	(0.148)		
Hungary	-0.463***	Unemployed	-0.0649**
	(0.139)		(0.0256)
Ireland	-0.372**	In education	0.0724***
	(0.146)		(0.0205)
Italy	-0.555***	Retired	0.0322**
	(0.137)		(0.0144)
Japan	-0.326**	Other	0.0621
	(0.155)		(0.0486)
South Korea	-0.241***	Constant	-0.108
	(0.0811)		(0.0838)
Luxembourg	-0.128		
	(0.143)	Observations	47666
Mexico	-0.597***	R-squared	0.104
	(0.0631)		
Netherlands	-0.385**		
	(0.139)		
New Zealand	-0.692***		
	(0.148)		
Poland	-0.683***		
	(0.133)		
Slovakia	-0.595***		
	(0.144)		
Spain	-0.315***		
	(0.0968)		
Sweden	-0.0495		
	(0.0716)		
Switzerland	-0.150***		
	(0.0393)		
Turkey	-0.139***		
	(0.0323)		
United Kingdom	-0.312**		
	(0.140)		
United States	-0.396***		
	(0.130)		

*** p<0.01, ** p<0.05, * p<0.1
Robust standard errors clustered at the country level in parentheses
Time fixed effects are included

Table 14: Determinants of confidence in institutions. Individual observations from WVS.
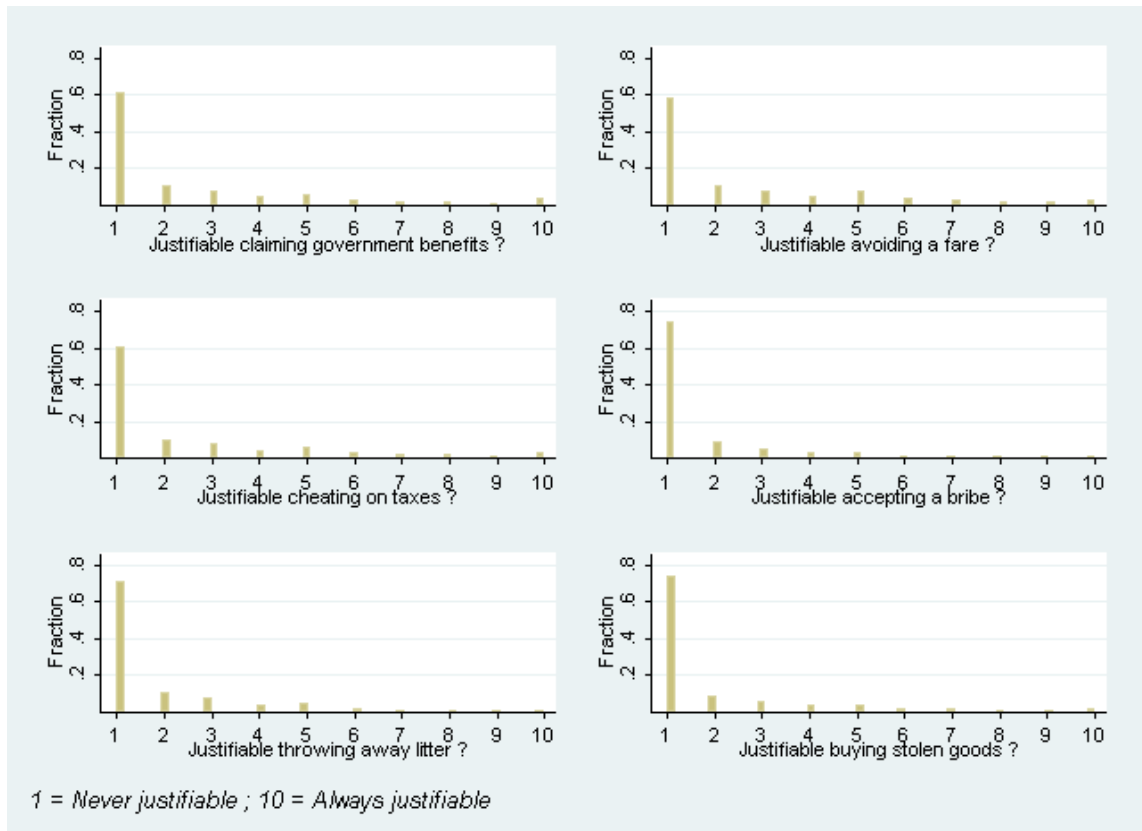
Figure 13: Distribution of answers to civicness related questions. Source: World Values Survey.