Subjective Perceptions of Inequality and Redistributive Preferences: An International Comparison

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Abstract

Views on income inequality and concomitant redistributive preferences are crucial to the design of tax and transfer systems. Although income distribution in Germany, France and Switzerland is very similar, opinions differ widely as to how critically income differences are viewed. This is hardly surprising given that when countries are compared there is almost no connection between the actual distribution of incomes and subjective evaluations of income differentials. In fact, many nationalities assume that the structure of their society is considerably less equitable than it really is. Thus, a factor which far better explains views on distribution is the subjective perception of inequality within a society. Similarly, redistributive preferences are influenced less by actual distribution than by perceived inequality.

Keywords: income distribution, inequality perception, redistributive preferences

JEL Codes: D31, H53, C81

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I. Introduction

According to the well-known median voter theorem (Meltzer/Richard, 1981) individual preferences for redistribution are determined by the individual income positions. If the decisive voter disposes of an income below the average income of the society he votes for more welfare state redistribution because he benefits from progressively financed welfare programs himself. The further the median income is below average income, the higher should be expected public redistribution on the macro level. Empirical tests of this predicted positive relationship between inequality and redistribution reveal mixed results, though. Some prominent country examples constitute obvious contradictions: Although income inequality is high in the US, welfare state redistribution is relatively low. In comparison, income inequality in European countries is substantially lower. Still, the European welfare state programs are far more generous. Bénabou and Ok (2001) extended the median voter model and added mobility expectations as further explanatory variable for redistributive preferences. Considering the possibility of upward mobility in an empirical model can indeed explain the small redistributive capacities in the US (Alesina/La Ferrara, 2005). However, Germany and Switzerland share more or less the same degree of income inequality and at the same time similar mobility indicators. Nevertheless, these countries reveal significant differences in the size of state redistribution (Zweifel/Neustadt, 2013).

Beside cross-country studies, also individual determinants of subjective preferences for redistribution are analyzed. Cruces et al. (2013) show by means of a survey experiment that misperceived income positions may be responsible for biased redistributive preferences. If, for example, Americans systematically overestimate their position in the income distribution, they may, on the other hand, underestimate the degree of inequality. Indeed, Norton and Ariely (2011) found that Americans have a far too optimistic view of the degree of inequality in their country. However, the distribution of self-assessed positions in the society in the US, Germany and Switzerland is very similar (Engelhardt/Wagener, 2014) and thus fails to explain differences in redistribution between these three countries.

In addition to individual factors such as one´s own income position, also macro-level factors such as social inequality may be part of the individual utility function and thus explanatory factors of the demand for redistribution. For instance, social norms or historical factors may be associated with a different degree of acceptance of inequalities and thus different demands

for redistribution (Alesina/Giuliano, 2010). Correspondingly, misperceived levels of inequality can also result in biased preferences for redistribution. We analyze in how far country-differences in the critical evaluation of inequalities and concomitant redistributive preferences can be explained by biased perceptions of social inequality.

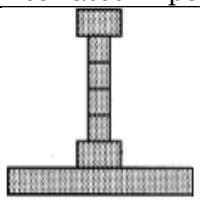
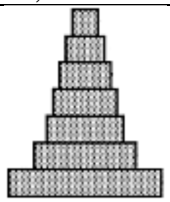
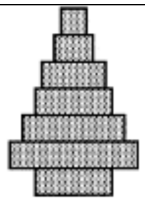
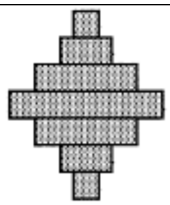
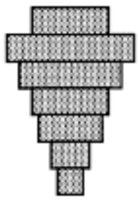
II. Data and Concepts

The data on the subjective perception of inequality and redistributive preferences come from the Social Inequality module of the International Social Survey Programme (ISSP). The ISSP is a continuing annual programme of cross-national collaboration on surveys covering topics important for social science research. The specific module on social inequality is only collected approximately every ten years, for the last time in 2009. In most countries, there were about 1,000 respondents. Social science research often refers to ISSP data to analyze questions of redistributive preferences (e.g. Lübker, 2007; Kenworthy/McCall, 2008); but also the economic literature increasingly uses this data source on subjective values on inequality and redistribution (Corneo/Grüner, 2002; Engelhardt/Wagener, 2014). The analysis is restricted to those countries, for which micro data on income distribution is also available. This results in a sample of 23 European countries and the USA.

The variable of interest is based on question 14a on the perceived type of society. Table 1 presents the exact wording of the question and the responses of the different countries in 2009. Accordingly, in Germany, 54.2 percent of the population think that Type A or Type B describe best the situation of the German society. Thus, the majority of the Germans believe that the bulk of the German population lives rather at the bottom of the society. In France, the consent for Type A or Type B is even higher: 70 percent of the respondents assume that "most people live at the bottom". Therewith, the French perception of the type of the society is comparable with the results of the Eastern European countries. The results in Switzerland and the Scandinavian countries display a different pattern. Here respondents view the majority of the society in the middle.

In addition to the type of society, the analysis also applies an indicator of critical views on income differences. The exact wording of the question with the value judgement on inequality reads as follows: "Differences in income in [country] are too large". Respondents were asked to record their opinion in five answer categories from "strongly agree" to "strongly disagree".

Table 1:
Perceived type of society
Response rates in percent, 2009

					
	Type A	Type B	Type C	Type D	Type E
	A small elite at the top, very few people in the middle and the great mass of people at the bottom.	A society like a pyramid with a small elite at the top, more people in the middle, and most at the bottom.	A pyramid except that just a few people are at the bottom.	A society with most people in the middle.	Many people near the top, and only a few near the bottom.
AT	17.4	26.5	31.0	22.6	2.5
BE	6.8	34.5	23.5	32.1	3.0
BG	63.5	27.2	5.5	3.3	0.5
CY	4.5	24.0	57.4	13.0	1.1
CZ	30.9	35.1	18.5	13.5	2.1
DK	1.6	10.7	25.5	58.7	3.5
EE	32.6	46.6	9.6	9.8	1.5
FI	6.9	23.7	32.6	35.6	1.2
FR	16.4	53.6	16.3	12.1	1.6
DE	18.8	35.4	23.0	18.6	4.2
HU	56.6	32.3	6.0	3.7	1.4
IS	9.7	18.6	19.5	47.6	4.5
IT	32.4	41.0	12.8	11.7	2.1
LV	68.3	20.2	5.4	2.4	3.7
NO	2.1	10.8	23.6	56.4	7.1
PL	37.1	33.0	13.6	12.6	3.7
PT	40.8	36.2	12.5	6.5	4.0
SK	43.6	39.1	8.5	7.4	1.4
SI	26.4	31.5	27.2	12.3	2.7
ES	16.8	41.2	21.5	17.0	3.5
SE	7.1	23.3	29.8	37.9	1.9
CH	6.7	24.8	25.0	39.8	3.7
UK	14.9	41.9	18.8	20.9	3.5
US	17.1	38.9	15.0	26.0	2.9

ISSP, 2009, Question 14a: These five diagrams show different types of society. Please read the descriptions and look at the diagrams and decide which you think best describes [country].

Source: ISSP (2009)

In line with the existing literature, the question "It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes" is used to measure the public support for redistribution. Obviously, this

questionnaire item only partially reveals true preferences for redistribution. First, additional costs of redistribution such as tax increases are not considered. Second, the assumed reference point of the size of redistribution in mind may differ across individuals. Still, this is the best possible data source to analyze the postulated relationship between inequality and redistributive preferences (Kenworthy/McCall, 2008).

Subjective inequality measure

The displayed results in Table 1 show that the perceived types of society differ quite a lot across countries. To compare the different views on the structure of society across countries and with the actual income distribution, the response rates for the five diagrams are summarized into one single diagram. Therefore, we assume that the bars in each diagram represent different population shares in seven societal classes. In order to aggregate all responses to a single diagram, first the relative (area) size of each bar is weighted by the share of respondents who have chosen the respective diagram. Second, the sum of the weighted shares builds a new bar for each of the seven classes – all averaged bars together add up to the new aggregated diagram. Class 1 at the bottom hereby represents the lowest part of the distributional scale, class 7 the top of the society. Examples of the resulting new diagrams are illustrated in Figure 1 to 6.

In a next step, we interpret the different classes as an ordinal scale ("payoffs" from one to seven) and compute different distributive measures such as the Gini coefficient. The proportionate share of the scale of one class is then equal to the usual income share of the common Gini coefficient. By the concept of the Lorenz Curve we use the population and "payoff" shares to compute an unstandardized Gini coefficient which we interpret as a measure of subjectively perceived inequality. The lower the Gini coefficient, the smaller is the degree of perceived inequality in the society. Beside this subjective Gini coefficient we also derive mean-median-ratios on the basis of the scale from one to seven, which might be more intuitive. Engelhardt and Wagener (2014) similarly compute mean-median-ratios on the basis of self-assessed positions in the society on a horizontal scale from 1 = bottom to 10 = top.[1]

[1] Note that this mean-median-ratio of the self-positioning in the society does not reflect the views of the respondents on inequality in the society – since they make only a judgement about their own position. It is a common finding in social science that individuals are more optimistic about their own situation rather than the situation of the society. According to the ISSP 2009, for instance, more than 60 percent of the Germans classify themselves in the upper half of the horizontal scale.

Actual income distribution

In order to compare the perceived inequality in a society with the actual distribution of income, we also divide the population into seven income classes. The data for the majority of countries come from the household survey of the European Union Statistics on Income and Living Conditions (EU-SILC) of the year 2010. Since the income reference period refers to the previous year (i.e. 2009), the data corresponds to the information on the perceived type of society from the ISSP. Only income data for Switzerland refers to the year 2010 because equivalent data for the year 2009 were not available. Data for the US is based on the Cross-National Equivalent File (CNEF) of the Panel Study of Income Dynamics of the year 2009. Minor variations in the observed time period do not matter within this analysis because the argumentation focuses on level differences between countries. In comparison, small differences across a few years are negligible.

As it is common in distributional analysis, the classification is based on disposable incomes, i.e. market incomes (wages and salaries, income from self-employment and capital incomes) less taxes and social insurance contributions plus social benefits and public pensions. In line with the inequality measures published by Eurostat, imputed rents are not considered. We use household equivalent incomes to compensate for different household structures and possible economies of scale within households. For each person, the equivalent (per-capita) disposable income is its household net income divided by the equivalent household size according to the modified OECD scale, which assigns a weight 1.0 to the head of household, 0.5 to every household member aged fourteen or older and 0.3 to each child aged less than fourteen.

Obviously, there are a number of possibilities to divide the population into seven income classes. Here, we basically apply the definition developed in a former comprehensive analysis of the German middle class (Niehues et al., 2013). This study first demarcated the population into socio-cultural groups, using predominantly education- and occupation-related criteria. In a second step, income classes were built on the basis where these socio-cultural groups were located in the income distribution. According to this definition, the lowest class (class 1) covers all individuals with an equivalent net income below 60 percent of median income of the total population. Therefore, the demarcation of the lowest group is equal to the standard definition of the relative poverty risk rate. The so-called lower middle-income class ranges

from 60 to 80 percent of median income and defines the second lowest class (class 2). The middle-income class is split up into two groups (class 3 from 80 to 110 percent and class 6 from 110 to 150 percent of median income). Similarly, the upper middle-income class is divided into two groups at 200 percent of median income (class 5 from 150 to 200 percent and class 6 from 200 to 250 percent of median income). Thus, according to the "richness"-definition of Eurostat, the group of the rich here already begins with the sixth income class. The richest group (class 7) begins with an income of 250 percent of median income. The demarcation at 250 percent of median income more conforms to the socio-cultural criteria of the rich (Niehues et al., 2013).

Obviously, the demarcation of classes remains somewhat arbitrary – as it is the case with the definition of the relative poverty risk.[2] However, the demarcation of single groups is not in the focus of this analysis. The intention of the definition of these seven income classes is basically the graphical illustration of the density function of incomes. We use a relative definition with respect to median income because most inequality measures (such as the Gini coefficient) follow a relative view on income differences. However, we also separate the poorest 99 percent of the population into seven income intervals – the richest percent of the population is then added to the top income class. The results are illustrated in Figure A.2 in the Appendix. In contrast to the classification relative to median income, this results in considerably smaller top income classes in all countries, and a smaller lowest class in most countries.[3] Despite this completely different approach of defining income classes, the general country differences regarding biased inequality perceptions still remain. Later on, when investigating correlations between different indicators, we employ the regular Gini coefficient of income inequality to represent the shape of the income distribution.

III. Perceived inequality versus actual income distribution

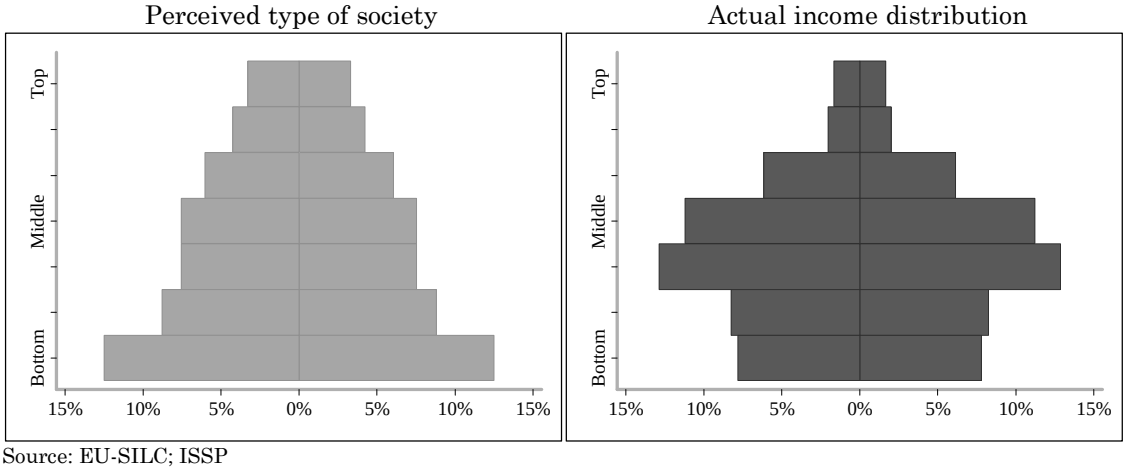
In the following, we present and explain some country examples with striking differences in perception and reality. The corresponding diagrams of perceived versus actual inequality for the further countries can be found in Figure A.1 in the Appendix. The merging of the

[2] Of course, different demarcations of income classes go along with different deviations between perceived inequality and actual income inequality. Though, the general differences between countries persist regardless of the chosen cutting points.

[3] Note that the thresholds for the lowest income class differ extremely across countries. Whereas the cutting point between the lowest and second lowest class in the US is equal to 2.102 international dollar (purchasing power adjusted), it only amounts to 332 international dollar in Hungary.

perceived types of society for Germany is illustrated on the left-hand side of Figure 1. In line with the previous observation from Table 1 that the majority of Germans assume most people at the bottom of the society, the lowest class displays with 25 percent the largest population share. The volume of the above bars is becoming gradually smaller. Altogether, the perceived type of society resembles a pyramid, which corresponds to the type of society with the highest response rate (Type B) in Table 1. On the right-hand side of Figure 1, the perceived type of society is contrasted with the division of the society into seven income classes. The lowest perceived class on the left-hand side is substantially larger than the relative income poverty risk in Germany (15.6 percent), which represents the lowest income class. The largest population shares can be localized in income classes 3 and 4 – and therefore in the middle-income class in the strict sense (i.e. the population with a disposable income between 80 and 150 percent of median income). A total of nearly 50 percent of the German population belongs to this middle-income class. Coming to the top-income classes, the distribution is narrowing. Clearly less than one-tenth of the population disposes of an income above 200 percent of median income and can be classified as "rich" according to a broad definition of "richness" (7.4 percent).[4]

Figure 1:
Perceived inequality and actual income distribution in Germany
Population shares in seven societal [income] classes in percent, 2009



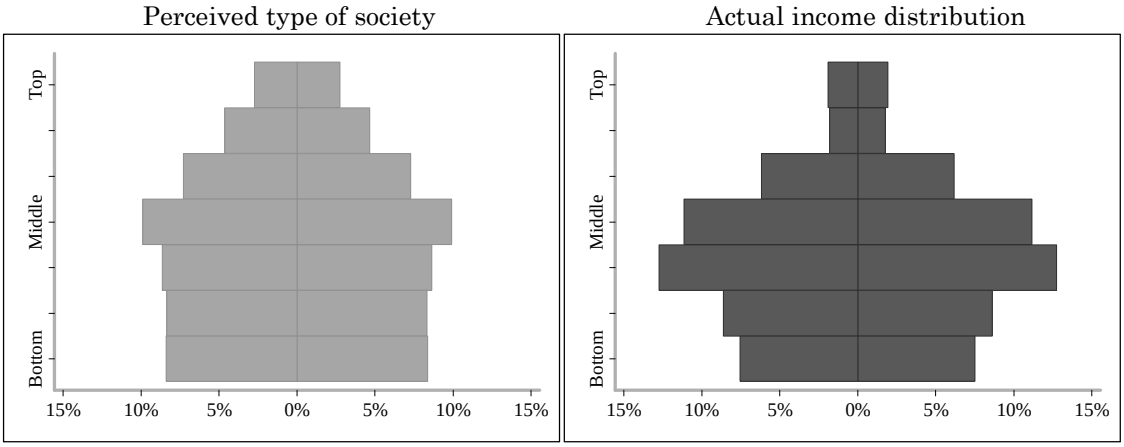
Source: EU-SILC; ISSP

The different shapes in Figure 1 show that although the majority of the population is assumed in the lower part of the society (see Table 1), according to the income distribution

[4] Note that the overestimation of the top-income classes partly results from the relatively large area of the highest class across all five types of society illustrated in Table 1.

the bigger part of the population is situated in the middle income classes. The finding that the majority of the German population belongs to the middle income class does not depend on the specific demarcation chosen here – and beyond, it is not dependent on income as demarcation criteria. Basically all social class studies for Germany share the result that the majority of the population classifies as traditional middle class. Generally, if the society is demarcated on the basis of socio-cultural criteria or self-assessment, the size of the German middle class even increases (BMAS, 2013, p. 327).

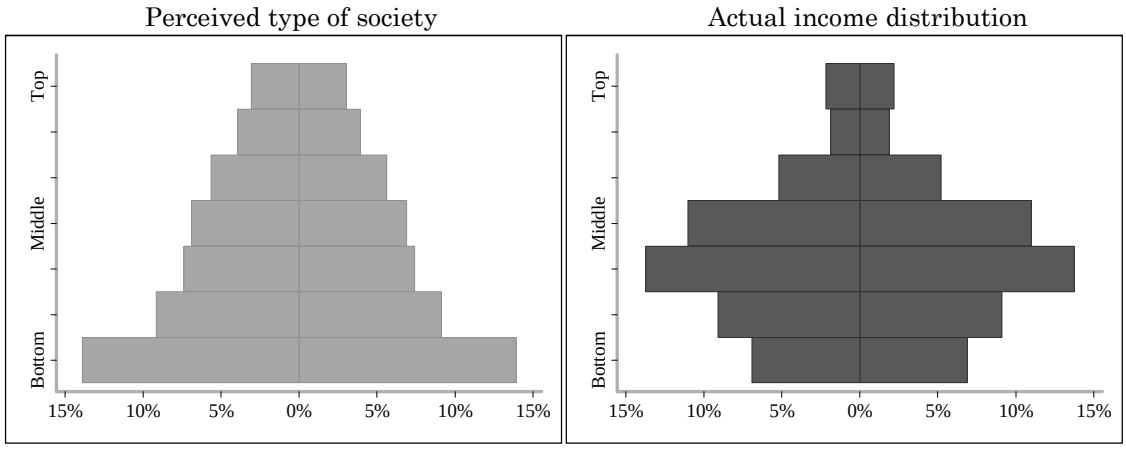
Figure 2:
Perceived inequality and actual income distribution in Switzerland
Population shares in seven societal [income] classes in percent, 2009



Disposable incomes for Switzerland relate to the year 2010.
Source: EU-SILC; ISSP

Figure 2 illustrates the perceived inequality in comparison with the actual income distribution in Switzerland. Table 1 has already revealed that the agreement on the type of society in Switzerland substantially differs from the German response behavior. Type D – and therefore a typical middle class model – attained the highest response rate in Switzerland. Accordingly, the population shares of the middle classes are larger than in Germany, when summarizing the five types of society into one diagram (left-hand side of Figure 2). Nevertheless, almost 50 percent of the population views the Swiss society rather as Type B or Type C (see Table 1) which results in still relatively voluminous lower classes. The obvious differences in the perceived inequality of the society in Germany and Switzerland are by no means reflected in the actual distribution of income: The population shares in the seven income classes are nearly of the same size in both countries (right-hand side of Figure 2). The similar distribution of income is also reflected in the Gini coefficients of income inequality in Germany (0.289) and Switzerland (0.297).

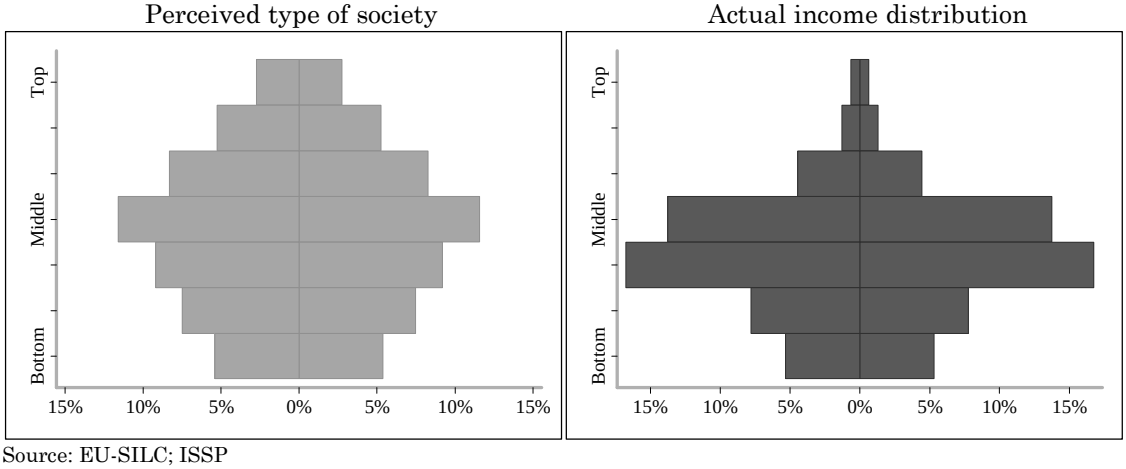
Figure 3:
Perceived inequality and actual income distribution in France
Population shares in seven societal [income] classes in percent, 2009



Source: EU-SILC; ISSP

With a Gini coefficient of 0.297 France is also characterized by a similar degree of income inequality as Germany and Switzerland. Correspondingly, the population shares in the seven income classes on the right-hand side of Figure 3 resemble the German and Swiss results. Only the relative poverty risk rate is somewhat smaller, on the other hand the lower middle-income class is a bit larger than in Germany. In spite of the lower poverty risk rate, the French assume even more people in the lower classes of the society than the Germans. The higher response rates for Type A and Type B result in a population equivalent of 28 percent in the lowest class of the perceived society.

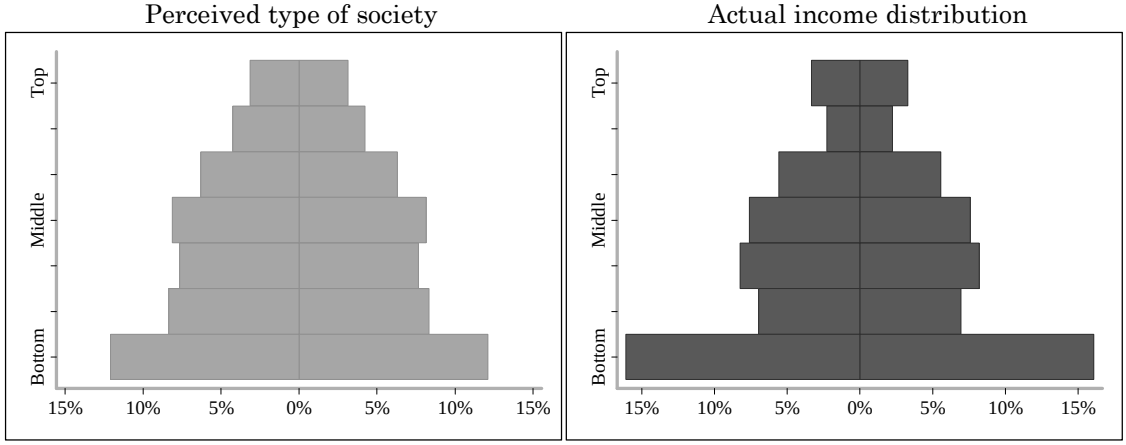
Figure 4:
Perceived inequality and actual income distribution in Norway
Population shares in seven societal [income] classes in percent, 2009



Source: EU-SILC; ISSP

So far, we described three countries with a very similar distribution of disposable incomes. Figure 4 illustrates perceived and actual income inequality in Norway. In our country sample, Norway is the country with the lowest degree of income inequality (Gini coefficient of 0.233). The comparatively equal distribution of incomes also becomes evident from the allocation of the population into the seven income classes. The lower income classes are substantially smaller and more than 60 percent of the population belongs to the middle-income class in the strict sense. Only a negligible share of the population can be classified as relatively rich. In contrast to the previous countries, the illustration of the perceived type of society on the left-hand side reveals that the Norwegians have a comparatively realistic view of their society. They view their society correctly as a typical middle class model.

Figure 6:
Perceived inequality and actual income distribution in United States
Population shares in seven societal [income] classes in percent, 2009



Source: PSID; ISSP

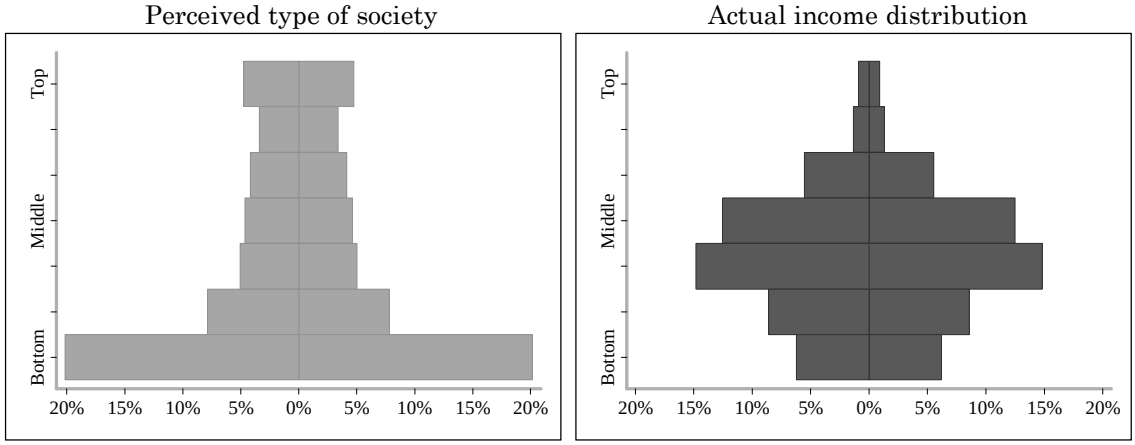
With a Gini coefficient of 0.417 the US represents the other extreme of income inequality in the observed country sample. This is also clearly reflected in the illustration of income classes (right-hand side of Figure 5). Nearly one third of the population has a disposable income below 60 percent of median income.[5] Simultaneously, the US reveals the largest share of income rich: Almost 7 percent of the population dispose of an income above 250 percent of median income. In spite of this large difference in measured income inequality, the perception of the society (left-hand side of Figure 5) rather resembles the perceived inequality

[5] Note that non-monetary transfers are not sufficiently covered in the PSID data. Therefore, poverty and inequality measures for the US might be overestimated.

in Germany (left-hand side Figure 1). More precisely, the US is the only country in our sample with a more optimistic perception of the society than suggested by the actual distribution of incomes. The finding that the Americans view the inequality of their society more optimistic than it actually is, is not new. According to subjective estimations, the wealth share of the richest quintile is equal to 59 percent – in reality it is almost 84 percent (Norton/Ariely, 2011).

At last, Figure 6 contrasts perceived societal inequality with the actual distribution of income for an Eastern European country example: Hungary. The left-hand side diagram of the perceived type of society looks virtually like the illustration of Type A in Table 1. This is not surprsing since the majority of Hungarians (56.6 percent) view their society as "a small elite at the top, very few people in the middle and the great mass of people at the bottom" (ISSP, 2009, question 14a). Further 32.3 percent of the Hungarians classify their society as a pyramid, thereby also assuming most people "at the bottom". This dramatic view of the societal structure is by no means reflected in the actual distribution of incomes. Hungary is characterized by one of the lowest poverty risk rates (12.4 percent) and also by a very low Gini coefficient of income inequality (0.24). Therefore the illustration of the actual income distribution on the right-hand side of Figure 6 rather resembles the previous example, Norway.

Figure 6:
Perceived inequality and actual income distribution in Hungary
Population shares in seven societal [income] classes in percent, 2009



Source: EU-SILC; ISSP

IV. Evaluation of income differences

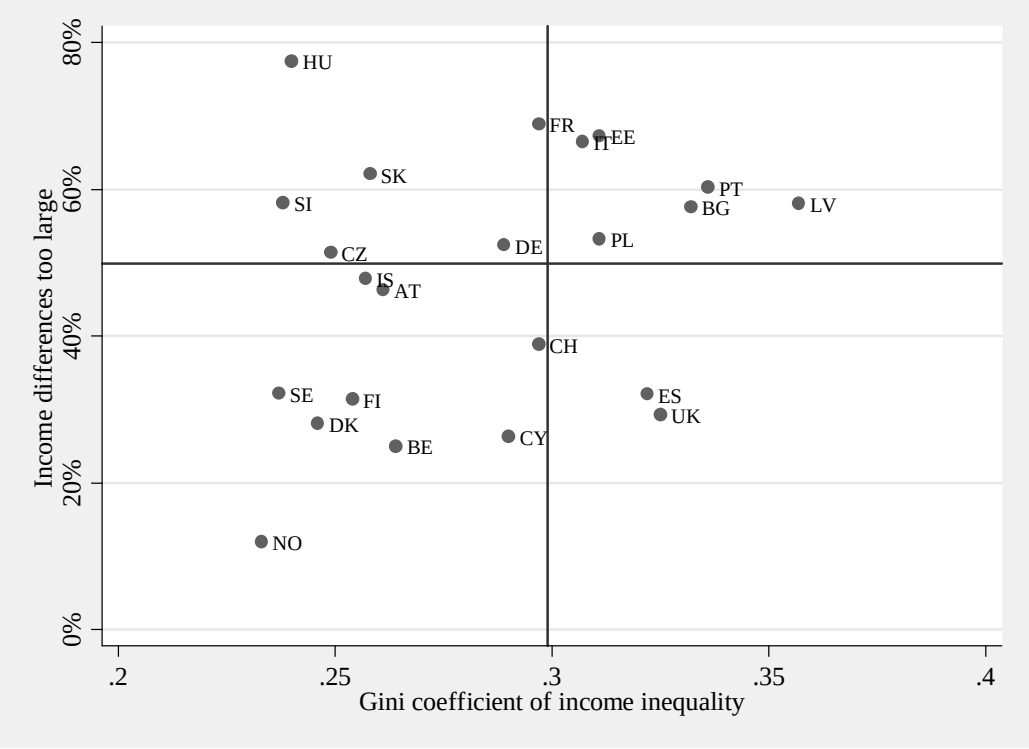
Independent from the fact that Germany, France and Switzerland share more or less exactly the same degree of measured income inequality, they differ considerably as to how critically income differences are viewed. According to the ISSP 2009, more than half of the Germans strongly agree that differences in income are too large. The French view their income distribution even more critical: 69 percent of the French population regards income differences as far too large. Differently, in Switzerland, people are substantially less skeptical about income differences. The missing link between actual inequality and its assessment is not specific to this set of three countries. If the evaluation of income differences in the observed 23 European countries is contrasted with the actual Gini coefficients of income inequality, we can hardly observe any relationship (Figure 7): The actual inequality of disposable incomes can only explain 7 percent of the cross-country differences in critical views on income differences. The correlation coefficient of these two indicators is only 0.26 and statistically insignificant. One possible explanation of this observation could be that the respondents rather think of market incomes before taxes and transfers when judging about income differences. Though, the R-squared of a regression of the Gini coefficients of market incomes on the critical views on income differences is also below 8 percent, the correlation coefficient equals 0.28, respectively.

In Figure 7 we only consider the share of respondents who strongly agree that income differences in their country are too large. Sometimes, the sum of those who strongly agree and those who just agree is employed as dependent variable (Lübker, 2007). In this case, the fraction of explained variance increases to nearly 20 percent, the correlation coefficient to 0.44. However, if we look at the sum of both answer possibilities, the variation across countries almost vanishes – in far more than half of the countries the share of those who strongly agree and those who agree that income differences are too large is higher than 80 percent. If we employ market incomes as independent variable the fraction of explained variance is still close to zero.

In particular the Eastern European countries such as Hungary, Slovenia as well as the Czech and Slovak Republic emerge as countries which do not fit into the positive relationship between the critical evaluation of income differences and actual income inequality. These countries are characterized by a well below-average income inequality. But, still, the

inhabitants of these countries view the income differences extremely critical. In Hungary, 77.5 of the respondents strongly agree that income differences are too large, further 19.6 percent agree on this. It may be the case that due to their socialist background these countries view already small income differences much more critical than other countries.
On the other hand, there are countries such as Spain and the United Kingdom which reveal an above-average level of income inequality but the population is not very concerned about the income discrepancies. The US can also be categorized into this group. With its Gini coefficient of 0.417 it is an extreme outlier in this country sample, though. If we add the US to the bivariate regression between the evaluation of income differences and actual income inequality, the correlation between the two indicators even becomes weaker.

Figure 7:
Evaluation of income differences and actual income inequality
2009

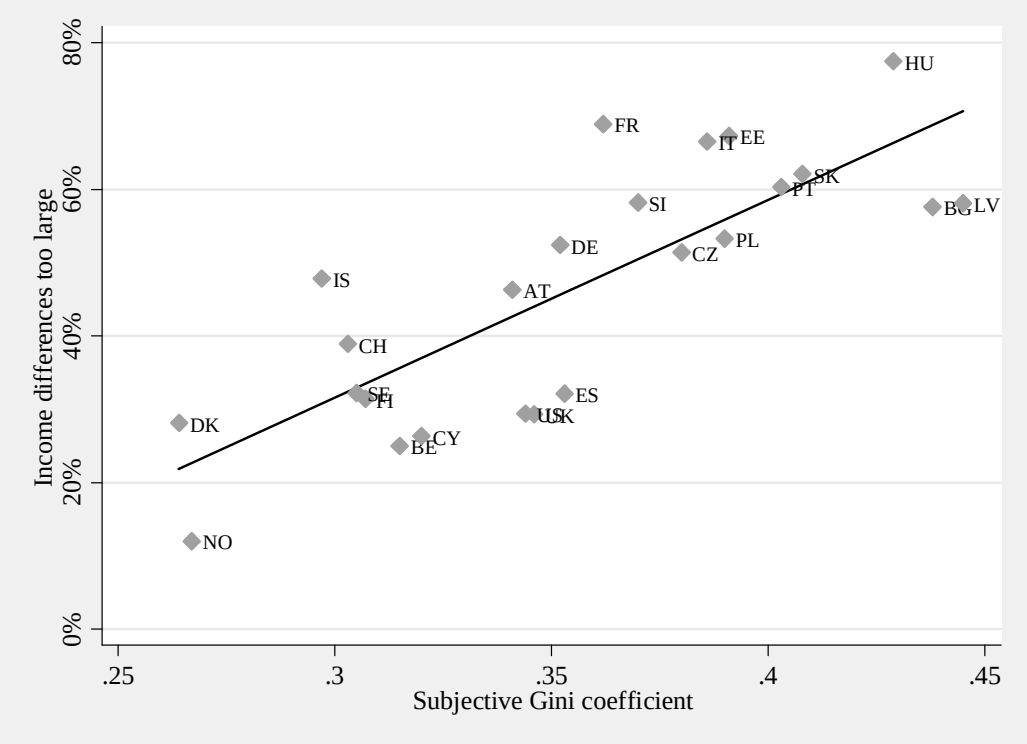


The Gini coefficient for Switzerland refers to disposable incomes of the year 2010. The added lines represent the population-weighted averages.
Source: EU-SILC; ISSP

In Figure 8 we plot the evaluation of income differences against our newly developed indicator of perceived inequality (the "subjective Gini coefficient"). In contrast to the previous scatterplot we can directly observe a positive relationship between the two indicators. This is

also reflected in the resulting R-squared: The degree of perceived inequality can explain almost 65 percent of the variation in the critical views on income differences. Correspondingly, the correlation coefficient is 0.81 and statistically highly significant. The fraction of explained variance as well as the correlation coefficient even slightly increase if we also add the share of those respondents who "only" agree that income differences are too large. Now, the significant relationship even persists if we include the US. For in the US actual income inequality is high, but the degree of perceived inequality is substantially lower and also, the critical evaluation of income differences.

Figure 8:
Evaluation of income differences and perceived inequality
2009



Source: EU-SILC; ISSP

From the comparison of Figure 7 and Figure 8 we can derive two insights: On the one hand, the bivariate correlations provide some evidence that the critical evaluation of income differences is nearly completely independent from the actual inequality of the income distribution. On the other hand, a correlation coefficient of more than 0.80 is an indicator of the goodness of our newly developed measure of perceived inequality. The aggregation of response rates for the different types of society from Table 1 thus seems to provide a valid way to adequately illustrate the perception of the society by one single measure. In addition,

the strong correlation supposes that the partition of the society into an abstract "top" and "bottom" is generally strongly affected by the assumed distribution of income – since the evaluation question explicitly asks about income differences rather than wealth or other status differences. The correlation results remain robust if we employ a mean-median-ratio rather than the subjective Gini coefficient.

V. Perception of inequality and redistributive preferences

Having validated the newly developed measure of subjective inequality, we test how it performs in regressions on subjective preferences for the demand of redistribution. First, we test the effect of the traditional Gini coefficient of income inequality on subjective redistributive preferences (Table 2). The first two columns clearly indicate that income inequality measured by the Gini coefficient does not have any statistically significant effect on the share of those how demand (more) redistribution. If we rather use the measure of perceived inequality, the effect is statistically highly significant. The subjective Gini coefficient already explains 56 percent of the variance in redistributive preferences across countries. Obviously, due to the small sample size it is not possible to estimate a comprehensive regression model. Still, we can investigate if the significant influence of the subjective Gini coefficient persists if we add some further control variables which might have an effect on redistributive preferences. The selection of control variables is similar to the choice of independent variables in Engelhardt and Wagener (2014). We incorporate the logarithmic GDP as indicator for the standard of living in a country, the share of those aged older than 64 and an openness indicator. Model IV shows that the impact of the subjective inequality measure nearly remains unchanged if the control variables are added to the model. In addition, a higher standard of living is associated with lower preferences for redistribution. Standardized regression coefficients reveal that the impact of the subjective inequality indicator exceeds the influence of the GDP measure. A higher share of elderly reveals the expected positive impact on redistributive preferences. Like in Engelhardt and Wagener (2014), the openness indicator does not show any statistical significant effect. Adding further control variables such as the share of population aged younger than 15 or different unemployment indicators does not add any additional explanatory power regarding the variation of redistributive preferences across countries. All effects persist if we exclude the US from the regression model.

Table 2:
Determinants of redistributive preferences
Dependent variable: perceived inequality (subjective Gini coefficient), 2009

	Model I		Model II		Model III		Model IV	
	Coeff.	T-Stat.	Coeff.	T-Stat.	Coeff.	T-Stat.	Coeff.	T-Stat.
Subjective Gini coefficient	–	–	–	–	2,061**	5,26	1,772**	4,88
Actual Gini coefficient	–0,004	–0,01	0,599	0,94	–	–	–	–
GDP per capita (logarithmic)	–	–	–0,040*	–2,23	–	–	–0,024*	–2,18
Share aged older than 64	–	–	0,286*	2,54	–	–	0,018*	2,30
Openness indicator[1)]	–	–	–0,010	–1,51	–	–	–0,006	–1,42
Constant	0,329	1,70	0,766	1,81	–0,404**	–2,88	0,064	0,20
R-Squared	0,000	–	0,350	–	0,557	–	0,698	–

[1)] Foreign direct investments as share of GDP; ** $p < 0,01$, * $p < 0,05$, $n = 24$.
Source: EU-SILC, ISSP, PSID; World Development Indicators

The results of this simple regression may provide a new explanation why the expected positive relationship between income inequality and redistributive preferences is rarely found. Though, we might only expect an effect from the level of income inequality, if the population perceives the correct level of inequality. The politico-economic mechanism in how far redistributive preferences indeed result in higher welfare state redistribution is not part of this paper. Admittedly, in this cross-sectional sample, we do not find any significant correlation between redistributive preferences and effective redistribution[6], neither do we find a relationship between redistributive preferences and the share of social expenditures. However, this is not surprising, since countries with comparatively high levels of public redistribution – as the Scandinavian countries for instance – are characterized by a very small level of income inequality, a small level of perceived inequality and low redistributive preferences, respectively. Causal effects between the perception of inequality and the level of effective redistribution may only be identified by means of complex panel models. Due to the

[6] As measured as the difference between the Gini coefficient of market income inequality and the Gini coefficient of disposable income inequality.

lack of adequate data on subjective inequality over time, such analyses cannot be performed, yet.

VI. Conclusion

A simple bivariate correlation based on ISSP data reveals that there is basically no relationship between the actual distribution of incomes and the critical views on income differences across countries. But, similar levels of inequality may be perceived differently in different societies. In contrast to the actual level of income inequality, a newly developed measure of perceived inequality ("subjective Gini coefficent") can explain a large fraction of the variation in critical views on income differences. Likewise, redistributive preferences are strongly correlated with the level of perceived inequality. In addition, the standard of living within a country reveals a significant effect on redistributive preferences: Eastern European countries such as Hungary and Slovenia display small levels of actual income inequality, though, the population assumes a very unequal type of society and reveals strong preferences for redistribution, respectively. If this effect is rather causally related to the socialist background of these countries, cannot be identified within this simple regression model.

Still, our results may not only provide an explanation for the low levels of welfare state redistribution in the US, but also for the redistributive differences in Germany in Switzerland: The latter share similar levels of actual income inequality, but at the same time differences in the degree of perceived societal inequality. Beyond, the results suppose that small changes in actual income inequality may not immediately result in corresponding changes of perceived inequality and thus, critical views on income differences. The analysis hints at the importance of biased inequality perceptions for critical views on income differences and redistributive preferences. Further research may focus on the reasons for the observed biased perceptions of inequality in societies. Furthermore, it might be of interest to investigate individual determinants of the choice of the perceived type of society.

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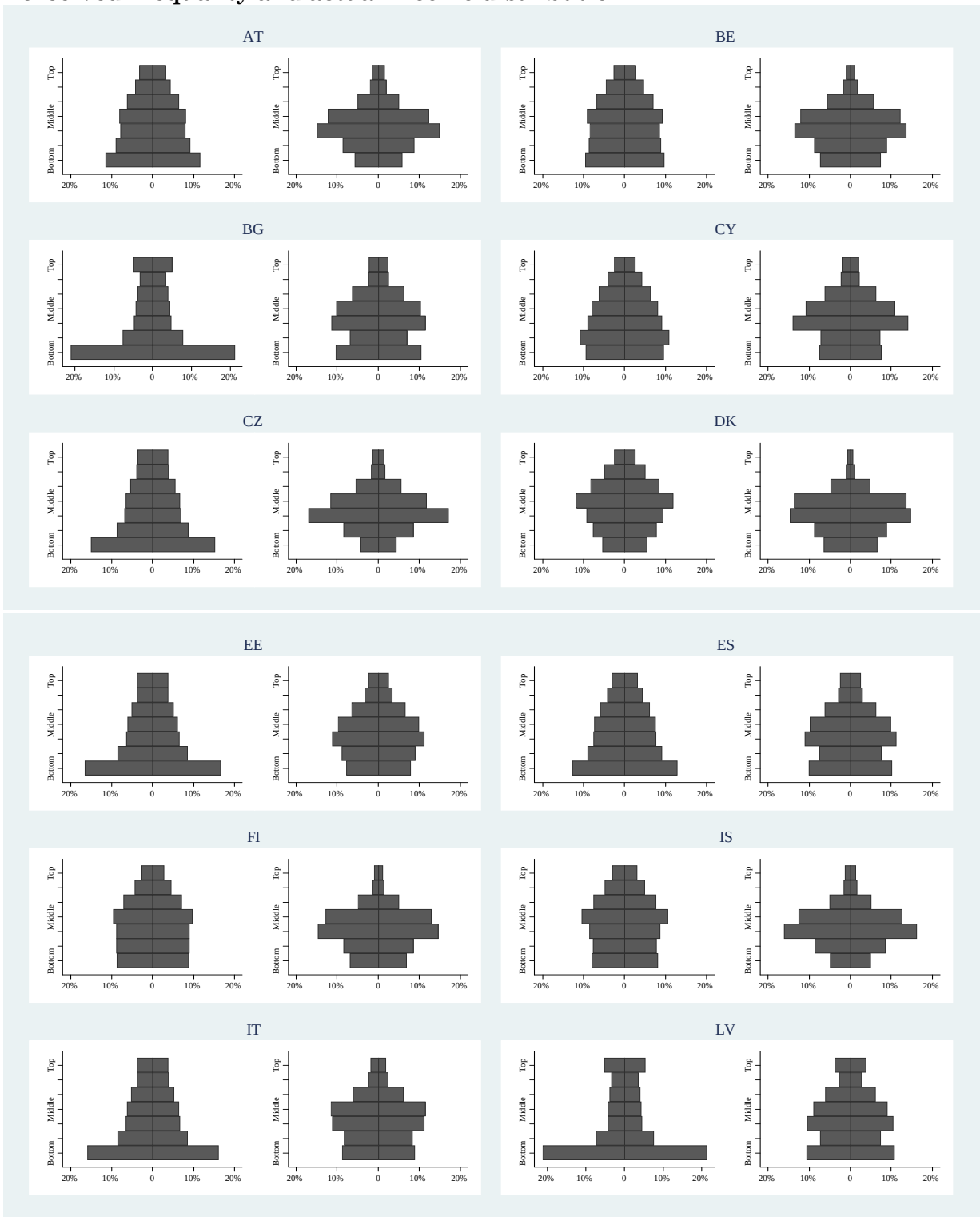
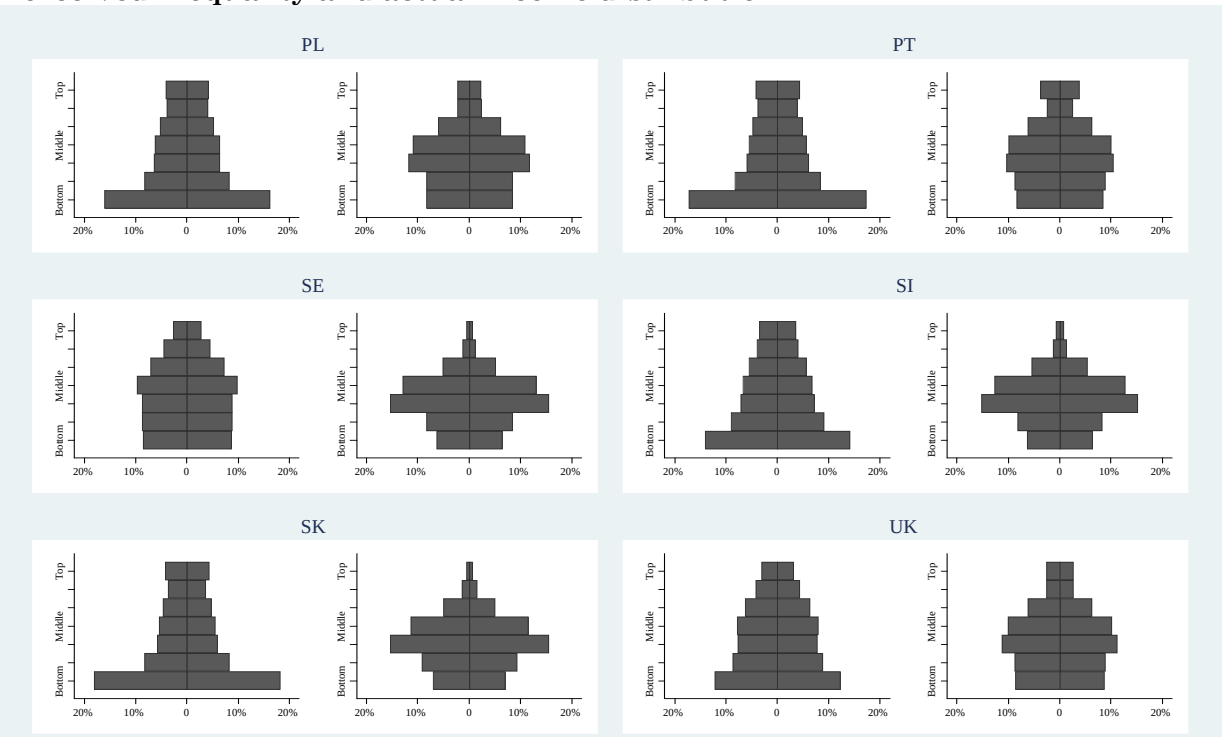
Appendix

Figure A.1:
Perceived inequality and actual income distribution I



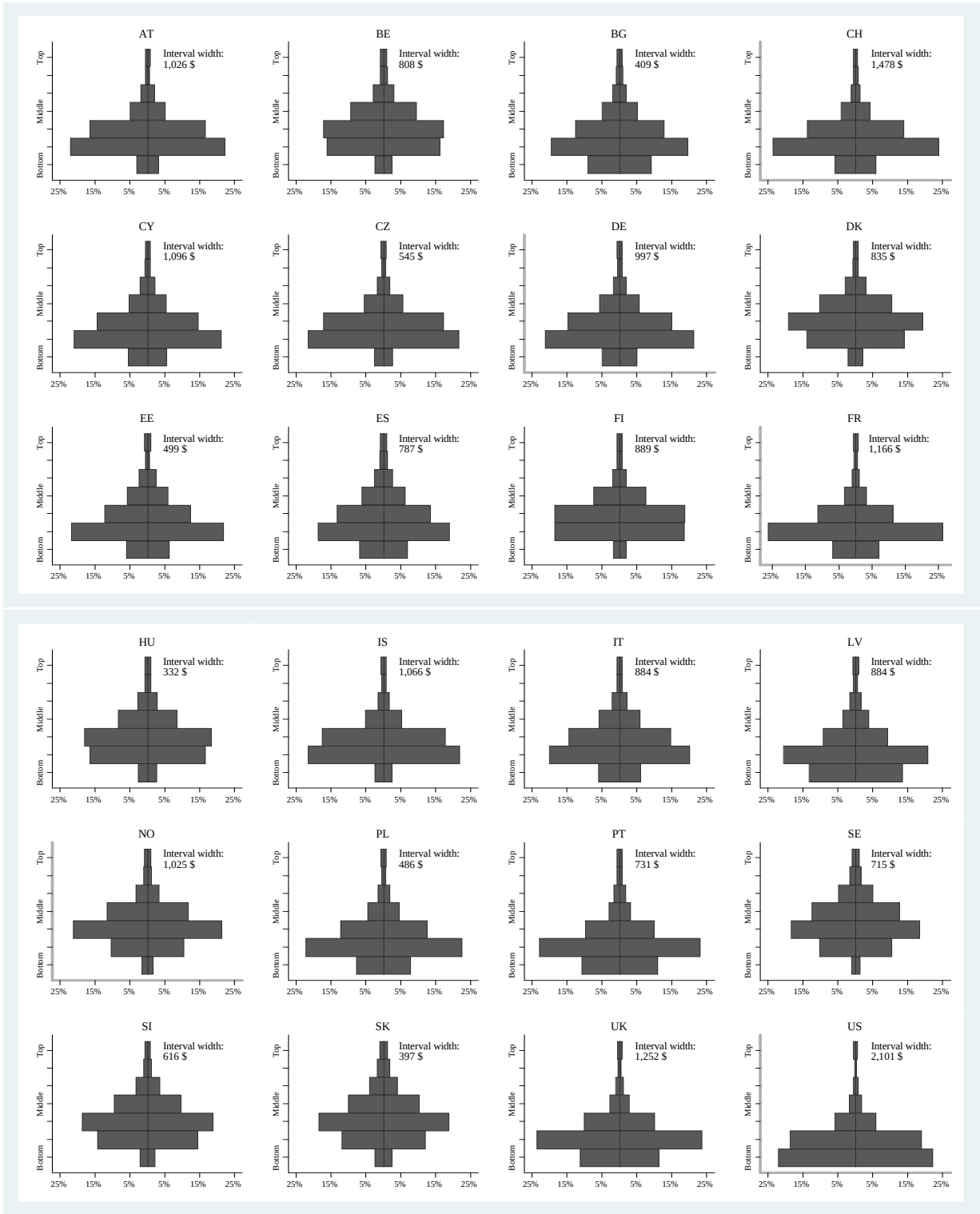
…to be continued on the next page.

Perceived inequality and actual income distribution II



For each country, the diagram on the left-hand side illustrates perceived inequality in the society, and the right-hand side diagram represents the actual income distribution.
Source: EU-SILC; ISSP

Figure A.2:
Population shares in seven income intervals



The "interval width" is equal to the 99th percentile of disposable incomes divided by seven and measured in purchasing power adjusted international dollar. The seventh income interval comprises all individuals whose disposable income is greater than six times the interval width (thus, it additionally includes the richest percent of the population).
Source: EU-SILC, PSID