Income Inequality and Organisational Trust in Europe – Perception and Reality

Abstract

The undesirable outcomes linked to high levels of income inequality are numerous. The existing literature argues that negative effects of inequality are channelled by low levels of trust. This study gives evidence that trust in government organisations diminishes in an environment of high inequality. With the introduction of a subjective measure of how individuals perceive income inequality, past limitations in quantifying the underlying mechanism between inequality and trust are addressed. A significant negative association between perceived inequality and trust in political institutions, like the government and the EU, is found using a sample of 27 European countries. Additionally, the negative interaction effect of perceived and actual income inequality with institutional trust appears to be stronger for individuals with previously low levels of trust and is weakened for citizens with a predicted high level of confidence in government institutions.

Keywords: Inequality, Perception, Social Capital, Trust.

JEL: D63, Z13.

1 Introduction

The undesirable outcomes linked to high levels of income inequality are numerous. Among several, these are poor educational performance (Kawachi et al. 1997), violence (Patterson 1991), low levels of wellbeing (Alesina et al. 2011) and health (Wilkinson 2006), as well as slow economic growth (Barro 2000) or low provision rates of social goods (Wilkinson and Pickett 2009). It is argued that those negative effects of inequality are channelled by low levels in trust (Wilkinson and Pickett 2009). In addition, it has been shown that social trust is indeed negatively affected by income inequality (Leigh 2006; Putnam 2007; Uslaner and Brown 2005; Gustavsson and Jordahl 2008). The essential argument why inequality reduces social trust is that in societies with high inequality, differences between individuals are too large for them to feel connected and to trust each other. Which is, in return, reflected by a society's capability for collaborative action, such as innovation (Stephany et al. 2019).

However, most of the existing literature refers to social or generalised trust when trying to explain how income inequality harms society (Stephany 2019b & Stephany 2017). One could assume that trust in organisations, for example, in the government or in the EU, diminishes as well in an environment of high inequality, since appropriate political representation is questioned (Stephany 2019a). It is the distribution of resource which helps to explain levels of organisational trust. In a society where high income is related to high political influence, an increase in income inequality is associated to a skewed representation of the people in political bodies. The increase of inequality in political representation could result in frustration of the less influential part of the society which would then lead to a lack of trust in political institutions. Lynch (2000, p.1202) points out that the effect of income inequality on trust can be traced back to the disparity of resources which leads to a "...systematic underinvestment across a wide range of human, physical, health, and social infrastructure...". Unwanted consequences have been also documented, for example, in health care supply (Firth-Cozens 2004), in the work of NGOs (Kramer 1999), and in banking (Seal 1998).

So far, studies on the linkage between income inequality and trust mainly suffer from three limitations. Firstly, most of the research, which concludes with a negative relation between income inequality and generalized trust, has examined the effect on a national level (Leigh 2006; Rothstein and Uslaner 2005; Jordahl 2007; Gustavsson and Jordahl 2008). The potential loss of information due to aggregation has been raised. Subsequently, other scholars have shown that individual factors like optimism in life (Uslaner 2002), personal economic success (Dohmen, Verbakel and Kraaykamp 2010) or ethnic fragmentation (Alesina and La Ferrara 2002) have a notable influence on generalised trust. But even when researchers tried to contribute to this shortcoming by applying individual control characteristics on one side, the measure of income inequality, on the other side, remained aggregated (Braesemann and Stephany 2017, Stephany and Braesemann 2017).

The second problem of most of the previous studies is that even though the empirical results indicate a negative association between generalized trust and inequality, the mechanism behind the phenomenon is often not entirely clear. One line of reasoning is that the more stratified societies are, the more closed they become and people are less likely to interact with others from different economic strata. This so called *stratification effect* can be traced back to the actual allocation of resources (Elgar and Aitken 2010; Wilkinson and Pickett 2009). Another argument is that individuals in unequal economies – particularly at the lower end of the income distribution – do not perceive the others to share the same living realities or fate (Uslaner and Brown 2005). Because of this *perception effect*, they refuse to trust others with whom they share so little. The envy of the less fortunate (Wilkinson and Pickett 2009), a lack of optimism (Rothstein and Uslaner 2005; Delhey and Newton

2005) or egalitarian values (Gustavsson and Jordahl 2008) have proven to be mechanisms through which income perception interacts with trust. Following along this line of argumentation, it would be the perception of economic disparities and not the actual economic measure influencing levels of trust. Standard objective measures of income inequality, like the Gini coefficient, would then at least partly fail to capture both the *stratification effect* and the *perception effect* in only one variable.

An additional doubt about the completeness of the existing results of the relation of income inequality and social trust is cast by the selection of countries in the empirical analysis. The negative inequality-trust relationship in some studies seems to be driven by a group of non-western countries with relatively high levels of inequality (Rohstein and Uslaner 2005). For one, high inequality countries, such as Latin America, are culturally substantively different from low inequality regions (Oyserman and Lee 2008). They have a relatively low level of per capita income, which leads to a high correlation of wealth and income inequality. Furthermore, it might be possible that income inequality (or its perception) unfold an effect on organisational trust just after passing a certain threshold, instead of showing a linear influence. It might be that income inequality becomes a more powerful predictor of organisational trust in unequal countries than in more equal societies, since poverty and inequality have been proven to jointly hinder trust more severely (Wilkinson and Pickett 2009).

In this study, the first two shortcomings of the past are tackled by the use of an additional subjective and individual measurement of inequality. In this way, the study is able to distinguish the *perception effect* and the *stratification effect* and measure their influences on trust separately. In order to avoid a potential bias of high inequality countries, the study focuses on the EU27 and finally sheds some light on the relationship between income inequality and organisational trust in European 'low inequality' countries. The examined sample of countries is more homogenous; though it shows a substantial variation in both, income inequality, and organisational trust. Lastly, statements about the interplay of economic reality and individual perception are possible with the results of the examination of interaction terms. Our results indicate that income inequality is negatively associated with organisational trust, at least for political bodies. The same holds true for perceived income inequality. Regarding the interaction of income inequality and perception, it can be seen that a combination of both a high inequality surrounding and a strong belief in the urge of economic imbalances lead to poor levels of trust.

In the following, second section, the paper presents the data and methodology applied to it. The third section shows the results of the model. The last section concludes.

2 Data and Methodology

Sample

For testing the hypothesis of a negative relationship between income inequality and organisational trust two datasets are used. The data about national Gini levels of net household income come from the EU-SILC 2009 dataset, in which all EU27 countries are included. Here, the Gini coefficient is measured on a scale from 0 (perfectly equal distribution of income) to 100 (perfectly unequal distribution). The 2009 edition of Eurobarometer (EB) on Poverty and Social Exclusion delivers the individual characteristics, categories of organisational trust, and a subjective measurement of perceived income inequality. After keeping only individuals with all necessary information, 26.635 observations in 27 countries remain.

The original question about perceived inequality in the EB reads: *“Nowadays in (OUR COUNTRY) income differences between people are far too large?”*. Answers to this question are coded in a four-step fashion, with the outcomes *“Totally disagree”* (1), *“Tend to disagree”* (2), *“Tend to agree”* (3), and *“Totally agree”* (4).

The EB asks two different questions regarding the trust of Europeans in local and national authorities. The first one concerns the general trust in the national government and the national parliament. It reads: *“Please tell me how much you personally trust each of the following institutions using a scale from 1 to 10 where [1] means ‘you do not trust the institution at all’ and [10] means ‘you trust it completely’!”*. Answers therefore result in a 10 scale outcome. The second question elaborates on the people’s trust in the fight against poverty of the following institutions; The European Union, the (national) government, regional or local authorities, NGOs and charities, religious institutions, private companies, and the citizens themselves. The question is phrased: *“For each of the following, please tell me if you tend to trust it or not with regard to their action in combating poverty.”* The EB codes the answers to this question as *“Tend not to trust it”* (0) and *“Tend to trust it”* (1). Table 1 displays the levels of (perceived) inequality and trust. It can be seen that there is a relatively big variation in the trust variables and the two inequality measures across EU27 countries. Figure 1 explains the correlation between the two inequality measures and trust in government and shows that while actual inequality and perceived inequality are not entirely in line, the simple correlation coefficient between the Gini and country-aggregated perception is 0.33. Country aggregates of institutional trust and (perceived) inequality, on the other hand, have some basic association at first sight.

Methodology

The work by Steijn and Lancee (2011) has made some contribution on the possible interplay between actual, perceived inequality and generalized trust. Controlling for perceived inequality and national wealth, they do not find any robust negative association between inequality and generalized trust. Their methodological framework shall serve as a starting point with further improvements to be made: In addition to national wealth (2009 GDP per Capita) it might be interesting to see if individual wealth – particularly for the case of perceived inequality – plays an equally important role. The household’s financial outlook contributes at this stage. In the following analysis, results are additionally given as marginal effects¹. Lastly, though their dependent variable, generalised trust, has an ordinal output from one to ten, the authors decided to employ a simple logit model rather than an ordinal one. They justify this by arguing that the skewed distribution of generalised trust would violate the proportional odds assumption.

The effect of perceived and actual inequality is examined in two mixed-effect logit models with country clusters, the first, with the dependent variable of general organisational trust, the second, with the dependent variable of organisational trust in poverty combating. At a later stage the marginal effects of Gini, income perception, and their interaction are presented separately. Particular attention is paid to the interpretation of the interaction term. The significance and the sign of the effect might be different for different observations. Though this issue of statistical complexity has been raised convincingly by some scholars in the past, many even well-published pieces of research

¹ Steijn and Lancee (2011) report their results in logit coefficients, rather than calculating the marginal effects of the associations of (perceived) inequality with trust.

have mistakenly misinterpreted the interaction effect in non-linear probit or logit models (Norton and Wang, 2004, pp.154)².

Beside actual inequality, perceived inequality, their interaction term and 2009 GDP per Capita³, the following individual characteristics are used to explain trust in institutions: Age, years of education, dummies for different employment statuses, as well as for marital statuses. Some more individual controls are supposed to improve the accuracy of the estimation. Satisfaction with life has been shown to be interrelated with both inequality and trust. The question to which extent poverty is a problem in the individual's society might be important for the examination of organisational trust in poverty fighting. In addition a self-stated valuation of the household's financial outlook is given, which is meant to control for personal wealth. Controls for rural and urban areas are added as well⁴.

3 Results

Before examining the association between (perceived) income inequality and organisational trust, the analysis of some individual characteristics in the inequality-trust relationship is helpful to better understand the overall context. At the bottom of table 2, the characteristics of life satisfaction and generalized trust, exhibit a clear pattern across all measures of institutional trust. The more people trust each other in general, the more they trust their institutions, and at the same time, the more satisfied they are with their life, the higher their level of organisational trust. A similarly homogeneous association can be found between the household's financial outlook and organisational trust. The worse individuals believe their household finance will be in the future, the less they tend to trust institutions and their work against poverty on average. In addition, it can be found that trust in the poverty alleviation of local governments, religious institutions, private companies and citizens, increases with population density in the community and that trust in governments, parliaments, as well as in the work of the EU and (local) governments diminishes, the more individuals believe that poverty is a widespread problem. Interestingly, while the younger individuals are, the less they tend to trust their own government, parliament and religious institutions, the more they rely on the poverty fighting of the EU and NGOs.

Table 3 summarizes the marginal effects of inequality, perceived inequality and their interaction, including all other covariates mentioned in table 3, in three separate models. First, the two inequality measures are taken into consideration; second, all the marginal effect of the interaction term is shown in addition. For general trust, the government and the parliament are taken into consideration. For trust in poverty alleviation the EU, the government, local governments, NGOs, religious institutions, private companies and the citizens themselves are the institutions in question.

For the case of the government (parliament), macroeconomic income inequality appears to have a negative and significant association with general trust and trust in poverty fighting. This observation supports the previous findings on organisational trust and inequality. For perceived inequality the

² A well-explained outline of the correct interpretation of interaction effects in non-linear models can be found in the work of Ai and Norton (2003). Mainly interpretation mistakes can be avoided by displaying the interaction effect graphically over the interval of predicted probability of the dependent variable. The performance of a Z-test for the interaction effect across the predicted probability can help to resolve questions about the effect's significance. Both types of graphical assistance are applied in the further analysis.

³ Information about the 2009 Gross Domestic Product per Capita in current terms has been retrieved from Eurostat, for details see European Commission (2014).

⁴ See Appendix for a detailed description.

negative linkage seems to be even more dominant, with the exception of trust in EU's and citizens' poverty alleviation. In this sense, inequality perception has a more widespread negative association with confidence in institutions. The *perception effect*, exceeds the *stratification effect* in terms of its range.

The interaction effect is quite more difficult to interpret. By examining the average marginal effect of Model 2 in table 3, no significantly negative association between trust and high levels of perceived inequality in the context of real income imbalances can be observed. Nevertheless, at this point it should be made clear that in non-linear models the interpretation of the interaction term is not as intuitive as in linear models. The bare number shows no significant marginal interaction effect of Gini and inequality perception on general trust in the government. The calculation has been performed in the way that the effect of a marginal increase in perceived inequality, given a certain level of Gini, across the predicted probability of trusting the government is shown in Figure 2a). The marginal effect of the interaction term varies significantly both in magnitude and direction across predicted probabilities. Other covariates predicting institutional trust play an influential role, apparently. For individuals with a predicted low level of trust in their government, on the left end of the distribution, a marginal increase in inequality perception in the context of real income inequality has a negative effect. While on the right end of the scale, where predicted trust is high, marginal increases in subjective income inequality, under given inequality levels, show a positive effect on trust in the government. A corresponding Z-test confirms that these results at the low and high end of the predicted trust scale are significant. In the same framework, similar patterns are displayed for trust in the parliament and in the government's poverty alleviation (Figure 2b and 2d). The effects of the interaction term on the remaining items of institutional trust, on average, suffer from a lack of statistical significance (see Z-tests in Figure 2a-i). An exception might be the case of trust in the EU's and local governments' poverty combat. Here, again, significantly positive effects at the right end of the scale can be noticed.

4 Conclusions

The analysis has confirmed some prior assumptions about the linkage of trust and income inequality and, at the same time, revealed new findings on the association between income inequality and the perception of it with regard to institutional trust.

First, some descriptive findings about inequality and trust are worth noticing. In the EU 27 income imbalances are perceived as relatively high. With an average numeric response of 3.5 (on a 1-4 scale), all citizens on average at least believe that income imbalances have become (far) too high in the last years. On the other hand, trust in national governments is surprisingly low. With a numeric average of 4.0 (1-10), most citizens in Europe declare, that they rather do not tend to trust their government. Second, income inequality and perceived inequality do not measure the same thing. The two measures only show a relatively weak simple correlation. Therefore, they have to be examined separately and the effort should be made to evaluate their joint potential towards institutional trust. Third, income inequality and perceived income inequality have a significantly negative association – in marginal terms – with institutional trust and with the confidence in the poverty combat of major institutions in society. Generally, it can be stated that whenever economic or perceived income inequality is high, trust in government institutions is low. Fourth, the analysis of joint effects of income inequality and perceived inequality on institutional trust should be interpreted with some deliberation. The interaction effect in non-linear models can be different across the outcome levels

of the dependent variable. For general trust in the government and the parliament, as well as for trust in poverty alleviation of the government, a S-shaped pattern across the predicted probability can be noticed. Two different interpretations can be made. For individuals with predicted low levels of trust, higher subjective inequality seems to have an ever stronger negative impact in the context of real income inequality. For citizens with a high level of predicted trust, on the other side, the negative marginal interaction effect is weakened. One possible conclusion to be drawn from this picture is that citizens with a strong confidence in their institutions – predicted by their personal characteristics – are less exposed to the risk of losing their fate in the face of high objective and subjective inequality. Those who have not a lot of confidence to start with, on the other hand, are even more discouraged if they (correctly) believe that their society has become too unequal.

Further Research

Having shown that inequality and its perception are negatively associated with organisational trust, it might be interesting to see if this linkage subsists for different subgroups of society. From a theoretical point of view, it might be advisable to apply measures of inequality retrieved from units smaller than the overall population. Since the comparison with the economic status of other individuals appears to influence our level of trust, a more accurate definition of this reference group seems to be necessary. The income inequality within a person's age-range might be more determinative for the individual's level of trust than the economic imbalances of the overall society. With this approach, at the same time, a common criticism of studies contemplating the inequality trust linkage could be overruled. It has been sceptically claimed that country specific cultural differences, un-related to inequality, are supposed to be the true drivers of trust. With the application of age-specific inequality measures, however, meaningful within-country comparisons would be accomplishable.

Table 1 Summary of Inequality and Trust across Countries

Country	Gini	Income Perception (1-4)	Trust in Government (1-10)
ISO 3166	Mean	Mean	Mean
AT	25.70	3.26	5.28
BE	26.40	3.32	4.04
BG	33.40	3.66	3.89
CY	29.50	3.61	4.70
CZ	25.10	3.52	3.57
DE	29.10	3.59	3.77
DK	26.90	2.85	5.50
EE	31.40	3.66	4.75
ES	33.00	3.44	3.76
FI	25.90	3.30	5.41
FR	29.90	3.49	3.86
GR	33.10	3.53	3.30
HU	24.70	3.71	4.81
IE	28.80	3.44	3.35
IT	31.50	3.22	4.22
LT	35.90	3.65	2.89
LU	29.20	3.29	5.95
LV	37.50	3.77	2.65
MT	27.40	3.23	4.53
NL	27.20	3.00	4.96
PL	31.40	3.54	3.15
PT	35.40	3.52	3.29
RO	34.90	3.62	2.44
SE	24.80	3.09	6.08
SI	22.70	3.72	3.22
SK	24.80	3.57	4.70
UK	32.40	3.29	4.11
Total	29.63	3.45	4.09

Source: Eurobarometer (355) 2009, EU-SILC 2009 and own calculations

Table 2 Effects on General Trust and Trust in Poverty Combat of Various Institutions

VARIABLES	General Trust				Trust in Poverty Combat				
	Government	Parliament	EU	Government	Local	NGOs	Religious	Private	Citizens
					Government		Institutions		
Income Perception	-0.644*** (0.187)	-0.380* (0.196)	-0.685*** (0.166)	-0.626*** (0.172)	-0.350** (0.164)	-0.624*** (0.171)	-0.414** (0.162)	-0.369** (0.163)	-0.143 (0.166)
Gini	-0.0946** (0.0374)	-0.0830** (0.0367)	-0.0542* (0.0287)	-0.0807** (0.0371)	-0.0497* (0.0291)	-0.0873*** (0.0317)	-0.0374 (0.0321)	-0.0215 (0.0266)	-0.0171 (0.0262)
Gini*Perception	0.00710 (0.00648)	0.00235 (0.00683)	0.0173*** (0.00568)	0.00801 (0.00589)	0.00637 (0.00557)	0.0220*** (0.00580)	0.0120** (0.00552)	0.00655 (0.00558)	0.00602 (0.00567)
2009 GDP per Capita (log)	-0.00561 (0.185)	0.301* (0.174)	-0.736*** (0.127)	-0.134 (0.191)	0.0355 (0.133)	0.192 (0.150)	-0.168 (0.158)	-0.0374 (0.111)	-0.0233 (0.104)
Age: <24 ("65+" omitted)	-0.345*** (0.106)	-0.349*** (0.110)	0.486*** (0.0909)	-0.0915 (0.0949)	-0.0523 (0.0893)	0.373*** (0.0944)	-0.232*** (0.0889)	0.0109 (0.0915)	0.0283 (0.0922)
25-34	-0.343*** (0.0823)	-0.201** (0.0849)	0.294*** (0.0717)	-0.248*** (0.0752)	-0.0692 (0.0706)	0.212*** (0.0738)	-0.286*** (0.0705)	0.00778 (0.0729)	-0.0390 (0.0728)
35-44	-0.298*** (0.0775)	-0.177** (0.0801)	0.183*** (0.0679)	-0.222*** (0.0711)	-0.0421 (0.0671)	0.185*** (0.0698)	-0.164** (0.0668)	-0.0233 (0.0692)	-0.0195 (0.0691)
45-54	-0.199*** (0.0747)	-0.122 (0.0774)	0.184*** (0.0655)	-0.146** (0.0685)	0.0482 (0.0647)	0.256*** (0.0673)	-0.149** (0.0644)	-0.0322 (0.0669)	0.0470 (0.0666)
55-64	-0.144** (0.0606)	-0.108* (0.0629)	0.0884* (0.0538)	-0.136** (0.0559)	-0.0631 (0.0531)	0.161*** (0.0552)	-0.112** (0.0528)	-0.107* (0.0547)	0.0790 (0.0547)
Male	-0.0263 (0.0347)	-0.0258 (0.0357)	0.0354 (0.0306)	0.00657 (0.0319)	0.0761** (0.0302)	0.167*** (0.0318)	0.199*** (0.0300)	-0.0117 (0.0307)	0.00124 (0.0312)
Education years: <18 ("no education" omitted)	-0.349* (0.188)	-0.0967 (0.200)	-0.170 (0.173)	-0.379** (0.170)	-0.164 (0.163)	-0.246 (0.176)	-0.686*** (0.173)	-0.307* (0.170)	-0.131 (0.170)
19-22	-0.188 (0.191)	0.0713 (0.203)	0.00140 (0.176)	-0.272 (0.174)	-0.0988 (0.166)	-0.151 (0.179)	-0.746*** (0.176)	-0.261 (0.173)	-0.0648 (0.173)
22+	-0.128 (0.190)	0.195 (0.202)	0.103 (0.176)	-0.257 (0.174)	-0.0399 (0.166)	0.0282 (0.180)	-0.543*** (0.177)	-0.351** (0.173)	-0.130 (0.173)
still studying	-0.110 (0.216)	0.290 (0.228)	0.129 (0.197)	-0.401** (0.197)	-0.0390 (0.188)	-0.123 (0.202)	-0.705*** (0.197)	-0.405** (0.194)	-0.0578 (0.195)
Marital status: (Re-) Married ("other" omitted)	0.132 (0.139)	0.101 (0.142)	0.220* (0.113)	-0.0820 (0.121)	0.0999 (0.113)	0.156 (0.117)	0.134 (0.112)	0.108 (0.114)	0.251** (0.114)
Single with partner	-0.0359 (0.144)	-0.0688 (0.147)	0.109 (0.117)	-0.235* (0.126)	-0.0690 (0.117)	0.230* (0.121)	-0.0560 (0.116)	0.0131 (0.118)	0.157 (0.119)
Single	0.0668 (0.136)	0.0708 (0.139)	0.189* (0.110)	-0.119 (0.118)	0.0871 (0.110)	0.266** (0.114)	0.0726 (0.109)	0.132 (0.111)	0.192* (0.112)
Divorced/Separated	-0.0601 (0.152)	-0.107 (0.155)	-0.0225 (0.123)	-0.333** (0.133)	-0.0780 (0.123)	0.121 (0.127)	-0.0684 (0.122)	0.0506 (0.125)	0.115 (0.125)
Widowed	0.175 (0.151)	0.178 (0.155)	0.245** (0.124)	0.0375 (0.132)	0.209* (0.124)	0.315** (0.128)	0.317** (0.123)	0.200 (0.126)	0.391*** (0.126)
Employment status: Self-employed ("student" omitted)	-0.0206 (0.0826)	-0.0535 (0.0852)	-0.0723 (0.0727)	0.0181 (0.0764)	-0.112 (0.0726)	-0.0949 (0.0755)	-0.155** (0.0719)	0.202*** (0.0734)	0.0874 (0.0751)
Managers	0.0257 (0.0773)	0.136* (0.0793)	-0.105 (0.0697)	0.00789 (0.0722)	-0.106 (0.0692)	0.112 (0.0748)	-0.0691 (0.0687)	-0.0587 (0.0701)	-0.0118 (0.0720)
Other whit collars	-0.0377 (0.0753)	0.00957 (0.0776)	-0.107 (0.0667)	-0.0859 (0.0696)	-0.0462 (0.0658)	-0.0432 (0.0689)	-0.165** (0.0656)	0.00437 (0.0675)	0.0973 (0.0683)
Manual workers	-0.144** (0.0688)	-0.142** (0.0713)	-0.172*** (0.0595)	-0.137** (0.0626)	-0.115** (0.0587)	-0.104* (0.0612)	-0.204*** (0.0586)	-0.0699 (0.0607)	0.0311 (0.0607)
House persons	-0.0233 (0.0809)	-0.0346 (0.0835)	-0.0994 (0.0702)	-0.00699 (0.0736)	-0.0554 (0.0691)	-0.0592 (0.0719)	0.135** (0.0687)	-0.0902 (0.0718)	-0.0708 (0.0710)
Unemployed	-0.166* (0.0896)	-0.136 (0.0933)	-0.119* (0.0713)	-0.203*** (0.0778)	-0.103 (0.0702)	-0.0891 (0.0725)	-0.0723 (0.0703)	-0.189** (0.0745)	-0.105 (0.0717)
HH finance outlook: Better ("the same" omitted)	0.223*** (0.0436)	0.189*** (0.0449)	0.152*** (0.0400)	0.200*** (0.0406)	0.121*** (0.0392)	0.0563 (0.0421)	0.0769** (0.0389)	0.224*** (0.0390)	0.140*** (0.0412)

Worse	-0.208*** (0.0479)	-0.168*** (0.0497)	-0.366*** (0.0391)	-0.405*** (0.0428)	-0.361*** (0.0382)	-0.296*** (0.0390)	-0.166*** (0.0384)	-0.290*** (0.0407)	-0.289*** (0.0386)
Poverty is...: Very widespread ("not at all widespread" omitted)	-0.827*** (0.110)	-0.778*** (0.113)	-0.315*** (0.102)	-0.797*** (0.105)	-0.590*** (0.105)	-0.147 (0.109)	-0.152 (0.102)	-0.228** (0.103)	-0.212* (0.109)
Fairly widespread	-0.433*** (0.101)	-0.390*** (0.104)	-0.0398 (0.0973)	-0.465*** (0.0985)	-0.321*** (0.101)	0.128 (0.105)	0.0107 (0.0974)	0.0226 (0.0970)	-0.0447 (0.104)
Not very widespread	0.0304 (0.102)	0.0946 (0.104)	0.233** (0.0977)	0.0449 (0.0991)	-0.0177 (0.102)	0.261** (0.105)	0.174* (0.0979)	0.0940 (0.0974)	-0.0334 (0.104)
Community area: Rural area or village ("large town" omitted)	-0.0625 (0.0429)	-0.0470 (0.0442)	-0.00154 (0.0374)	0.0715* (0.0393)	0.269*** (0.0370)	0.0400 (0.0390)	0.208*** (0.0368)	0.206*** (0.0379)	0.220*** (0.0383)
Small/middle town	0.0452 (0.0422)	0.0131 (0.0437)	0.0199 (0.0374)	0.122*** (0.0390)	0.139*** (0.0368)	-0.000314 (0.0387)	0.0845** (0.0366)	0.131*** (0.0378)	0.0612 (0.0378)
General trust in people: Tend not to trust ("tend to trust" omitted)	-1.079*** (0.0432)	-1.332*** (0.0445)	-0.610*** (0.0389)	-0.635*** (0.0401)	-0.661*** (0.0382)	-0.660*** (0.0406)	-0.508*** (0.0380)	-0.593*** (0.0386)	-1.302*** (0.0409)
Neither nor	-0.692*** (0.0404)	-0.827*** (0.0408)	-0.238*** (0.0384)	-0.244*** (0.0386)	-0.282*** (0.0378)	-0.291*** (0.0409)	-0.194*** (0.0374)	-0.249*** (0.0374)	-0.538*** (0.0411)
Satisfied with own life: Dissatisfied ("satisfied" omitted)	-0.695*** (0.0616)	-0.669*** (0.0648)	-0.512*** (0.0481)	-0.466*** (0.0526)	-0.449*** (0.0467)	-0.313*** (0.0477)	-0.259*** (0.0467)	-0.530*** (0.0504)	-0.315*** (0.0468)
Neither nor	-0.451*** (0.0438)	-0.470*** (0.0454)	-0.223*** (0.0375)	-0.247*** (0.0392)	-0.147*** (0.0364)	-0.178*** (0.0381)	-0.184*** (0.0366)	-0.234*** (0.0376)	-0.163*** (0.0377)
Observations	23,308	23,202	21,811	22,727	22,523	22,134	22,110	21,774	22,155
Number of groups	27	27	27	27	27	27	27	27	27
AIC	0.993	0.948	1.279	1.160	1.275	1.198	1.303	1.269	1.227

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: Eurobarometer (355) 2009, EU-SILC 2009 and own calculations

Table 3 Marginal Effects on General Trust and Trust in Poverty Combat of Various Institutions

	General Trust in...			Trust in Poverty Combat of...					
	Government	Parliament	EU	Government	Local Government	NGOs	Religious Institutions	Private Companies	Citizens
Model 1									
Perception	-0.0713*** (0.00366)	-0.0478*** (0.00360)	-0.0408*** (0.00478)	-0.0774*** (0.00423)	-0.0367*** (0.00477)	0.00344 (0.00462)	-0.0146*** (0.00483)	-0.0393*** (0.00467)	0.00629 (0.00467)
Gini	0.0284*** (0.00310)	0.0275*** (0.00306)	0.0141*** (0.00337)	0.0340*** (0.00321)	0.0133*** (0.00319)	0.0183*** (0.00304)	0.0339*** (0.00334)	0.0126*** (0.00348)	0.00260 (0.00321)
Model 2									
Perception	-0.104*** (0.0303)	-0.0578* (0.0301)	-0.155*** (0.0369)	-0.123*** (0.0337)	-0.0774** (0.0363)	-0.127*** (0.0348)	-0.0927** (0.0369)	-0.0792** (0.0360)	-0.0335 (0.0351)
Gini	0.0244*** (0.00480)	0.0263*** (0.00479)	-0.000113 (0.00567)	0.0283*** (0.00523)	0.00815 (0.00552)	0.00191 (0.00531)	0.0241*** (0.00567)	0.00766 (0.00565)	-0.00241 (0.00543)
Gini*Perception	0.00114 (0.00105)	0.000347 (0.00105)	0.00396*** (0.00127)	0.00157 (0.00116)	0.00140 (0.00123)	0.00448*** (0.00118)	0.00269** (0.00126)	0.00138 (0.00123)	0.00137 (0.00120)
Observations	23,308	23,202	21,811	22,727	22,523	22,134	22,110	21,774	22,155

Only selected marginal effects are displayed, the underlying model applies the same set of controls as in table 2.

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: Eurobarometer (355) 2009, EU-SILC 2009 and own calculations

Figure 1a) - Income Perception by Gini

Source: Eurobarometer (355) 2009, EU-SILC 2009 and own calculations

Figure 1b) - Trust in Government by Gini

Source: Eurobarometer (355) 2009, EU-SILC 2009 and own calculations

Figure 1c) - Trust in Government by Income Perception

Source: Eurobarometer (355) 2009, EU-SILC 2009 and own calculations

Figure 2a) - Interaction Effect after Logit for Trust in Government

Source: Eurobarometer (355) 2009, EU-SILC 2009 and own calculations

Figures 2a-i) - Interaction Effects after Logit

Source: Eurobarometer (355) 2009, EU-SILC 2009 and own calculations

Appendix

Main Variables

Variable: Income perception

Question: *"Nowadays in (OUR COUNTRY) income differences between people are far too large?"*,

Answer: 1 – Totally disagree, 2 – Tend to disagree, 3 – Tend to agree, 4 – Totally agree.

Variable: Trust in poverty combat of ...

Choices: The European Union, the (National) Government, regional or local authorities, NGOs and charities, religious Institutions, private companies, citizens themselves.

Question: *"For each of the following, please tell me if you tend to trust it or not with regard to their action in combating poverty."*

Answer: 0 – Tend not to trust it, 1 – Tend to trust it.

Variable: Trust in ...

Choices: The (National) Government, the (National) Parliament

Question: *"Please tell me how much you personally trust each of the following institutions using a scale from 1 to 10 where [1] means 'you do not trust the institution at all' and [10] means 'you trust it completely'."*

Other Variables⁵

Communitytype - Rural area or village, Small/middle town, Large town; educationage - categories of years spent in educational system;

employment - Self-employed, Managers, Other white collars, Manual workers, House persons, Unemployed, Retired, Students;

hhfinance - personal financial outlook - Better, Worse, The same;

maritalstatus - (Re-)Married, Single living with partner, Single, Divorced or separated, Widow, Other;

poverty - How widespread is poverty? - Very widespread, Fairly widespread, Not very widespread, Not at all widespread;

satisfaction (in life) - Dissatisfied, Neither nor, Satisfied;

trustinpeople - Tend not to trust, Neither nor, Tend to trust.

Technical Footnote

For the described analysis the software environment of STATA/SE 13.1 has been used. To perform the multilevel logit model the *'xtmelogit'* command has been used and the *'margins'* command for receiving the marginal effects. The *'inteff'* command has been applied for calculating and plotting the interaction effect.

⁵ If not specified otherwise, each category is represented by a dummy variable.

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