International Preferences for Income Distribution:
Evidence from ISSP, 1987-2009

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Abstract

This thesis provides an extensive set of indicators and graphs concerning preferences over distribution of income, using questions from *ISSP* surveys which ask for *perceived* and *desired* wages of several professions in 43 countries. I introduce a new method based on their answers to infer the shape of income distribution desired in a country, as well as implied income tax rates. The first part reveals through a synthesis of tastes' determinants and a meta-analysis of the literature that over the last thirty years, people are increasingly being favorable to a substantial redistribution of income. The rise in the desired contraction of the salary scale is driven by the rise in perceived inequalities rather than by the evolution of desired ratio between high and low wages. In the second part, the methodology is discussed and the first graphs are exposed: on average, people want a 72% increase on low wages and a 52% decrease on highest incomes. The third part consists of a presentation of global results, an international and inter-temporal comparison and a summary of national preferences: one learns for instance that average desired decrease of highest incomes in 6 Western countries rose from 36% in 1987 to 77% in 2009, or that citizens want on average an additional transfer from the top 4% to poor of about 8% of GNI. The last part prospects for future research, and proposes notably a new questionnaire to better determine preferences over the fiscal system. Finally, graphs of desired income tax rates by country are displayed in Appendix.

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Contents

Introduction

Does the actual tax system reflect citizens' aspirations in matter of redistribution? What are distributive preferences across countries and throughout years? What are the income tax rates desired by citizens? Several surveys bring answers to these questions; they provide somehow the missing piece to apply the theory of optimal taxation: the social planner's objective.

A growing literature presents these surveys' results, be it to determine correlates for preferences over distribution (income, political leaning, age, gender...) or to quantify the desired redistribution, measure its evolution and compare inclinations in different countries. Still, some surveys remain under-exploited: notably *ISSP Social Inequalities* (*I* to *IV*), which gather answers on this subject from 43 countries, between 1987 and 2009. Hence, I build from this dataset the most extensive set of indicators and graphs to date relating preferences over distribution of income, using mainly a set of questions asking for *perceived* and *desired* wages of different professions.

The first part consists in a synthesis and a meta-analysis of the literature. Determinants for distributive tastes seem consistent over studies, because most privileged groups are always less keen on redistribution; nonetheless, the share of explained variances remain low in all regressions, meaning that preferences over distribution are mostly idiosyncratic. This is supported by the fact that political leaning is much more informative than any social characteristic (including income) for predicting distributive preferences. I exhibit a new finding in this part: the constant rise of desired contraction of the salary scale over the last 25 years, driven by the rise of perceived inequalities.

In the second part, I explain the methodology used to draw all graphs presented in Appendix B[1] and discuss the hypotheses that allows to interpret them as desired income tax rates. I argue that these figures should be regarded as wishes for *additional* income tax rates (negative on average for the three lowest quarter of the distribution and positive only for the highest decile or vintile), with the damper that *tax* has to be understood in a very broad sense, which includes, *e.g.*, a renegotiation of wages. Although results vary across countries, the median desired increase in low wages is on average as high as 70%, while citizens want to cut highest wages by half.

In the third part, I present global results, summarize tastes among countries and study their differences[2]. The overall conclusion is that in all countries citizens are dissatisfied with the current level of inequalities and want both a substantial increase of low wages and a decrease of high income, and that these preferences are correlated with national income per capita and Gini coefficient: people in poorer countries want higher increase of low wages, in richer countries they want higher taxes on high wages, and in unequal countries they accept more inequalities in absolute terms. Moreover, I compute the budgetary cost and the transfer from rich to poor implied by *median desired tax rates*: these estimates bare a lot of margin of error, but are on average of respectively 14% and 8% of GNI.

In the last part, I suggest to conduct a new survey inquiring about people's preferences for their national fiscal system. Indeed, the shortcoming of this thesis lies in the difficulty to interpret its results as a support for some political reform. In an attempt to grasp fiscal tastes in a limited number of questions, I present a new questionnaire. Finally, I show how this work can be linked to the theory of optimal taxation. Namely, I derive a differential equation whose resolution allows to compute income tax rates that would insure to implement a given distribution of income — the desired one — depending on taxable income elasticities.

I adopt in this thesis a non-welfarist approach, taking grounds on well-being economics in considering that the social planner's objective should be a distribution's shape instead of a sum of positively weighted (monotonic transformation of) consumption levels. Indeed, more and more

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[1] All graphs are presented on-line: desired-tax.shinyapps.io/shiny_app.

[2] An example of graph showing this kind of results is given next page

insight supports the view that one's well-being depends more on her position in the social ladder and on the extent of inequality than on her income in absolute terms. One has then to allow for negative social welfare weights or to choose an altruistic specification for the utility function to conciliate people's desired distribution to the one resulting from the optimization of a welfare function. These are kinds of tricks which allow to remain consistent with utilitarianism but are not relevant once one accepts to depart from this framework. Instead it appears more simple and direct to both measure distributive preferences and define tax rates in terms of shape of the distribution.

Figure 1 – Running median desired *additional* tax rates for different countries (data: ISSP)
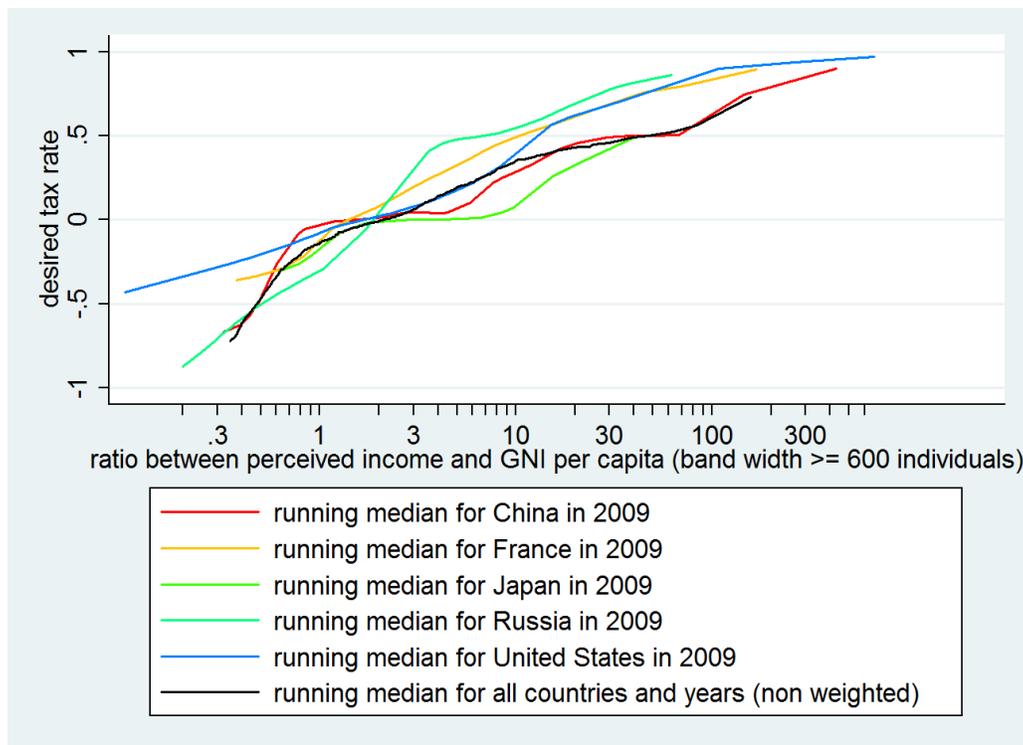
Part I
Correlates of preferences over distribution

1 Overview

Based on several surveys, different articles have shown what the correlates of preferences for distribution are. It is constantly and consistently reported that, other things equal, aversion for inequalities is stronger among women, African-American and unemployed people but decreases when education, age or income increases, with the damper that this aversion is also lower for young and low-income people.

An interpretation that encompasses all of these correlations is the following: disadvantaged groups are generally more aware of inequalities and among them, even those who have succeeded financially keep in mind the lack of fairness in society, thus are more inclined to redistribution. Meanwhile, some people are disadvantaged but are not aware of the extent of inequalities, because they haven't had the occasion to meet privileged people, thus are less keen to redistribution. This explanation accounts both for the linear relations between favoring redistribution and social characteristics, and for the inverted U shape of the relation with age and income. It is commonly accepted to explain discrepancies in beliefs by differences in backgrounds and the variations of information associated with them[3]. Moreover, this interpretation is underpinned by the significant and positive correlation between perceived ratio of high over low wages and age, quintile of income and being a man[4]. Forsé & Parodi [2007] argue that this is due to the observation of a wider range of salaries by men and older people, who usually reach a higher position in their career. The combination of this disparity of information about inequalities and of the sense of belonging to a disadvantaged group forms a plausible explanation for the preferences for distribution.

Let us now detail the correlations revealed by the literature, in an attempt of a methodical review and comparison of all findings. I will (1) give the overall picture in a benchmark regression before (2) presenting the articles and data that will be scrutinized and the methodology of the meta-analysis and (3) showing the results of the literature.

2 Main dataset and variables, benchmark regression

As a benchmark to compare to the literature's result, I present here the main determinants of preferences for distribution using data from International Social Survey Program. These surveys are conducted each year on a specific theme under the supervision of an international consortium of researchers and institutions. Some waves use questionnaires that have already been asked, allowing for temporal analysis. In particular, our theme of interest, Social Inequalities, has been asked in 4 waves: 1987 (in 10 countries), 1992 (18), 1999 (26) and 2009 (40)[5]. Mode of interview differs for the individual countries: partly face-to-face interviews with standardized questionnaire (partly

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[3] see Piketty [1995] for a dynamic model of political beliefs formed upon information path.

[4] As one can see in **perceptions.do**. The correlations of these variables with *perceived wage ratio* and with our main indicator for distribution preferences have opposite signs, although the former enters positively in the formula of the latter: this makes a solid case for the interpretation above.

[5] Countries in the 1987 wave: Australia, Austria, Hungary, Great Britain, Italy, Netherlands, Poland, Switzerland, United States, West Germany;

– new countries in the 1992 wave: Bulgaria, Canada, Czechoslovakia (counted as Czech Republic), (East Germany,) New Zealand, Norway, Philippines, Russia, Slovenia, Sweden; Netherlands no more participated in ISSP-IS after 1987;

– new countries in the 1999 wave: Chile, Cyprus, France, Israel, Japan, Latvia, Portugal, Slovakia, Spain; Italy is absent from the 1999 wave;

computer-assisted), partly paper and pencil and postal survey. All samples are representative samples of the country's adult population, sizes of samples ranging from 800 to 4000, with an average slightly below 1500 respondents. All computations presented in this work are non-weighted, as including weighting factors does not change substantially the results (*cf.* Table 12).

Our main variables of interest are (the answers to) a set of questions of the form: "About how much do you think a [profession] earns?", "About how much a [profession] should earn?", stated with different types of professions: "unskilled worker in a factory", "doctor in general practice", "cabinet minister in the national government", "chairman of a large national corporation" (CEO), "shop assistant"[6]... From these variables, that I call *perceived* (or *current*) incomes, and *desired* incomes, I define several indicators. The *desired wage ratio* of an individual corresponds to the ratio between her *desired high wage* and her *desired low wage* (I define similarly the *perceived wage ratio*). I take as *high wage* the geometric average of income of a minister and that of a CEO, and as *low wage* the income of an unskilled worker (in effect, only these three professions appear in all country/year samples). Following Forsé & Parodi [2007], I then define *sensitivity to inequalities* as the log of the ratio between perceived wage ratio and desired wage ratio:

$$sensitivity \quad = \quad log_{10}\left(\frac{perceived\ wage\ ratio}{desired\ wage\ ratio}\right) = log_{10}\left(\frac{perceived\ high\ wage}{desired\ high\ wage}\Big/\frac{perceived\ low\ wage}{desired\ low\ wage}\right)$$

This indicator can be interpreted as the order of magnitude of the desired contraction of the salary scale. For example, the average value of sensitivity, 0.32, means that, on average, people desire a contraction of the salary scale of 3.2 decibel, which is equivalent to a factor 2.1^7. Sensitivity increases with both the extent of perceived inequalities and the desire for more equal wages: it captures the combination of these two factors. In Table 1, I regress linearly sensitivity to inequalities on social characteristics, and I find usual signs and significance for these correlations. The new results I exhibit are the idiosyncratic preference of each country and, more importantly, the striking rise of sensitivity across time. Indeed, average sensitivity rose steadily from 0.20 in 1987 to 0.37 in 2009 (*cf.* section 11). Even after controlling for country fixed effects, wave dummies are the variables whose correlation have the greatest size[8]: up to 68% of one standard deviation of sensitivity for the 2009 dummy. Moreover, although residuals of the regression are not normal nor homoscedastic (both tests were rejected), I conduct an analysis of variance which gives an insight about variance components: the largest part of explained variance in this model comes from country and year[9]. Right after comes political leaning, whose size is several times bigger than that of income or age. Indeed, a 1% increase of family income is associated on average with a 0.03% decrease of desired contraction of the salary scale, whereas an additional unit in the five-steps left-right political spectrum is associated with a decrease of 3% of sensitivity.

– new countries in the 2009 wave: Argentina, Belgium, China, Croatia, Denmark, Estonia, Finland, Iceland, Korea, South Africa, Taiwan, Turkey, Ukraine, Venezuela; Canada is absent from this wave.

[6] Professions asked for depend on waves and countries as generally no more than half a dozen of professions are mentioned in a given survey. I listed above the 5 most frequent professions (more than 95000 observations each), here is the rest of the list, which is sorted in decreasing number of observations (the remaining professions range from 15000 to 61000 observations): "owner manager of a large factory", "skilled worker in a factory", "lawyer", "judge in country's highest court", "farmer", "owner of a small shop", "bricklayer", "secretary", "bank clerk" and "bus driver".

[7] The log is used so that attenuation and amplification of a same factor appear of the same size: it is natural to use log when working with ratios. Furthermore, most correlations don't hold if one skips the log. However, for a better understanding, aggregate results for *sensitivity* presented in Table 12 are expressed in terms of *contraction*, where $contraction = 10^{\widehat{sensitivity}}$ and $\widehat{sensitivity}$ designates aggregate sensitivity (median or average value).

[8] *Size* is a standardized measure of coefficients in terms of standard deviations, allowing to compare results across articles, I define it in 3.3.

[9] Proportion of variance explained by the country is: $\frac{sum\ of\ squares\ of\ country}{model\ sum\ of\ squares} = \frac{\sum_c n_c(\bar{P}-\bar{P_c})^2}{\sum_j(\bar{P}-P_j)^2} = 0.67$, where $\bar{P_c}$ (resp. n_c) is the average preference (resp. the number of observations) for country c.

Table 1 – Linear regression over social characteristics of *sensitivity* (log of desired contraction of the salary scale) on 41 countries (data: ISSP Social Inequalities, OLS, 15 countries reported)

Regressor	Coefficient	t-statistics	p-value	Size[8]	Variance component
constant	*.112*	50570 observations			R^2: *.128*
log family income	−.032***	−11.96	6.7e-33	−.010	.02
left-right scale[a]	−.030***	−14.82	1.7e-49	−.089	**.07**
female	.024***	7.70	1.3e-14	.073	.01
age	.005***	8.08	6.8e-16	.242	.01
age^2	−.00006***	−8.79	1.6e-18	−.313	.01
highest degree	−.008***	−5.86	4.6e-09	−.036	.01
unemployed	.020***	2.59	9.5e-03	.059	.00
employed part-time	.001	.30	7.7e-01	.004	.00
retired	.035***	5.54	3.0e-08	.104	.00
student	−.006	−.47	6.4e-01	−.017	.00
not in labor force	.027***	4.43	9.7e-06	.081	.00
self-employed	−.014***	−3.12	1.8e-03	−.041	.02
Wave (reference: 1987)					**.13**
1992	.105***	11.00	4.0e-28	.317	
1999	.162***	17.68	8.9e-70	.488	
2009	.226***	25.31	2.e-140	.680	
Profession (ref: clerk)					.02
executive	−.032***	−4.80	1.6e-06	−.100	
engineer	−.004	−.65	5.1e-01	−.012	
intermediate profession	.011**	1.90	5.8e-02	.033	
service worker	.031***	5.15	2.6e-07	.092	
farmer	.021**	2.39	1.7e-02	.063	
craft worker	.043***	6.80	1.0e-11	.128	
machine operator	.049***	6.91	5.0e-12	.146	
unskilled worker	.030***	4.56	5.1e-06	.090	
Countries (ref: Argentina)					**.67**
Belgium	−.110***	−5.96	2.5e-09	−.332	
Chile	.222***	12.38	3.9e-35	.668	
China	−.080***	−4.77	1.8e-06	−.234	
Denmark	−.094***	−5.13	3.0e-07	−.283	
France	.105***	6.59	4.4e-11	.315	
Hungary	.118***	7.25	4.4e-13	.355	
Italy	.243***	12.59	2.9e-36	.732	
Japan	−.027	−1.04	3.0e-01	−.082	
Philippines	−.180***	−1.48	1.2e-25	−.541	
Russia	.222***	5.71	5.0e-41	.670	
South Africa	−.038**	−2.22	2.6e-02	−.114	
Ukraine	.314***	15.23	3.0e-52	.945	
United States	.088***	5.45	5.1e-08	.266	
Venezuela	−.081***	−4.02	5.9e-05	−.244	

[a]Political leaning is totally absent from 20 samples and there are lots of missing values in other samples. It was not included in the benchmark regression because it would have resulted in halving the number of observations. The coefficients reported for *left-right scale* are taken from a regression with the same controls as the benchmark one, plus *left-right scale*. The variance component reported corresponds to the case where *left-right scale* is decomposed in 5 dummies of the political spectrum (in the ordered specification, the variance component is 0.05).

Finally, sensitivity can be decomposed in two parts: *perceived wage ratio* and *desired wage ratio*. When assessing which part is more correlated with explanatory variables, one notices that both correlations are about the same sizes. Moreover, this decomposition gives some interesting insights, notably that professions are not significantly correlated with *perceived wage ratio*, and that *desired wage ratio* increases less over time than *perceived wage ratio*[10], meaning that the rise of sensitivity is driven by the growth of (perceived) inequalities. Indeed, average *desired wage ratio* slightly increases from 3.5 in 1987 to 5 in 2009 for the countries available in all waves, whereas *perceived ratio* thrives from 5.5 in 1987 to 14.3 in 2009. One should arguably interpret the rise in *desired wage ratio* as an insufficient compensation for the rise of *perceived wage ratio*, but not as an absolute loss of distributive taste.

3 Data, sources and methodology

3.1 Articles reviewed

Many scholars have studied preferences over redistribution. Before entering the details of some of their works, I summarize hereafter the main insight of each article that I have reviewed:

○ Fong [2001] finds that self-interest alone cannot explain redistributive preferences: beliefs matter;

○ Corneo & Grüner [2002] reveal (using ISSP 1992) three effects at stake in the formation of individual preferences for redistribution: self-interest, public-values and social rivalry (*i.e.* proximity to neighboring social classes);

○ Piketty [2003] notices that attitudes on inequalities do not vary that much with income nor political leaning;

○ Alesina & La Ferrara [2005] show that preferences for redistribution depend not only on beliefs, but also on *objective* measures of future income prospects;

○ Forsé & Parodi [2007] remark that respondents tend to underestimate inequalities but still favor a contraction of the salary scale;

○ Kenworthy & McCall [2007] use over-time trends in redistributive tastes to dismiss the median-voter hypothesis;

○ Guillaud [2008] relate determinants of preferences for redistribution in four polar European Welfare states and study the evolution of political cleavage on the question in France;

○ Singhal [2008] quantifies desired income tax rates for seven OECD countries: they seem in-line with current ones;

○ Alesina & Giuliano [2009] review determinants of preferences for equality for many countries, emphasizing on the role of cultural factors and personal history;

○ McCall & Kenworthy [2009] observe that rising inequalities translate less into support for more progressive taxes than for other governmental actions (such as investment in education) aimed to reach equality of opportunities;

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[10]Indeed, the regressions with the same controls as the benchmark one but with *log of perceived wage ratio* (resp. *log of desired wage ratio*) as the explained variable gives the following coefficients for wave dummies (1987 being the wave of reference): 1992: 0.15 (resp. 0.04), 1999: 0.30 (0.13), 2009: 0.36 (0.13).

○ Heinemann & Hennighausen [2010] show using German data that favored tax rate is (partly) driven by fairness considerations;

○ Guillaud [2011] focuses on the role played by the occupational status in shaping individuals' preferences;

○ Neher [2011] studies correlates of preferences for distribution in a working paper[11];

○ Norton & Ariely [2011] exhibit (using an *ad hoc* survey) desired distribution of wealth of American citizens (which is more egalitarian than *perceived* distribution, itself more equal than the actual distribution);

○ Weinzierl [2013] shows that Americans stand somewhere in between Utilitarian criterion and principle of Equal Sacrifice in their preferences over social choice;

○ Barnes [2014] distinguishes redistributive attitudes between support for progressivity and desired level of tax;

○ Forsé & Parodi [2014] assess French preferences for their tax system (using Dynegal survey): they describe desired tax rates, show a lack of support for marital quotient and a support for taxation of imputed rents;

○ Kuziemko et al. [2015] find (using an *ad hoc* survey) that informing respondents about the extent of inequalities affect their view on the subject but let the policies they support roughly unchanged.

3.2 Sources

As it is unnecessary to overload the reader of figures very similar to those further exhibited, I do not report all previous articles' results. Instead, I reproduce baseline regressions of a selection of articles. I have selected the articles so that they cover all surveys available concerning preferences for distribution, namely:

○ International Social Survey Program (ISSP) – Social Inequalities I-IV (SI): this is the main dataset I use, I have already presented it in section 2;

○ ISSP 1999 – Social Inequalities III: although this survey has been conducted in 26 countries, Guillaud [2008], Kenworthy & McCall [2007] and Forsé & Parodi [2007], who use it, retain only a subset of (respectively 4, 8 and 8) countries in their studies[12], the former for a purpose of readability, the second for technical reasons, the latter for a comparison of polar case of welfare states;

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[11]He concludes that in OECD countries, there is no desire to change redistributive policies and that there is a desire to redistribute less in non-OECD countries, in contradiction with the rest of the literature. I think that he over-interprets the results of the WVS question he uses, which is a scale between "Incomes should be made more equal" (1) vs. "We need larger income differences as incentives" (10). Indeed, average and median values are both at 5.5 for this question, which is puzzling at first sight, given typical attitudes towards inequalities. However, "larger income differences" can be understood as "incentives" at the individual (or company) level only: people would then support that a bigger share of wages be variable and dependent on one's efforts, not necessarily that inequalities be larger.

[12]Forsé & Parodi [2007] studies France, Germany, Great Britain and Sweden;
Guillaud [2008] studies the formers plus Japan, Poland, Spain and the United States.

○ ISSP 2006 – Role of Government: seven countries of the third wave are studied by Singhal [2008] while the fourth wave is exploited by Barnes [2014] for the 17 advanced industrial countries within the dataset[13], by McCall & Kenworthy [2009] for the United States and by Guillaud [2011] for the 33 covered countries ;

○ General Social Survey (GSS), 1972-2004: used by Alesina & La Ferrara [2005], McCall & Kenworthy [2009] and Alesina & Giuliano [2009] (where they match it with the Panel Study of Income Dynamics – PSID), this survey asks hundreds of questions to American citizens;

○ Gallup Poll Social Audit Survey, 'Haves and Have-Nots: Perceptions of Fairness and Opportunity', 1998: employed by Fong [2001], it concerns also the United States;

○ World Values Survey (WVS) I-IV, 1981-2004: used by Alesina & Giuliano [2009] for international cross-country evidence (72 countries in total);

○ Piketty [2003] *ad hoc* survey for France with some questions similar to those studied in this thesis;

○ Weinzierl [2013] *ad hoc* survey for the United States where he asked respondents to rank different income tax systems (that are presented graphically), including two extreme cases (Rawlsian and Equal Sacrifice — *i.e.* a flat tax) and mixed ones.

3.3 Methodology of the meta-analysis

As a necessary prelude to meta-analysis, let us be clear on the methodology: firstly, I have followed the convention linking the significance level and the number of stars[14]; secondly, I report only significant correlations in the tables below (so as to not overload). More importantly, here is how I compare the magnitudes of the coefficients across articles. All the authors reviewed have studied the determinants for preferences over distribution by running regressions of these preferences P on social characteristics $\mathbf{X}$. Depending on the nature of the dependent variable (continuous, binary or categorical) their specification vary (from linear model to logit or ordered logit/probit), so we cannot compare directly the coefficients from one article to another. This is why I define a *standardized size* for the coefficient of any explanatory variable as the average marginal effect of one standard deviation (resp. an activation) of this variable (resp. dummy) over one standard deviation of the dependent variable:

$$size_X \quad = \quad \begin{cases} \frac{\sigma_X}{\sigma_P} \cdot \mathbf{E}\left[\frac{\partial P}{\partial X}\right] & \text{if } X \text{ is not binary} \\ \frac{1}{\sigma_P} \cdot \mathbf{E}\left[\frac{\partial P}{\partial X}\right] & \text{if } X \text{ is a dummy} \end{cases}$$

Sometimes, the square of income or age appears as a regressor. In such a case, the formula above is slightly adjusted: in order to compare (the magnitudes of the coefficients of) a variable and its square, I find it more intuitive to compute the weight of the marginal effect of the squared variable using one standard deviation (s.d.) of the original variable, rather than one s.d. of its squared counterpart. Moreover, as the dependency is no more linear in this case, one has to choose the value of the explanatory variable where to estimate the effect: logically, I choose the average value of the variable. Formally, the model writes (in the continuous case):

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[13]Australia, Canada, Denmark, Finland, France, Germany, Ireland, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Great Britain and the USA.

[14]*: p<0.1, **: p<0.05, ***: p<0.01

$$\begin{aligned} P(X, \mathbf{Y}) &= a + b \cdot X + c \cdot X^2 + d \cdot \mathbf{Y} + u \\ P(\bar{X} + \sigma_X, \mathbf{Y}) - P(\bar{X}, \mathbf{Y}) &= b \cdot \sigma_X + c \cdot (\sigma_X^2 + 2 \cdot \sigma_X \cdot \bar{X}) + v \end{aligned}$$

Hence, the standardized size of X^2 is the effect on P of a shift of one s.d. from the average of X that is channeled through the linear relation between P and X^2:

$$size_{X^2} = \frac{\sigma_X^2 + 2 \cdot \sigma_X \cdot \bar{X}}{\sigma_P} \cdot c$$

Finally, I give the specifications of the regressions that I report in Table 2, notably because the dependency to a variable depends on the other variables included in the model. Be aware that authors run several regressions: I provide here the specification of the baseline ones. Furthermore, when I'll mention an explanatory variable which does not appear in these specifications, it is simply because it is the only additional variable, as compared to the baseline case, in a separate and specific model. To conclude, it is worth noticing that none of the regressions is able to explain a substantial part of preferences for distribution: all R^2 (or pseudo-R^2) range between .04 and .13, meaning that preferences for distribution remain essentially idiosyncratic.

Table 2 – Specification of examined regressions

Author(s)	Data	Model	Dependent variable	Explanatory variables[a]
Barnes[b]	ISSP-06	OLS logit	level of tax[c] progressivity[d]	I I² F A U D Skill specificity Occupational unemployment Political trust Social trust Religiosity R S NILF PS SE
Guillaud	ISSP-99	ologit	reduce income diff.[e]	Income quintile F A A² M Profession[f] PS SE Country
Alesina & La Ferrara	GSS	oprobit	reduce income diff.[g]	ln(I) F A B M SE Educ<12 Educ>16 Has children Unemployed in the last 5 years
Alesina & Giuliano	GSS	OLS	for redistribution[h]	I F A A² B M U High school[i] College and more
Fong	Gallup	oprobit	for redistribution[j]	Income categories (8) F A A² White M U Union membership College and more Part-time Worries about bills Beliefs about inequalities categories[k]
me	ISSP-SI	OLS	sensitivity[l]	ln(I) F A A² D U R S NILF SE Part-time Year Profession[f] Country

[a]Abbreviations: I: Family income; F: Female; A: Age; B: Black; M: Married; U: Unemployed; D: Highest degree attained (5 categories); R: Retired; S: Student; NILF: Not in Labor Force; PS: Public-sector employee; SE: Self-employed

[b]The raw questions are: "How are taxes on [high/middle/low]-income groups?" From the 5 answers: "(Much) too high/low" or "about right", Barnes constructs two indicators:

[c]– level of tax: average tax attitude across the 3 income groups (1: much too low; 5: much too high)

[d]– (strict) progressivity: =1 if preferred level of tax increases with income (60% of respondents); =0 if not or if tax attitude is the same for the 3 income groups. "Much too" & "Too" answers are grouped for the computation of this dummy.

[e]"It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes", inversed scale 5-1: Strongly agree – Strongly disagree

[f]8 dummies for standard one-digit ISCO classification

[g]"The government should reduce income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor", scale 1-7: should not – should

[h]"Some people think that the government in Washington should do everything to improve the standard of living of all poor Americans (they are at point 1 on this card). Other people think it is not the government's responsibility, and that each person should take care of himself (they are at point 5). Where are you placing yourself in this scale?" The scale is reversed.

[i]Highest degree attained is above or equals high school

[j]The measure of support for redistribution is a summative scale of 5 questions (proportion of positive answers is reported in parentheses): Government should redistribute wealth by heavy taxes on the rich (46%); Government should make every possible effort to improve position of the poor (70%) [same question as in Alesina & Giuliano, but yes/no answer instead of a scale]; Groups other than the poor themselves have the greatest responsibility for helping the poor (70%); Distribution of money and wealth is fair (33%); It is a problem that some are rich and others are poor (53%)

[k]5 dummies (all highly correlated): US is a society of haves and have-nots (38%); Luck and effort cause poverty (12%); Bad luck cause poverty (41%); Luck and effort cause wealth (10%); Good luck causes wealth (34%); Plenty of Opportunity (to get ahead) in US (83%)

[l]log of perceived over desired wage ratios, *i.e.* log of desired contraction of the salary scale, *cf.* next section.

4 Literature synthesis

4.1 Income

Table 3 – Correlations between preferences for distribution and income

Variable	Sign	Size	Dependant variable	Significance	Data	Author
Income	+	.35	progressivity	***	ISSP 2006	Barnes
Income²	−	−.57	progressivity	***	ISSP 2006	Barnes
Income	+	.28	level of tax	***	ISSP 2006	Barnes
Income²	−	−.41	level of tax	***	ISSP 2006	Barnes
Income	−	−.11	for redistribution	***	GSS	Alesina & Giuliano
Income quintile Q1[a]	+	.52	reduce income differences	***	ISSP 1999	Guillaud
Income quintile Q2[a]	+	.47	reduce income differences	***	ISSP 1999	Guillaud
Income quintile Q3[a]	+	.39	reduce income differences	***	ISSP 1999	Guillaud
Income quintile Q4[a]	+	.36	reduce income differences	***	ISSP 1999	Guillaud
log(income)	−	−.01	sensitivity	***	ISSP-SI	me
ln(real income)	−	−.05	reduce income differences	**	GSS-PSID	Alesina & La Ferrara
Income above 150,000[b]	−	−.29	for redistribution	**	Gallup 1998	Fong
Income status	−		Rawlsian		Weinzierl [2013]	Weinzierl

[a]The reference quintile is the upper one (Q5).
[b]The reference group is "income below $10,000 per year", whose average answer is only about .06 above average.

Income is one of the most important determinant of (lack of) willingness to redistribute income, obviously. Whatever the variable of interest, the upper quintile of the income distribution is always about half a standard deviation of this variable less prone to redistribution. However, this relation does not seem to be linear: interestingly, low-income accept more inequalities than middle-incomes. This can be explained by a lack of lucidity upon the extent of inequalities, as already discussed. All the variables examined are actually family income and not personal income.

4.2 Gender

Table 4 – Correlations between preferences for distribution and being a woman

Sign	Size	Dependant variable	Significance	Data	Author
−	−.06	level of tax	***	ISSP 2006	Barnes
+	.36	progressivity	**	ISSP 2006	Barnes
+	.18	reduce income differences	***	ISSP 1999	Guillaud
+	.14	reduce income differences	**	GSS-PSID	Alesina & La Ferrara
+	.02	for redistribution	***	GSS	Alesina & Giuliano
+	.26	for redistribution	***	Gallup 1998	Fong
+	.07	sensitivity	***	ISSP-SI	me
+		desired ratio low/high wage		ISSP 1999	Forsé & Parodi
+		Rawlsian		Weinzierl [2013]	Weinzierl

Less intuitively, gender is also very correlated with preferences for distribution, although the size of this correlation is quite low: females are more pro-redistribution than males. Comparing this table with the previous one, one can see the decoupling between preferences over level of tax and over progressivity: whereas high-income were associated with both lower taxes and lower progressivity, being a woman is associated with lower taxes but higher progressivity. Although the reasons for women wishing less taxes than men remain unclear, this proves that Barnes' insight to distinguish between size and shape of taxation is crucial if one wants to precisely understand the determinants of preferences over taxation.

4.3 Age

The older, the less pro-redistribution, with a non negligible size of the effect. This is what almost all articles show. The only exception is Barnes [2014], which seems at first glance to contradict this general tendency. Apart from the fact that elderly want a higher level of taxes than average, which can be understood as they benefit from health and pensions spending (which are financed by taxes in its broad sense); the correlation between age and support for progressivity appears to have the wrong sign as compared to similar variable of interest (the lower half of Table 5). Yet, Barnes assumes a linear relationship between age and support for more progressivity while other authors have exhibited an inverted U shape. Indeed, while reproducing the results of Barnes, I introduced the square of age in the regression: both age and age^2 were significant at the 1% level, and the usual shape of the relationship was retrieved. One can interpret the downward sloping of this relationship as a progressive acceptance of inequalities as years and illusions go, while prospect of upward mobility moderates willingness for young people to ask for more progressivity.

Furthermore, I found an anomaly in Alesina & Giuliano [2009]'s results for age: the coefficients they report seem to be wrong. Actually, their coefficients lead to abnormally high estimates for standardized size: .86 for age and 2.04 for age^2. The most plausible explanation for these puzzling figures is that they normalized the variable *age* in their dataset but forgot to mention it. Indeed, while reproducing their regression, I find near exact same coefficients for all variables but age and age^2. I report on the table below the results I have found.

Table 5 – Correlations between preferences for distribution and age

Variable	Sign	Size	Dependant variable	Significance	Data	Author
Age	+	.09	level of tax	***	ISSP 2006	Barnes
Age	+	.11	progressivity	***	ISSP 2006	Barnes
Age	+	.32	progressivity	***	ISSP 2006	me
Age²	−	−.27	progressivity	***	ISSP 2006	me
Age	+	.24	sensitivity	***	ISSP-SI	me
Age²	−	−.31	sensitivity	***	ISSP-SI	me
Age	+	.08	for redistribution	**	GSS	Alesina & Giuliano
Age²	−	−.18	for redistribution	***	GSS	Alesina & Giuliano
Age	+	.19	reduce income differences	**	ISSP 1999	Guillaud
Age²	−	−.21	reduce income differences	**	ISSP 1999	Guillaud
Age	−	−.04	reduce income differences	**	GSS-PSID	Alesina & La Ferrara
Age	−		desired ratio low/high wage		ISSP 1999	Forsé & Parodi
Age	−		progressive sacrifice		Weinzierl [2013]	Weinzierl

4.4 Education

As expected, less educated people favor more redistribution than others, other things equal, probably because they wish that welfare state do more for improving their situation. On the other hand, it is interesting to see that more educated people want a higher level of tax than average, maybe because they prospect a high level of education for their children, which needs to be finance by the State. They are also more keen to be aware of the spending side of taxes and its importance for welfare.

Table 6 – Correlations between preferences for distribution and education

Variable	Sign	Size	Dependant variable	Significance	Data	Author
Education	+	.09	level of tax	***	ISSP 2006	Barnes
Education	−	−.02	progressivity	**	ISSP 2006	Barnes
Education > high school	−	−.13	for redistribution	***	GSS	Alesina & Giuliano
Highest degree	−	−.04	sensitivity	***	ISSP-SI	me
Education < 12 years	+	.30	reduce income differences	**	GSS-PSID	Alesina & La Ferrara
Education > 16 years	−	−.18	reduce income differences	**	GSS-PSID	Alesina & La Ferrara
Education >= college	−	−.2	for redistribution	***	Gallup 1998	Fong
Education	−		equal sacrifice		Weinzierl [2013]	Weinzierl

4.5 Profession

Table 7 – Correlations between preferences for distribution and profession

Variable	Sign	Size	Dependant variable	Significance	Data	Author
Public sector	+	.12	level of tax	***	ISSP 2006	Barnes
Public sector	+	.08	progressivity	***	ISSP 2006	Barnes
Public sector	+	.04	reduce income differences	***	ISSP 1999	Guillaud
Self-employed	−	−.06	level of tax	**	ISSP 2006	Barnes
Self-employed	−	−.07	progressivity	***	ISSP 2006	Barnes
Self-employed	−	−.002	reduce income differences	**	ISSP 1999	Guillaud
Self-employed	−	−.21	reduce income differences	**	GSS-PSID	Alesina & La Ferrara
Self-employed	−	−.04	sensitivity	***	ISSP-SI	me
Executive	−	−.43	reduce income differences	***	ISSP 1999	Guillaud
Executive	−	−.10	sensitivity	***	ISSP-SI	me
Engineer	−	−.25	reduce income differences	***	ISSP 1999	Guillaud
Intermediate profession	−	−.12	reduce income differences	**	ISSP 1999	Guillaud
Intermediate profession	+	.03	sensitivity	**	ISSP-SI	me
Service worker	+	.09	sensitivity	***	ISSP-SI	me
Farmer	+	.06	sensitivity	***	ISSP-SI	me
Unskilled worker	+	.09	sensitivity	***	ISSP-SI	me
Machine operator	+	.15	sensitivity	***	ISSP-SI	me
Machine operator	+	.17	reduce income differences	**	ISSP 1999	Guillaud
Craft worker	+	.13	sensitivity	***	ISSP-SI	me

Although the size of the effect of profession is limited, it is highly significant. Barnes interpret being self-employed or a public sector employee as proxies for risk-aversion: hence, risk-lover self-employed are logically less prone to progressivity, which can be seen as an insurance. Concerning the level of tax, public sector employees are logically supportive of more government spending, as they directly benefit from it.

4.6 Working status

Table 8 – Correlations between preferences for distribution and work status

Variable	Sign	Size	Dependant variable	Significance	Data	Author
Student	+	.32	level of tax	***	ISSP 2006	Barnes
Student	−	−.06	progressivity	**	ISSP 2006	Barnes
Student	−	−.02	sensitivity	***	ISSP-SI	me
Retired	−	−.07	progressivity	***	ISSP 2006	Barnes
Not in labor force	+	.08	sensitivity	***	ISSP-SI	me
Unemployed	+	.06	sensitivity	***	ISSP-SI	me

This table shows that work status is significantly correlated with redistributive tastes, albeit a quite small size of the correlation.

4.7 Race

Table 9 – Correlations between preferences for distribution and race (USA)

Variable	Sign	Size	Dependant variable	Significance	Data	Author
Black	+	.37	reduce income differences	**	GSS-PSID	Alesina & La Ferrara
Black	+	.5	for redistribution	***	GSS	Alesina & Giuliano
White	−	−.18	for redistribution	***	Gallup 1998	Fong

The correlation between ethnicity and preferences for distribution were tested only in the United States, and the size of the effect is very big. Race is one of the strongest determinant of favoring redistribution.

4.8 Political leaning

Surprisingly, political leaning is absent from almost all the articles reviewed. A notable exception is Alesina & Giuliano [2009] who find a significant interaction between education and political leaning, which correlates positively with support for redistribution.

In order to explore the link between voting and distribution preferences, I conduct several regressions using data from Piketty [2003], which covers only France. The variable of interest is a subjective scale left-right from 1 to 7; other controls being income, age and their squares, gender, highest degree, and 8 dummies for professions. Dependent variables are often constructed so as to match definitions encountered in other articles, otherwise their name suffice to understand what they stand for. Interestingly, in Piketty's data, the strongest correlations are found for variables directly linked with political decisions, such as choice of minimum wage or of minimum welfare benefit (RMI). On the contrary, politically neutral formulations of preferences for distribution, such as sensitivity to inequalities or desired wage ratio, are not significantly correlated with political leaning. One could argue that this makes a case for the distinction between preferences for distribution

and preferences for *redistribution*. However, when using another dataset (namely, ISSP-SI, our dataset of reference), one finds a strong and highly significant correlation between left-right scale and *politically neutral* preferences for redistribution: a size of -.15 (resp. -.25) for *desired wage ratio* (resp. *sensitivity*) if one restricts the analysis to France[15]. This reminds us to be cautious with the interpretation of magnitudes: they are very sensitive to the indicators chosen and to the specifications of the model. Here, though, a logical explanation for the difference between significance of the correlations between *sensitivity* as defined from Piketty's data and *sensitivity* constructed from ISSP can be found in the definitions of these indicators, more precisely in the difference of proxies for *high wage*[16]: while the former uses wages of senior executives, the latter is built upon controversial CEOs and ministers' salaries. Thus, one can infer that left-leaning people want to redistribute top wages (corresponding to CEOs and ministers) more than right-leaning people, but that preferences for high wages (executives) are not related to the political spectrum. After all, our first interpretation might be correct: if right-wing persons seem to be more conservative on debated issues of redistribution, such as top and minimum wages, they nonetheless support a structural contraction of the salary scale (top wages excluded) similar to left-wing ones.

Table 10 – Correlations between preferences for distribution and political leaning

Variable	Sign	Size	Dependant variable	Significance	Data	Author
left-right scale	−	−.2	for redistribution	***	GSS	Alesina & Giuliano
left-right scale	−	−.09	sensitivity	***	ISSP-SI	me
left-right scale	−	−.05	desired wage ratio	***	ISSP-SI	me
left-right scale	−	−.12	desired increase of minimum wage	***	Piketty [2003]	me
left-right scale	−	−.10	desired RMI	***	Piketty [2003]	me
left-right scale	−	−.08	strict progressivity	***	Piketty [2003]	me
left-right scale	−	−.05	level of tax	**	Piketty [2003]	me
left-right scale	−	−.04	sensitivity		Piketty [2003]	me
left-right scale	−	−.004	desired wage ratio		Piketty [2003]	me
Right-leaning	+		equal sacrifice		Weinzierl [2013]	Weinzierl

4.9 Beliefs and other correlates

Many other characteristics have been tested in the search for correlates with preferences for distribution. Religiosity is negatively correlated, presumably because religious community help their members so they need less state's action than isolated individuals. Union members are more pro-redistribution: this may even be a reason for entering in an union. Unemployed people appear also more pro-redistribution, even if the relation is often non significant. Sentiment of belonging to a social class is logically correlated with preferences for distribution, as well as personal history: experience of social mobility, prestige of one's job above her father's, probability of reaching top income deciles in the future...

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[15]Similar results are obtained if one restricts the analysis to France 1999 (Piketty's survey was conducted in 1998)

[16]The profession used for the low wage does not seem to matter, as unskilled workers (ISSP) and cashiers seem to be comparable jobs. Let us recall that $sensitivity = log_{10}\left(\frac{perceived\ high\ wage}{desired\ high\ wage} \cdot \frac{desired\ low\ wage}{perceived\ low\ wage}\right)$.

Interestingly, trust (whether it be social or political) is associated with higher desired taxes but with less support for progressivity. Finally, the two aspects of tax preference distinguished by Barnes, progressivity and level of tax, are significantly correlated, although with a medium size of the effect.

Table 11 – Correlations between preferences for distribution and diverse characteristics

Variable	Sign	Size	Dependant variable	Significance	Data	Author
Union membership	+	.13	reduce income differences	***	ISSP 1999	Guillaud
Union membership	+	.17	for redistribution	***	Gallup 1998	Fong
Religiosity	−	−.03	progressivity	***	ISSP 2006	Barnes
Religiosity	−	−.03	reduce income differences	***	ISSP 1999	Guillaud
Unemployed in last 5y.	+	.14	reduce income differences	**	GSS-PSID	Alesina & La Ferrara
Political trust	+	.02	level of tax	**	ISSP 2006	Barnes
Political trust	−	−.04	progressivity	***	ISSP 2006	Barnes
Social trust	+	.12	level of tax	***	ISSP 2006	Barnes
Social trust	−	−.0006	progressivity	**	ISSP 2006	Barnes
progressivity	+	.38	level of tax	***	ISSP 2006	Barnes
level of tax	+	.30	progressivity	***	ISSP 2006	Barnes
Job prestige > father's	+	.04	reduce income differences	*	ISSP 1999	Guillaud
Job prestige > father's	−	−.02	reduce income differences	**	GSS-PSID	Alesina & La Ferrara
Prob(7-10 decile)	−	−.01	reduce income differences	**	GSS-PSID	Alesina & La Ferrara
Positive mobility	−		reduce income differences	***	ISSP 1999	Guillaud
Negative mobility	+		reduce income differences	***	ISSP 1999	Guillaud
Class popular	+	.27	reduce income differences	***	ISSP 1999	Guillaud
Class superior	−	−.25	reduce income differences	***	ISSP 1999	Guillaud

Part II
Determination of desired income tax rates by country

This part constitutes the main contribution of my work: it is the broader attempt, since Singhal [2008], to quantify desired income tax rates by country. I will present my empirical strategy before showing the results: the distribution of desired tax rates by income, for each country available.

5 Empirical strategy and identification hypotheses

Using the group of ISSP-SI questions assessing perceived and desired incomes for different professions, I link non parametrically desired income to perceived income, making the bold assumption that, contrarily to the formulation of these questions, answers do not depend on the profession, so that I can add up pairs of incomes (perceived, desired) by removing their reference to profession. For example, imagine that the average wage of a doctor be \$4000 per month, and that some respondent have answered \$6000 to the question "About how much do a doctor earn each month?" and \$5000 to the question "How much should a doctor earn each month?". I choose not to interpret this last answer straightforwardly, this would be by saying that the respondent wishes an income of \$5000 per month for doctors: this would lead to estimate a desired average *increase* of doctors' income by 25% (taking the true value for their income), whereas the respondent wishes a *decrease* of the perceived doctors' income. On the contrary, I consider that it only makes sense if one compares this answer to the other answer of the pair, namely the perceived income: here, I state that the respondent desires a decrease of one sixth of incomes around \$6000 per month. Of course, the dissociation of the answer from the profession is debatable: arguably, doctors are well seen whereas CEOs are not so popular, so I may overestimate desired top tax rates (corresponding to CEOs incomes) while underestimating desired high income tax rates (corresponding to doctors). I reckon that this is a flaw of this work, but I plan to address it by conducting a dedicated survey, which would be designed so as to unambiguously determine desired tax rates: I propose an appropriate questionnaire in the last part.

Formally, my interpretation relies on two hypotheses concerning perceived income of profession j: z_j, and desired income of this profession: z_j^+:

1. preservation of incomes' ordering: a profession j' absent from the survey and which is offers the same remuneration as another profession j included in the survey would exhibit the same answers as j: $z_{j'} = z_j \implies z_{j'}^+ = z_j^+$;

2. exclusive dependency of z^+ to z (but not to the profession): thus, answers z_j distant from actual income of profession j: $\tilde{z}_j$, reveal preferences of redistribution between the small set of professions' actual income $\{\tilde{z}_j\}$.

These two hypotheses allow to aggregate variables for different professions and to determine $z^+(z)$: the income that people find fair depending on current income. Some few subsidiary hypotheses lead to interpret these preferences in terms of tax rates, after defining income tax rate $T(z) = \frac{z - z^+(z)}{z}$ (the name of the corresponding variable in my code is simply tax[17]):

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[17] In the code, $tax = \frac{current\ rev - desired\ rev}{current\ rev}$.

3. agreement with the idea that fiscal policy is the adequate instrument in order to redistribute income;

4. absence of behavioral response[18]: this hypothesis is clearly not respected, it will thus be relaxed it in the last section.

Finally, one wonders if estimated desired tax rates correspond to the difference between desired disposable income and current *gross* income (this hypothesis is qualified as *current rates included* because it leads to a taxation curve close with observed rates) or if they ought to be interpreted as a desire of *additional rates* of taxation, that would add up to current rates (*i.e.* they would amount to the difference between desired disposable income and current *disposable* income). This will be discussed in section 7.

6   Testing the hypotheses

Let us now assess the first three hypotheses. Although it is impossible to test the first hypothesis, because one would have to compare answers relative to professions included in the survey with professions absent from it, the variety of professions represented in the questionnaire seems sufficient to accept this hypothesis. Testing the second hypothesis is feasible with our data: it consists in assessing if the profession has a predictive power over desired tax. Finally, some questions allow to quantify the proportion of people who wish that fiscal policy be used to redistribute income at their desired level of distribution.

6.1   Internal consistency

In order to test the predictive power of profession over desired tax, I run 10 regressions for each sample in the data: for each decile of the distribution of perceived income, I regress *tax* over professions dummies and perceived income[19]. Over such limited samples as deciles of income distribution, the linear relation between perceived income and *tax* must be approximately true. Moreover, if my hypothesis were correct, perceived income should capture all differences due to disparity on professions, because only differences in current incomes for these professions should matter. Hence, I test if coefficients of different professions are significant or not: if they are, my hypothesis is rejected. In order not to test the significance of the inequality between the coefficient of some profession and the one of an arbitrary reference profession, I proceed as follows: I do not include a constant term in the regression, so that each profession has an estimated correlation; I test only *relevant* professions, that is, professions which represent at least 10% of the sample; I run a Fisher test on the equality between each *relevant* coefficient and the average of all coefficients of professions, weighted by the share of respective professions in the sample. Thus, my test is symmetrical: it does not favor arbitrarily one profession; rather, it evaluates if a given profession is attached the same desired tax as the average answer in the adequate decile of income distribution, controlling for perceived income.

The results are quite satisfactory, as over 3229 tests only 127 reject equality at the 1% level. In other terms, around 4% of the professions tested have a predictive power over desired tax (at the 1% level). The most correlated profession (according to this methodology) is owner-manager of a large factory (14% of rejection), followed by minister (7%) and doctor (4%). On the other hand,

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[18]It consists in assuming that pre-tax income distribution is independent from income tax rates. This has to be the case for inferred tax rates to achieve desired redistribution.

[19]I recall that each pair (perceived income, *tax*) corresponds to a question involving a peculiar profession. Besides, the code used for this subsection is in **run.do**.

the least *idiosyncratic* professions are judge (in country's highest court), bus driver, shop assistant and unskilled worker in a factory (less than 2% of rejection each). Not surprisingly, apart from the notable exception of the judge, high-income professions are more prone to carry special wage preferences than low-income ones. Thus, provided that other hypotheses are respected, my results are likely to be accurate for low and middle incomes, and are also likely to be informative for top incomes.

6.2   Interpretation's validity

In the presentation of my results, I operate a shift in their meaning, as I interpret answers about current and ideal wages for different professions as desires for new income tax rates. Arguably, such an interpretation is wrong, or at least, one can not justify it. I agree with such criticism, and this is a reason why I want to administrate a new survey, specifically designed to determine people's preferences over a fiscal reform. However, absent any better data, my approach seems to be a correct attempt to evaluate desired tax rates. Indeed, another question in ISSP tends to confirm that people massively agree to implement a fiscal reform that would close the gap between their preferred distribution and the current one. The question has been asked in almost all countries of the dataset[20], and its formulation is: "Is it the responsibility of the government to reduce differences in income?". Overall, 37% of respondents strongly agree, 73% agree or strongly agree, and only 19% disagree (strongly or not). In every country except New Zealand, a majority agrees with this statement (the minimum is 46% in New Zealand, followed by 51% in the United States, Czech Republic and Denmark). The disagreement share remains at or below 15% for 17 countries, while the agreement share exceeds 70% in 26 countries, even reaching 90% in Portugal, Slovenia and Turkey. Moreover, there is a majority of strong agreement in 9 countries. Finally, there are 4% of missing answers on average.

These results are in-line with the third hypothesis. They are logical, as there are not many institutions or actions except the state and its laws able to address financial inequalities. Moreover, taxes appear as the only peaceful tool suitable for redistribution.

7   Interpretation of desired rates as additional rates?

Even if all previous hypotheses seem plausible, a crucial question has to be answered before one can interpret correctly the results: acceptation of hypothesis 3 leads to understand desires for salary scale contraction as wishes for fiscal reform, but then, do the new tax rates correspond to the current definition of income tax rates, or to additional rates?

One observation could be thought to play in favor of the interpretation as *current rates included*: the survey Dynegal, conducted in France in 2013. People were asked what the income tax should be for 4 levels of monthly wages, first without any constraint, and then with the instruction that these 4 figures should sum up to 4000€, which is the current amount of taxes that the French State perceives on these 4 wages. Results are reported in Forsé & Parodi [2014]: it is striking how close figures of respondents are from current tax rates[21] in the constrained version[22]. From this, one could think that French are satisfied with their current tax system and that they do not wish

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[20]It has been asked in Netherlands in 1987, in 34 countries in 2006 (in ISSP – Role of Government) and in 14 countries in 2009. There are only three countries for which answers are missing: Austria, Bulgaria and Slovakia. The code is available in `perceptions.do` and `Barnes & interpretation.do`.

[21]Apart from the tax rate of the minimum wage, where the median answer is 30€ whereas this income gives right to a tax credit of 130€: respondents probably couldn't (or didn't know that they could) give negative answers.

[22]In the non constrained version, average answers sum up to 2477€ instead of 4000€, consistently with the feeling (which appears in the answers) that taxes are too high.

further progressivity. Yet, (given their shape,) additional tax rates would increase progressivity, contrarily to new tax rates (*i.e.* as *current rates included*): the latter would thus be the right interpretation.

However, this view that French do not want a more progressive tax system is contradicted by other questions in the same survey (60% agree for an increase of taxes on the wealthiest even if they may flee from France, 53% of non-missing answers stand for a range between minimum and maximum incomes of 1 to 10 or below[23], 72% find French fiscal system unfair or very unfair, the median answer on a scale *no redistribution – redistribute equally* is 6.6), as well as questions in other surveys (in ISSP-SI, 82% of French respondents think that high-incomes should be more or much more taxed, etc.). On the other hand, how to account for the difference between desired income taxes expressed in Dynegal (that correspond roughly to current rates in the constrained version) and those emerging from the interpretation of my results as additional rates[24] (which support much more progressivity)?

The discrepancy between answers from Dynegal and results from my method can be due to several factors, compatible with an interpretation as additional rates. First, respondents may have restricted their answers to non-negative values in Dynegal because of their representation of what a tax is[25]: this zero lower bound surely pushes up answers for low and middle-income rates (where *my* answers are negative). Second, respondents may roughly agree with tax rates in the range asked in the survey (from 1100€ to 12000€ per month) while desiring more egalitarian rates outside these bounds. These two arguments amount to say that indeed, French are *not* satisfied with current income tax rates, which has already been shown. Third, French want lower taxes (82% of them, according to Dynegal), except for the rich: this is in-line with my findings as well as with the non constrained answers on tax rates. Moreover, these answers for middle/high incomes exhibit positive rates for middle incomes, where my results give negative rates: this is again in favor of an interpretation as additional rates because negative additional rates are compatible with positive tax rates, contrarily to the inclusion of current rates. Finally, interpreting my results as additional rates seems more consistent with Dynegal's insight than *current rates included*, if only for the last reason. However, an anomaly remains: the low rate (10%) for high-income tax in Dynegal in the non constrained version does not match with the high figure in my results (35%).

Returning to the simple and natural interpretation of the questions asked can explain this disparity: people would like that the salary scale be contracted, they would like it to happen thanks to governmental policies (as seen in 6.2), but it would be beyond certainty to interpret this as a call for redistributive fiscal policies. People's answer reflect a disagreement with current wages that could be resolved by other means than taxation: for example, by renegotiating nationally the levels of wages. Hence, French, who seem to want a smaller State, would like a 10% tax on high incomes together with a substantial decrease of high wages, in accordance with all findings. One can point some inconsistency in this view: capital incomes are not negotiable like wages, thus taxes seem more adequate to reduce high incomes, and supply and demand is unlikely to be so easily dismissed in wage formation. However, an empirical observation tend to confirm this interpretation.

To understand this observation, let us go back to the formulation of questions at stake (and to all countries involved). In ISSP-SI's codebooks, one can discover that precise formulation varies with the sample: people were asked about *gross*, *net* or *after tax* incomes, depending on the country[26]. In all cases, formulation remains the same in both questions (perceived income and desired income).

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[23]When missing answers are included, median desired range of incomes is around 13.

[24]Median desired tax rates for France 2009 from my method are -30% for 1100€ per month, -10% for 2000€, 0% for 4000€ and 35% for 12000€, which is not too far from current rates on net income: -12% for 1100€ (but this can reach -30% if one includes housing benefits), 7% for 2000€, 15% for 4000€ and 28% for 12000€.

[25]This restriction might even have been coded in the questionnaire.

[26]The formulation for each sample is given in `set_up.csv`, at the column *interpretation*.

This comforts the view *as additional rates*, because one compares the same notion of income, unlike in the interpretation as *current rates included*. However, average and median sensitivity of a country is significantly higher if formulation is *after tax*[27]. Given the small number of observations, this could be a spurious correlation (even more so that it does not hold for some other aggregate statistics), still, it suggests that allowing explicitly for taxes to play a redistributive role increases the redistributive nature of the answers. At the same time, people ask for more redistribution even when formulation is in *net* or *gross* terms, indicating that people want a substantial reduction of differences in income to occur before tax, and another redistribution to be insured *by* the tax.

To conclude, it seems fair to interpret *tax* as a call for additional tax rates, but this notion of "tax" has to be understood in a very large sense, inclusive of a redefinition of pre-tax earnings.

8   Plots by country and year

Now that difficulties have been resolved, let us look at desired taxation curves: like Singhal [2008], I present both average and median desired tax rates associated to each level of income. Actually, not only I compute running median rates, but also every running vintile[28]. Moreover, the specification chosen allows to compute tax rates for a wide range of incomes while Singhal's data gives only four points where to estimate tax rates. While I present many graphs in Appendix B and on-line[29], I explain in this section my methodology.

I have coded a function in Stata which plots a customizable graph of desired tax rates[30]:

```
Plot sample x_axis median quartiles vintiles average circles \\
    bandwidth_mean bandwidth_median min max outliers_bound exclude_outliers
```

plots the graph corresponding to designated `sample` (*i.e.* country and year), displaying activated[31] data within `median`, `quartiles`, `vintiles`, `average` and `circles` (the latter being a representation of raw data by circles whose size is proportional to the number of observations sharing its coordinates), with a logarithmic scale in abscissa, and with chosen characteristics for the computation of running average and quantiles and treatment of outliers (this is detailed in next subsections). Finally, perceived incomes are always given in annual terms, but 4 options are available for the choice of their unit, depending on `x_axis`:

1. `"rev"`: perceived income is simply expressed in Local Currency Unit (LCU)[32];

2. `"over_gnipc"` : perceived income is expressed in proportion to Gross National Income per capita[33];

3. `"dollar2005"`: perceived income is expressed in 2005 dollars[34];

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[27]Regressions are done in `country_comparison.do`.

[28]A *vintile* is a percentile multiple of 5: any distribution admits 20 intervals between its vintiles.

[29]desired-tax.shinyapps.io/shiny_app

[30]All programs and graphs are available on-line.

[31]An argument is activated if it is set to 1; it is disabled when set to 0.

[32]Raw data is in this case just converted when needed in annual value.

[33]Figures for GNI per capita (in current LCU) are those from the World Bank's World Development Indicators (*cf.* spreadsheet for more details).

[34]I convert an amount concerning year t in constant-dollars by multiplying local currency by cumulated American inflation (from t to 2005) divided by PPP conversion factor at t (*i.e.* LCU per international \$). All figures are taken from the World Bank (*cf.* spreadsheet). It would be interesting to compare my computations with the other possible way to make the conversion, which consists in inflating with local inflation and converting in dollar with 2005 PPP factors. There must be a difference between both, if only because of differences in the baskets of goods of reference used to estimate inflation in different countries.

4. "`percentile`": perceived income is replaced by its corresponding percentile of country's income distribution, thus giving a figure in $[0; 100]$[35].

Once `Plot` has been called, it saves its graph on the disk, in a folder whose name reflects the arguments passed to the program. For example,

`Plot 2502009 "dollar2005" 1 1 1 0 0 100 200 20 999 4 0` creates the file[36]

`Figures\dollar2005_m1q1v1a0c0bwM100bwA200t20_999o4e0\tFrance2009.png`

This graph, the running vintiles of desired tax in France for 2009, is shown in Figure 2 (250 is the code ISO 3166-1 for France).

My code is organized as follows: `prepare_desired_tax.do` merges raw datasets and uses the table of countries' parameters `set_up.csv` to create `desired_tax.dta`, which contains relevant and newly created variables. One can simply use **run.do** in order to plot new graphs, as this file calls other dependent files, notably `functions.do`, which contains all the programs.

8.1 Running quantiles

As tax rates have a natural upper bound at 1, and because of the presence of extreme answers (of, say, null tax for top incomes), median is presumably a preferable statistic to look at rather than average, for desired tax rates. But, to have a better knowledge of people's preferences, the best is to present the whole distribution of desired tax rates. This is why I choose to plot these rainbow-like graphs of running vintiles of desired tax rates. As Stata does not have a native function for running quantile, I have coded `Quantile_tax`, which takes two arguments: `bandwidth` and `percentile`, and defines for each country in the new variable tax_bwbandwidth$\_p$percentile the designated percentile of the distribution of desired tax rate, at regular intervals of perceived income distribution. The size of intervals is chosen so that there is at least `bandwidth` observations in each interval[37]. Running quantiles of tax are then computed over three intervals (except at extremities, where it is computed over one or two intervals): this is why the legend shows "band width $>= 600$ individuals" when one sets `bandwidth` to 200. The adequate figure for `bandwidth` depends on the sample size, but overall it seems than 200 is a good trade-off. For a purpose of readability, lower vintiles are often cut below a given threshold: actually, the minimum of y-axis is set to set at the minimum of the 20th. percentile (or at the minimum of the running average when appropriate). I choose not to display extreme vintiles, as they contain numerous outliers.

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[35]I estimate each distribution using the World Income Database for top incomes and Lakner & Milanovic [2015] data for the rest of the distribution. See Appendix A for a detailed explanation of the methodology.

[36]It also saves Stata graph (which is manipulable) in **Figures**\dollar2005_m1q1v1a1c0bwM100bwA200t20_999o4e0_gph\tFrance2009.gph

[37]The number of observations is not equal to `bandwidth` in each interval because data points are concentrated on round values. Hence, an interval has more observations if it contains a value concentrating more data points than `bandwidth`.

Figure 2 – Running distribution of desired tax rates, France 2009 (data: ISSP)
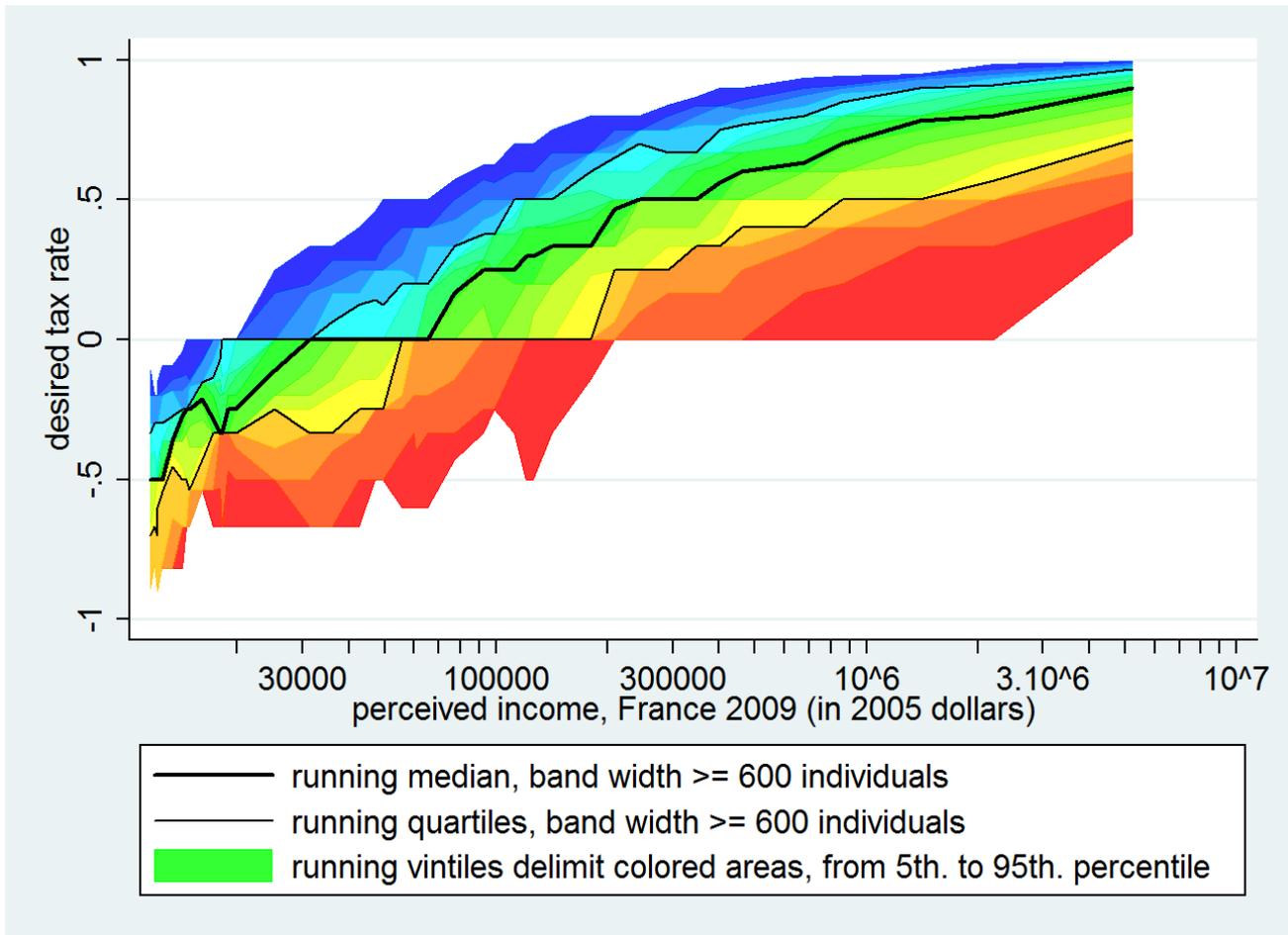
As one can see, French have a strong desire for redistribution, whether it be for low incomes (which are wished to be increased by 30 to 50%) or for top incomes (where desired maximum tax rate approaches 90%). Finally, one has to be cautious with the interpretation of the median desired tax rates: it does not correspond to the desired tax rate of the median voter. Actually, it is possible than no one supports median desired tax rates, *e.g.* because the population would be divided between conservatives, who do not want any additional tax for any income, and egalitarians, who seek a negative additional tax for low incomes and a positive one for high incomes: as the median is computed income by income, it does not capture the fact that nobody wishes a taxation curve with such an intermediate slope in this partitioned fictional society. In other words, a vintile of a given color does not correspond to one group of respondents, and the slope of any vintile is unlikely to reflect the favorite slope of the population.

8.2 Running average

I have been able to use a native function of Stata: `lpoly`, to compute weighted running averages. I have chosen the default value for the kernel function (which gives the weights): Epanechnikov. I usually choose the automatic value for the band width: I then set `bandwidth_mean` to 100 in `Plot`, as this argument is expressed in percentage of the automatic value. As there are many outliers, the display of running averages wouldn't be very informative if we were to include all original observations. As there are two types of outliers, one needs 4 parameters to treat them correctly while still preserving the maximum of information from raw data. At the bottom of distributions of perceived incomes, there are lots of ridiculously high values for desired income, leading to absurdly low values for the average tax (like -100), while at the top of the distributions, some perceived incomes are higher than all other of several orders of magnitudes. I logically treat these *x-axis outliers* by restricting the range of abscissas to [`min`; `max`], taking usually the values 20 (or 10) and 999 for these bounds, expressed in thousandth of perceived income distribution. If outliers are more frequent in the extremities of the x-axis, there are nonetheless some values for *tax* far below 0 in the middle of the graph[38]. I treat these *y-axis outliers* either by capping *tax* at $-$`outliers_bound` or by excluding values below this bound, depending on the activation of `exclude_outliers`. `outliers_bound` must be a non-negative integer; if it equals 0, *y-axis outliers* are included in the graph (and `exclude_outliers` has no effect). Finally, the minimum of y-axis usually coincides with the minimum of the running average, so that many circles — which stands for pairs of (perceived income, desired tax) — do not appear. I present hereafter the graph generated by `Plot 8402009 "rev" 1 0 0 1 1 100 200 20 999 4 0`, whose legend should now be understandable.

Figure 3 – Running average and median desired tax rates, USA 2009 (data: ISSP)

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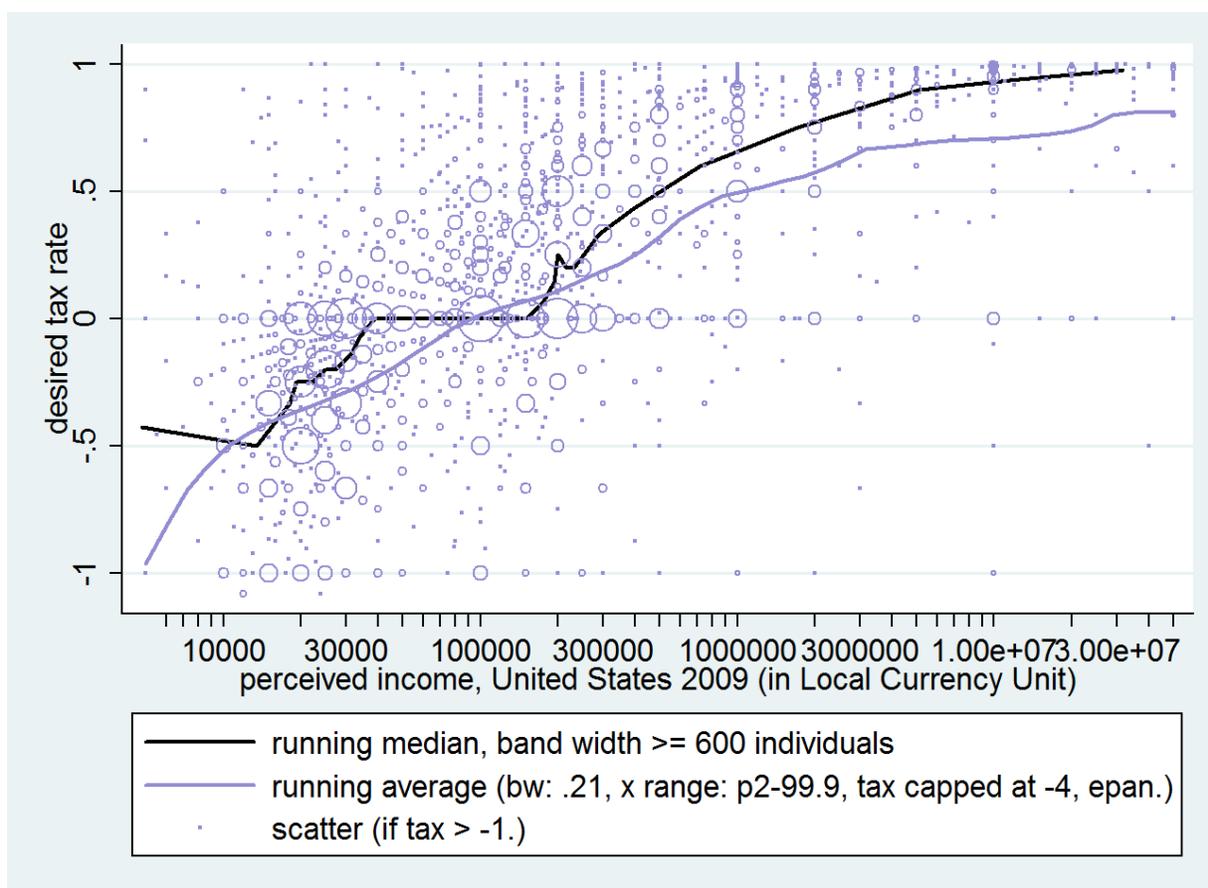
[38]The spreadsheet summarizes the number of outliers whose *tax* is below -4. The average proportion of such outliers in a sample is 0.87%, with only 6 samples for which the number of outliers is above 2%: these samples coincides with those exhibiting a preference for a massive increase of low wages (like Russia 1992 or 1999).

As one can see, desired tax rates are very similar for the United States and for France. Asymptotic *desired tax rates* for these two countries reach as much as 90%, indicating that their citizens would likely support top marginal income tax rates this high, as it was the case half a century ago. Moreover, running average is almost always below running median, because it is sensitive to remote values.

8.3   Comparisons of curves and smoothing

In this section, I compare on the same graph different curves, corresponding to desired tax rates for different groups of people. Before presenting an international and an inter-temporal comparison, I will show intra-country differences (or similarities) between demographic or social groups along the dimensions seen in the first part (gender, age, income, political leaning, marital status...).

I have coded the function `Plot_split` in Stata to easily generate different running medians on the same graph for the different categories of a given variable. `Plot_split` takes 5 arguments: `sample`, `x_axis`, `quartiles`, `bandwidth_median` and `variable`. To provide interesting information, the width of a plotted line is proportional to the proportion of its corresponding category in the sample. Like previously, the function saves the result: for example, the command `Plot_split 250 2009 "over_gnipc" 0 200 WRKST` has generated Figure 4 and saved the graph in `Figures\split_WRKST_over_gnipc_q0bw200\tFrance2009.png`.

Moreover, for aesthetical purpose, I have coded a function `Smooth`, automatically called by `Plot_smooth`, `Plot_split_smooth` and `Plot_samples_smooth`, to smooth curves using an appropriate running average. For example, running `Plot_split_smooth` instead of `Plot_split` for median desired tax for different working status in France in 2009, gives the result below. Most of graphs presented in the Appendix are smoothed.

Figure 4 – Running median desired tax rates for different working status, France 2009 (data: ISSP)

Figure 5 – *Smooth* running median desired tax rates for different working status, France 2009 (data: ISSP)
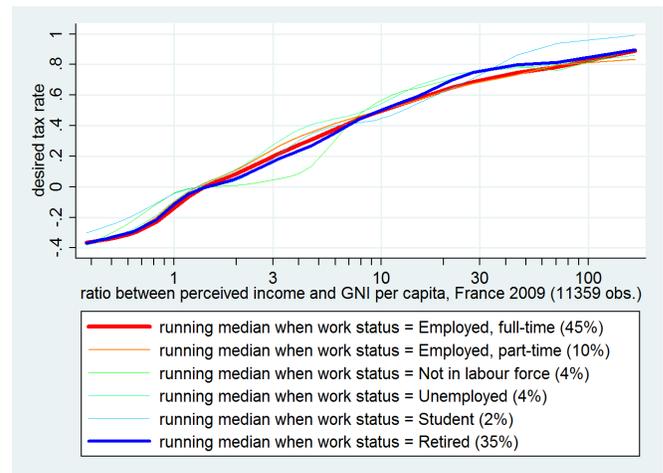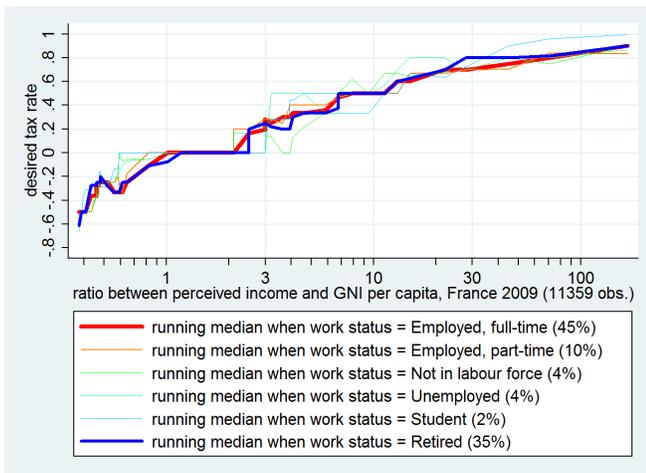
Figure 8 – Running median desired tax rates for different incomes, France 2009 (data: ISSP)
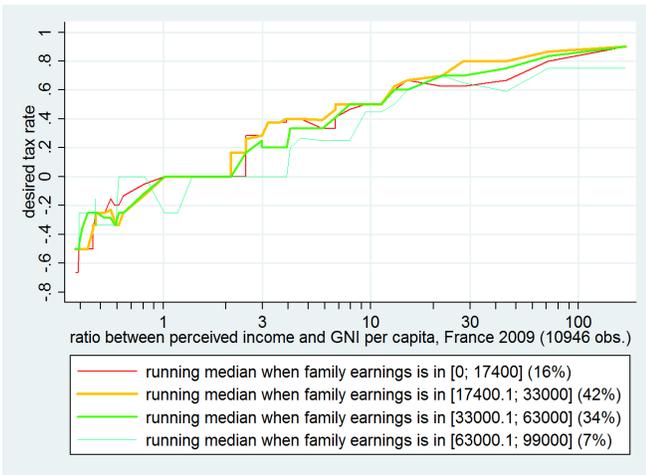
Figure 9 – Running median desired tax rates for different political leaning, France 2009 (data: ISSP)
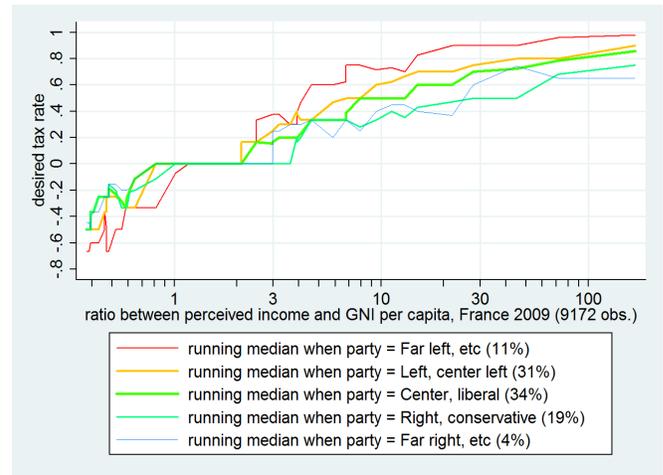
Figure 6 – Running median desired tax rates for different ages, France 2009 (data: ISSP)
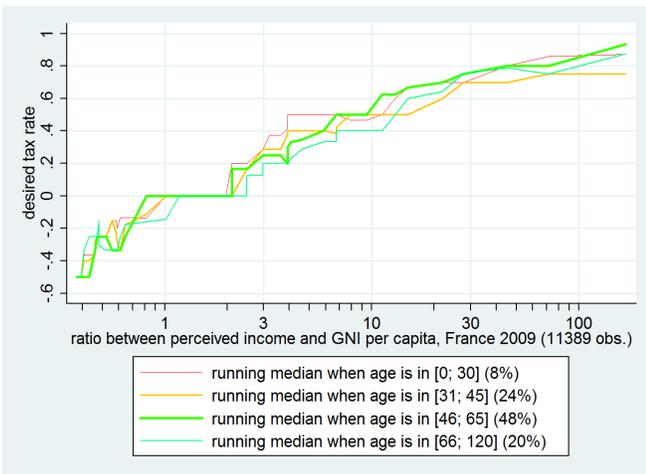
Figure 7 – Running median desired tax rates for different degrees, France 2009 (data: ISSP)
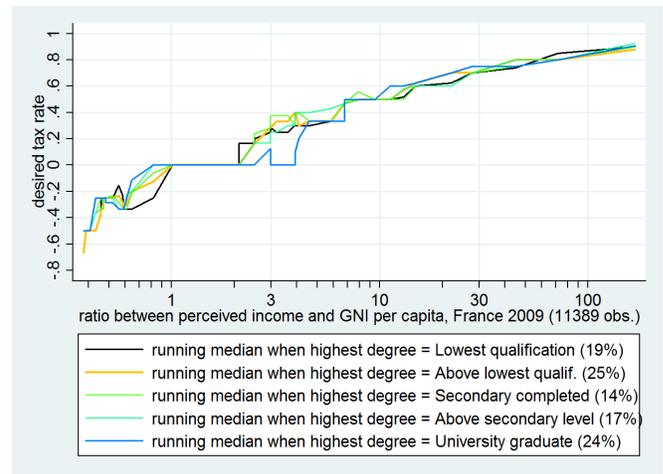
Figure 10 – Running median desired tax rates for different males and females, France 2009 (data: ISSP)
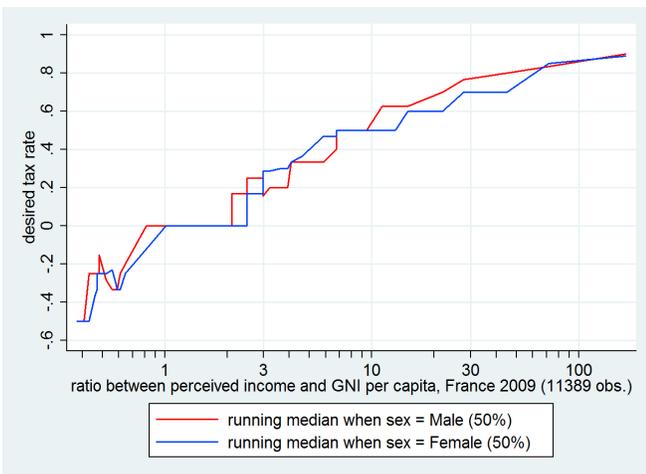
Figure 11 – Running median desired tax rates for different sizes of town, France 2009 (data: ISSP)
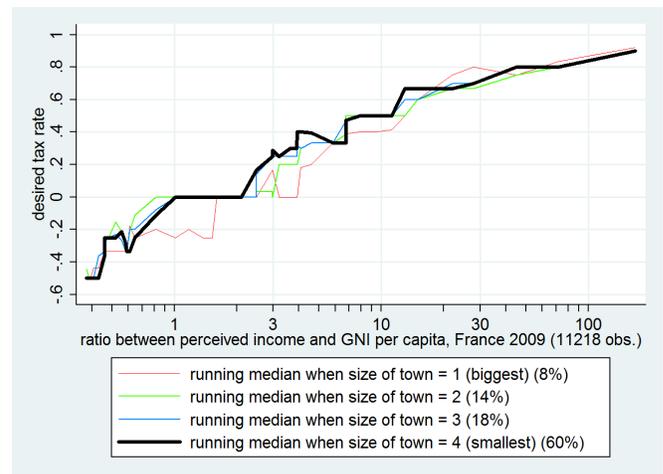
I have coded another function, `Plot_samples`, which plots on the same graph the running median of a list of samples passed in arguments. As it works similarly to previous ones, I will skip the details of the code and go straight to the interpretation of the graphical examples given. Figures 12 and 13 show that although desired tax rates remain roughly the sames over two decades in Poland in constant dollars, they increase for any given income expressed in proportion to average national income. One could then think that formation of preferences for redistribution depends on purchasing power rather than on one country's income, but this view is contradicted by the evolution of Chinese preferences shown on Figures 14 and 15: while this country's desired tax (for low and middle incomes) is similar to others' in proportion to its own average income, it is well above in constant dollars. A more satisfactory explanation (in line with insights of the first part as well as knowledge from psychology and economics of well-being) is that preferences are formed upon one's information about inequalities: arguably, a Polish in 1992 had better consciousness of Western standard of living than a Chinese in 2009. Hence, although each of them wants to attain the level of income to which they compare, the latter has more conservative aspirations for low incomes because they must compare to Asian standards rather than Western ones.

Figure 12 – Running median desired tax rates for Poland at different dates, in proportion to GNI pc (data: ISSP)
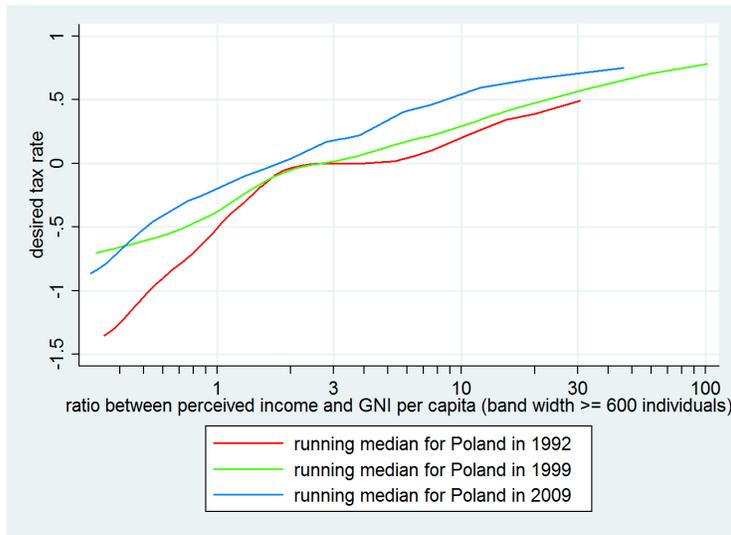
Figure 13 – Running median desired tax rates for Poland at different dates, in 2005 dollars (data: ISSP)
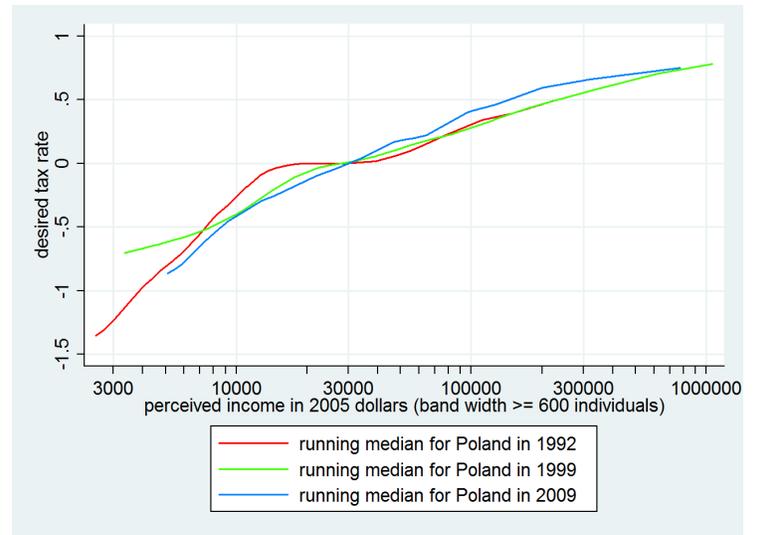
Figure 14 – Running median desired tax rates for different countries in 2009, in proportion to GNI pc (data: ISSP)
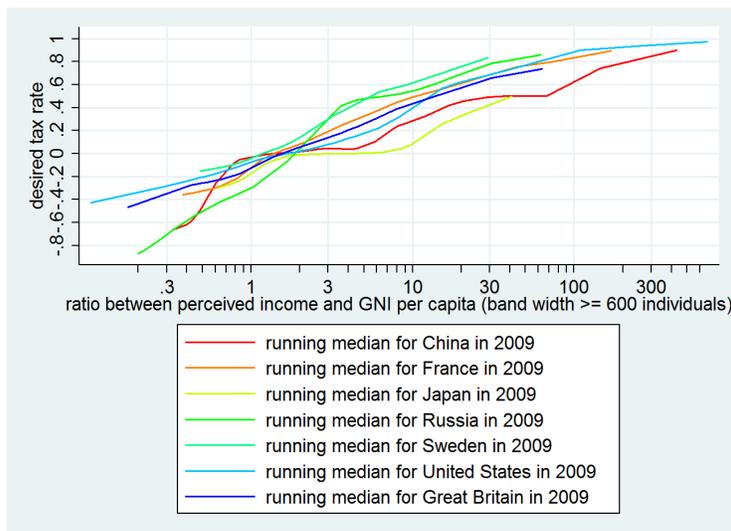
Figure 15 – Running median desired tax rates for different countries in 2009, in 2005 dollars (data: ISSP)
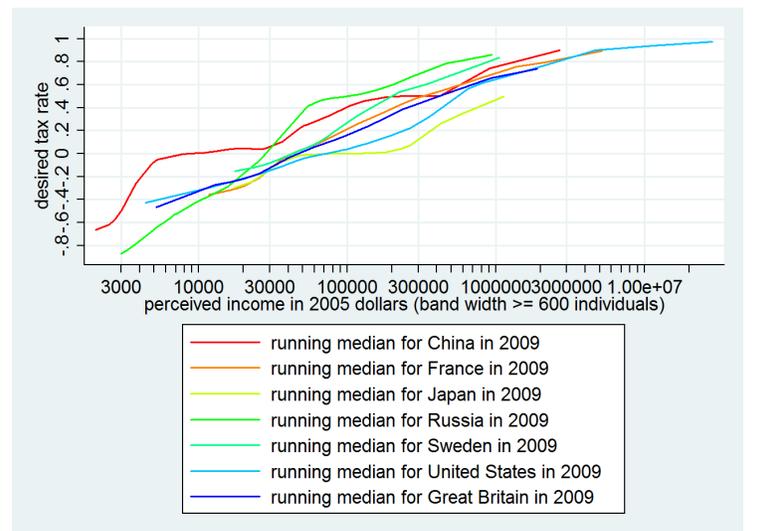
Part III
International comparison

While in the first part national determinants for preferences over distribution were extensively described, it is now time to present differences across samples, the main source of variability. We first need to define the variables of interest before analyzing and presenting the results. But beforehand, let us present global results.

9 Global results

I have coded the program `Plot_world_smooth` to generate graphs of desired tax for the whole dataset[39]. With this program, running average and vintiles can still be computed in function of the percentile of (national) income distribution or in function of income expressed in proportion to GNI per capita, but then results are aggregated for all observations. For example, the running median tax in function of percentiles is the running median of all observations of *tax* such that associated perceived income is in a given interval of percentiles. Hence, medians are not computed over the same groups of observations whether income is expressed in 2005 dollars, in proportion to GNI pc or in percentile of income distribution (contrarily to sample estimations, for which these three options consist only in a deformation of the abscissas). Thus, let us present the three cases.

Figure 16 – Running median desired tax rates for all dataset, in function of countries' percentiles of income distribution
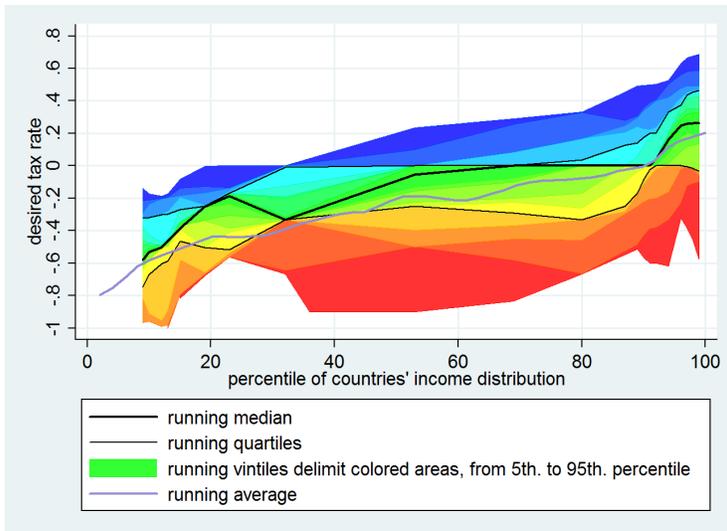
Figure 17 – Running median desired tax rates for all dataset, in proportion of GNI pc (data: ISSP)

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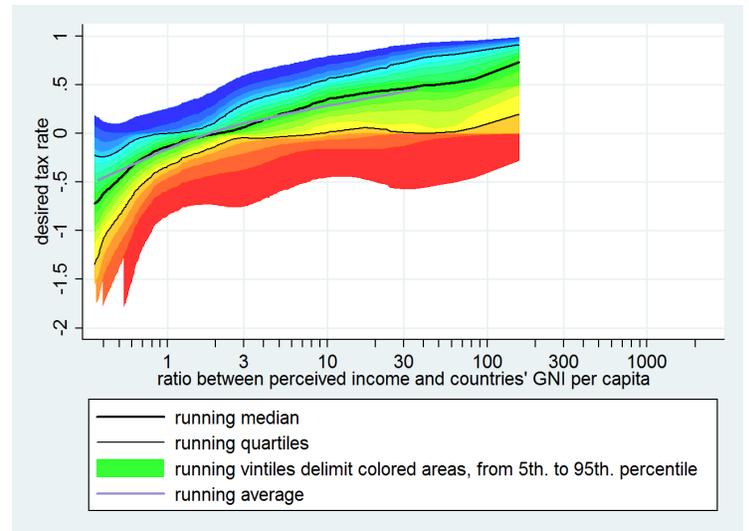
[39]Observations from Poland and Netherlands 1987 and the lowest vintile of perceived income – mainly from Russia 1999 – have been omitted, respectively for lack of reliability concerning estimates of exchange rates and for lack of representativity.

Figure 18 – Running median desired tax rates for all dataset, in 2005 dollars (data: ISSP)
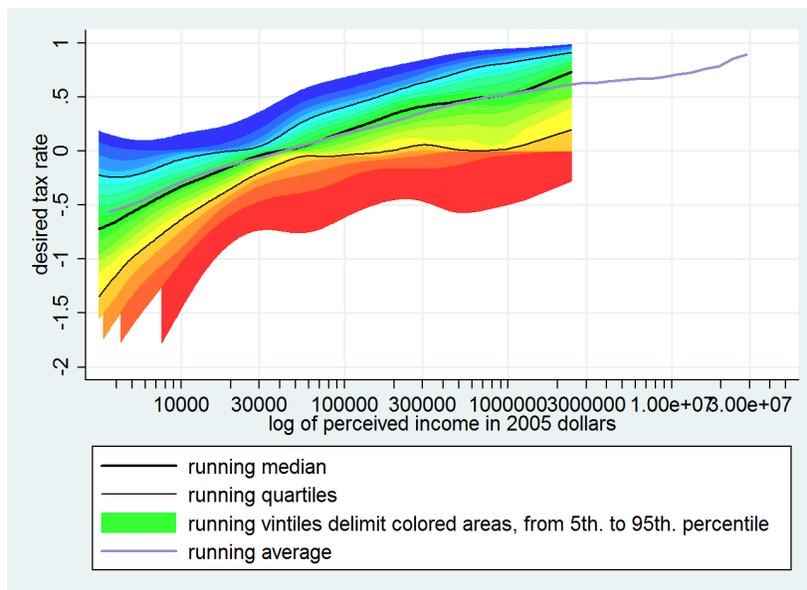
Although the graphs above do not take into account population of countries, allocating the same weight to any observation of the dataset (be there in China or in Iceland), allowing for country weights does not change the picture that much, as one can see below, even if China represents by itself one third of the points.

Figure 19 – Running median desired tax rates for all dataset, in function of income in 2005 dollars, non weighted (data: ISSP)
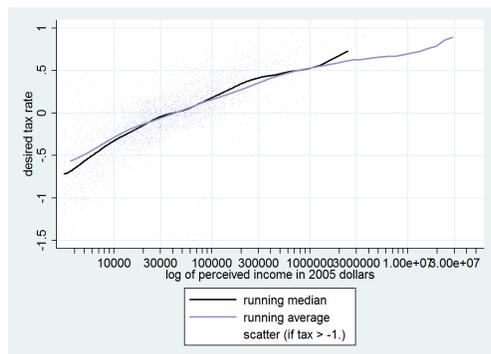
Figure 20 – Running median desired tax rates for all dataset, in 2005 dollars, weighted by countries' population (data: ISSP)

This lack of influence of population weights is a clue indicating that global preferences are not so far from sample ones. Indeed, the average absolute deviation of *tax* from the running median desired tax on the whole dataset, 0.297, is quite close from the average absolute deviation of *tax* from national running medians, 0.267[40]. This shows that, even if samples are significantly correlated with distributive tastes, these tastes are largely shared across countries.

[40]The computation can be found in `run.do`, it consists in comparing deviations of *tax* from global and national predictions, based on perceived income expressed in 2005 dollars, after excluding outliers. These figures should be compared to the average absolute deviation of *tax*: 0.371.

10   Indicators of redistributive preferences

10.1   Benchmarks

From perceived and desired wages of diverse professions, one can measure in many different ways redistributive tastes of a sample. Some variables are necessarily computed using the whole sample; on the contrary, some indicators can be defined from any individual's answers: our indicator of interest is then the median value in the sample for this variable. I will first list this last type of variables:

- *Tax max*: maximum desired tax across professions, formally: $tax\ max = \max\limits_{job} \{tax_{job}\}$[41];

- *Rise max*: maximum desired increase of wage: $rise\ max = -\min\limits_{job} \{tax_{job}\}$;

- *Desired wage ratio*: ratio of desired high and low wages of given professions: formally, $log\ desired\ wage\ ratio = \log_{10}\left(\frac{\sqrt{desired\ rev_{CEO} \cdot desired\ rev_{minister}}}{desired\ rev_{unskilled\ worker}}\right)$. Aggregate results are not expressed in log terms but rather as $desired\ wage\ ratio_{sample} = 10^{\widehat{log\ desired\ wage\ ratio}}$, where $\widehat{\cdot}$ designates the median operator on the sample;

- *Contraction*: desired contraction of the salary scale: $contraction_{sample} = 10^{\widehat{sensitivity}}$, where $\widehat{\cdot}$ designates an aggregate operator: either the median, the average or the average weighted by demographic weights (*cf.* Section 2 for definition of *sensitivity*);

- *Desired gap*: highest ratio between desired wages: $desired\ gap = \frac{\max_{job}\{desired\ rev_{job}\}}{\min_{job}\{desired\ rev_{job}\}}$. As its correlation with *desired wage ratio* is very high (.89), there is no need to show the results: it is enough to report that *desired gap* ranges in 75% of cases between 1 and 2 times *desired wage ratio*.

10.2   Robustness check

Desired gap and *desired wage ratio* are very similar indicators: thus, the former can be justified as a robustness check for the results of the latter. Likewise, one would like to check robustness of results for *rise min* and *tax max*. This is why I define *tax job min* and *tax job max*: whereas *rise max* and *tax max* correspond to individuals' extremal values for desired change in wage among professions; those variables refer instead to the same profession for anyone in the sample: the profession with respectively the lowest and highest median *tax* in the sample. Hence, only 47% (resp. 53%) of individuals desire extremal changes for the same profession as their sample's predominant choice. By the way, *job min*[42] (resp. *job max*), the lowest (resp. highest) desired taxed profession of the sample, varies across samples, depending on what professions were included in the questionnaire as well as sample specific perceptions: one can see in the spreadsheet (in the tab `job summary`) that it is as frequently equal to "farm worker" as to "unskilled worker" (resp. as much "minister" as "CEO"). Furthermore, *desired job ratio* is an additional indicator similar to *desired wage ratio*, defined only at the sample level: it is the ratio of median desired incomes for extremal jobs in the sample.

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[41] I recall that $tax = \frac{perceived\_rev - desired\_rev}{perceived\_rev}$.

[42] Formally, $job\ min_{sample} = \arg\min\limits_{job}\left\{\widehat{tax_{job}}\right\}$ and $tax\ job\ min = tax_{job\ min_s}$ (where *sample* is abbreviated by *s*), and similarly for *job max*.

Formally, $desired\ min_{sample} = \min\limits_{job} \left\{ \overbrace{desired\ rev_{job}} \right\}$ and $desired\ job\ ratio_s = \dfrac{\overbrace{desired\ max_s}}{\underbrace{desired\ min_s}}$. As expected, aggregate sample value for *tax job min* (resp. *tax job max* and *desired job ratio*) is highly correlated with sample value for *rise max* (resp. *tax max* and *desired wage ratio*): their correlation equals -0.95 (resp. $.82$ and $.86$)[43]. As there is nothing surprising in the results for these indicators, I will not report them.

10.3 Desires vs. reality

Finally, two sample aggregates are of high interest: the budgetary cost C and the transfer of income from rich to poor T implied by the desired (running median) distribution of incomes. They are expressed in proportion to Gross National Income, and writes formally:

$$C = \frac{\int_0^1 \left(\overbrace{c^+\left(c\left(q\right)\right)} - c\left(q\right) \right) dq}{GNIpc} = \frac{\int c^+ - c}{GNIpc}$$

where q is the quantile of the income distribution, c is the current disposable income (*i.e.* the *perceived* income) and c^+ is the desired corresponding income. Assuming that desired and current distributions cross only once, for $q = n$ (which is observed in practice), one defines:

$$T = \frac{\int_{q \geq n} c - c^+}{GNIpc}$$

These two aggregates synthesize the characteristics of the median income distribution desired in a sample: while C indicates the overall dissatisfaction with current national income, T expresses the extent of redistribution citizens wish. They are somewhat comparable to Guillaud's *level of tax* and *progressivity*. The averages (resp. standard deviations) of C and T are respectively 14% (51%) and 8% (6%). Unfortunately, one has to be very prudent while comprising estimates of C and T because they are results of sophisticated computations with lots of margins of error at every stage. These imprecisions are notably found in the uncertainty concerning the interpretation of reference questions and in the data for income distribution (the latter is not perfectly reliable — *cf.* Appendix A, and is not available for all samples, hence some values of C and T are missing). Nonetheless, they summarize in a useful way graphs of desired and current income in terms of percentiles, like Figure 21, because they are understood straightforwardly as areas between desired and current incomes.

Furthermore, in order to measure *gap G* (resp. *distance D*) of desired distribution to reality, one should look at the value of the norm L^1 (resp. L^2) of the difference between desired and current incomes:

$$\begin{aligned} G &= \left\| c^+ - c \right\|_1 = C + 2T \\ D &= \left\| c^+ - c \right\|_2 \end{aligned}$$

As G can be easily computed from C and T, I will not report their values. As for D, it would certainly overload an already informative picture to show them, so I will not report them either.

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[43] *cf.* `country_comparison.do`

Figure 21 – Current and median desired distribution of income, Sweden 1992 (data: ISSP)
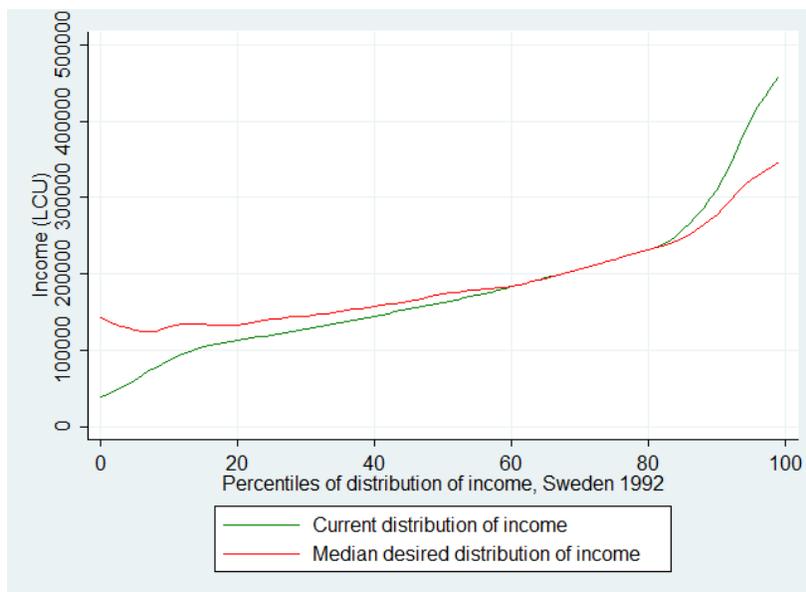
Finally, to complete the characterization of median desired taxes, 4 parameters are keys, that one can see on graphs in terms of percentile: *min tax* and *max tax*, the asymptotic values for median desired tax[44], and *advantage* (resp. *disadvantage*), the proportion (in percents) of the income distribution associated with negative (resp. non-positive) median desired tax. *Advantage* should be understood as previously defined n, which is the point below which $c^+ > c$, while *disadvantage* corresponds to the point above which $c^+ < c$. Logically, $c^+ = c$ on $[advantage; disadvantage]$.

11 Evolution

In the first part, we have seen that sensitivity to inequalities rose steadily from 1987 to 2009, driven by the rise of perceived inequalities. Now that we dispose of many more indicators, let us have a deeper look at the evolution of distributive tastes. As the set of available countries varies a lot depending on the wave of the survey, and given the importance of country fixed effects, it can be misleading to compare directly the average value of, say, *rise max* between 1987 and 2009. However, choosing to look at the evolution of indicators only for countries present in all waves is also problematic, as only 6 countries respect this criterion. Two methods can then be used to study the evolution of our indicators: run regressions in order to compare wave dummies (*cf.* `perceptions.do`), or look at the evolution between only two waves so that the number of countries present in both waves is substantial (*cf.* `country_comparison.do`). Fortunately, all methods give similar results: overall, preferences are increasingly in favor of redistribution. I present hereafter as an example the evolution of the desired decrease of highest incomes, *max tax*. One can see how important the rise in preferences for redistribution can be when looking at these figures, as *max tax* rose on average from 39% in 1987 to 62% in 2009. As a robustness check, when one compares

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[44]In practice, these values are computed as median desired tax for lowest and highest vintile of distribution of *perceived* income. *Min tax* (resp. *max tax*) is very close to *rise max* (resp. *tax max*): their correlation is -.93 (resp. .79), while its average value, -.68 (resp. .52) does not depart much from *rise max*'s .72 (resp. *tax max*'s .44).

the average evolution of *max tax* on the same set of countries, it is still rising sharply: from 39% in 1987 to 76% in 2009 for countries present in these two waves, from 49% in 1999 to 66% in 2009 if one considers countries of the 1999 and 2009 waves, or from 36% in 1987 to 77% in 2009 if one restricts to the 6 countries present in all waves.

Figure 22 – Evolution of desired increase of highest incomes (*max tax*: asymptotic *additional* tax rates; data: ISSP)
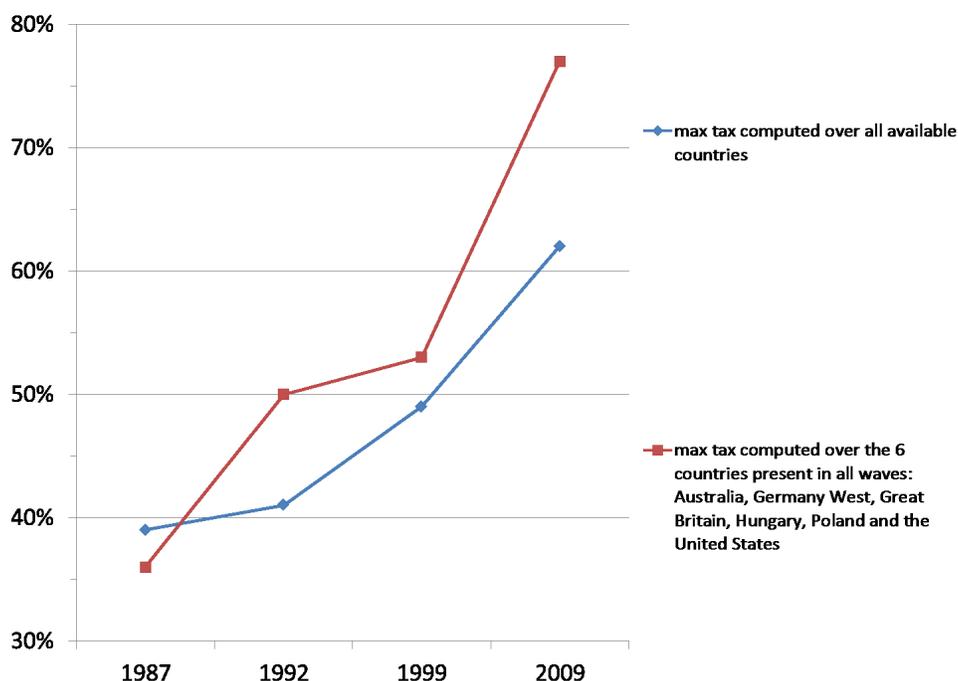
12   Summary of sample preferences

Results of sample preferences are presented hereafter: first, one variable at a time in 8 Figures comparing countries' preferences, and then, in a summary table. Instead of paraphrasing the figures below, I will give a clue of what determines a country's population to be more pro-redistribution than another.

When looking at the correlation matrix of all sample characteristics in terms of inequality, income and preferences, one result is clear: richer countries want higher taxes for high incomes and greater redistributive transfer T whereas poorer countries want higher average consumption C and higher increase of low incomes (see Figure 23). One can check in country_comparison.do that coefficients of linear regressions of *rise max* and *tax max* by GNI per capita in constant dollars are all significant at the 1% level. However, one has to remind that our dataset does not include many poor countries (the poorest being Bulgaria, China, Hungary, Philippines, Russia and Ukraine). The result could have been driven by ex-URSS countries, but including a dummy for these countries and dummies for survey waves do not impact their significance (even if *exURSS* is significantly correlated with those variables).

Another correlate for preferences for redistribution is the extent of inequalities, measured by

the share of the top 1% or, preferably, by the Gini coefficient. They are all significantly correlated with *desired gap* and *desired wage ratio* (*cf.* Figure 24), arguably because a population facing a lot of inequalities is less demanding concerning the limitation of income differences in absolute terms.

Figure 23 – Linear cross-country regression of desired rise of low wages and GNI pc (data: ISSP& World Bank)
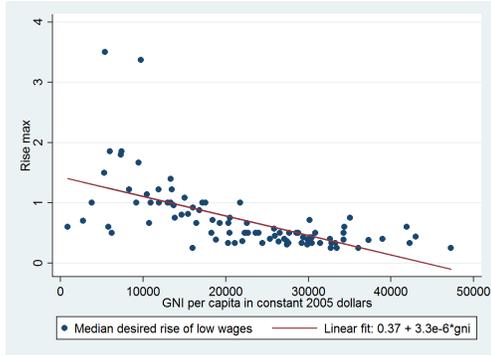
Figure 24 – Linear cross-country regression of desired maximal gap between wages and Gini (data: ISSP & World Bank)
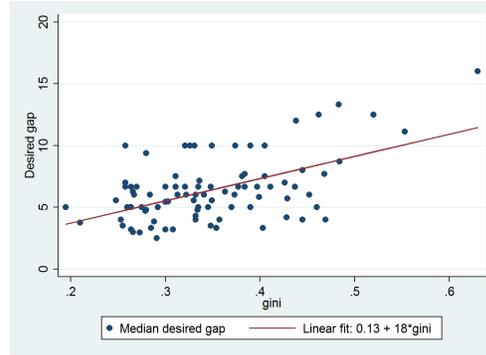
Finally, contrarily to Guillaud's result for *level of tax* and *progressivity*, C and T are *negatively* correlated. This is actually consistent and can be understood as follows: a bigger transfer T automatically reduces budgetary cost C, implying a negative correlation; on the other hand, *those who want more progressivity also desire more taxes* (on average), probably for ideological reasons: while the former is a correlation at the country level, the latter concerns the individual level. Indeed, when looking at the individual level, desired *average tax* is significantly correlated with *desired gap* and *max tax*, in the same direction than what Guillaud found with her similar variables (see `perceptions.do` for the precise figures).

Figure 25 – Median desired gap between highest and lowest wages (data: ISSP)
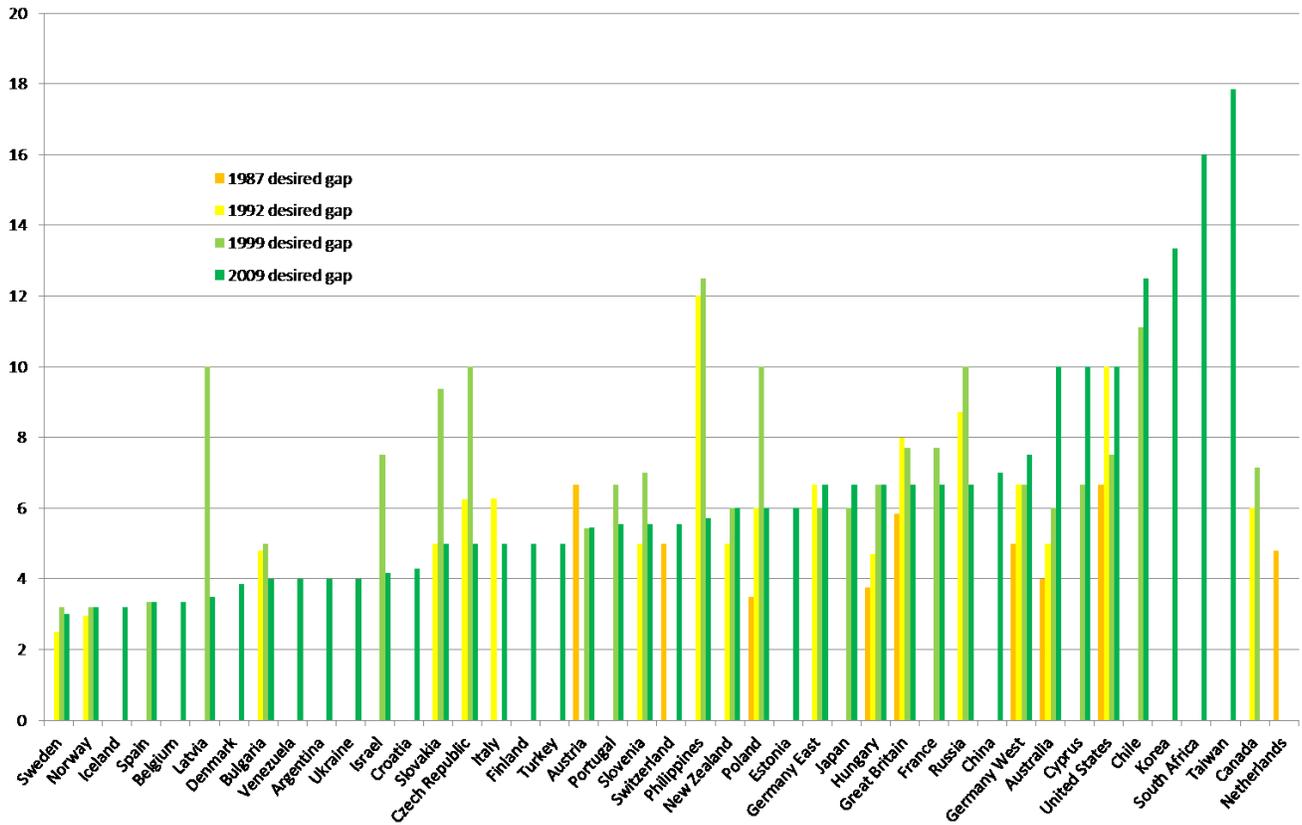
Figure 26 – Median desired wage ratio: ratio between high wages and low wages (data: ISSP)
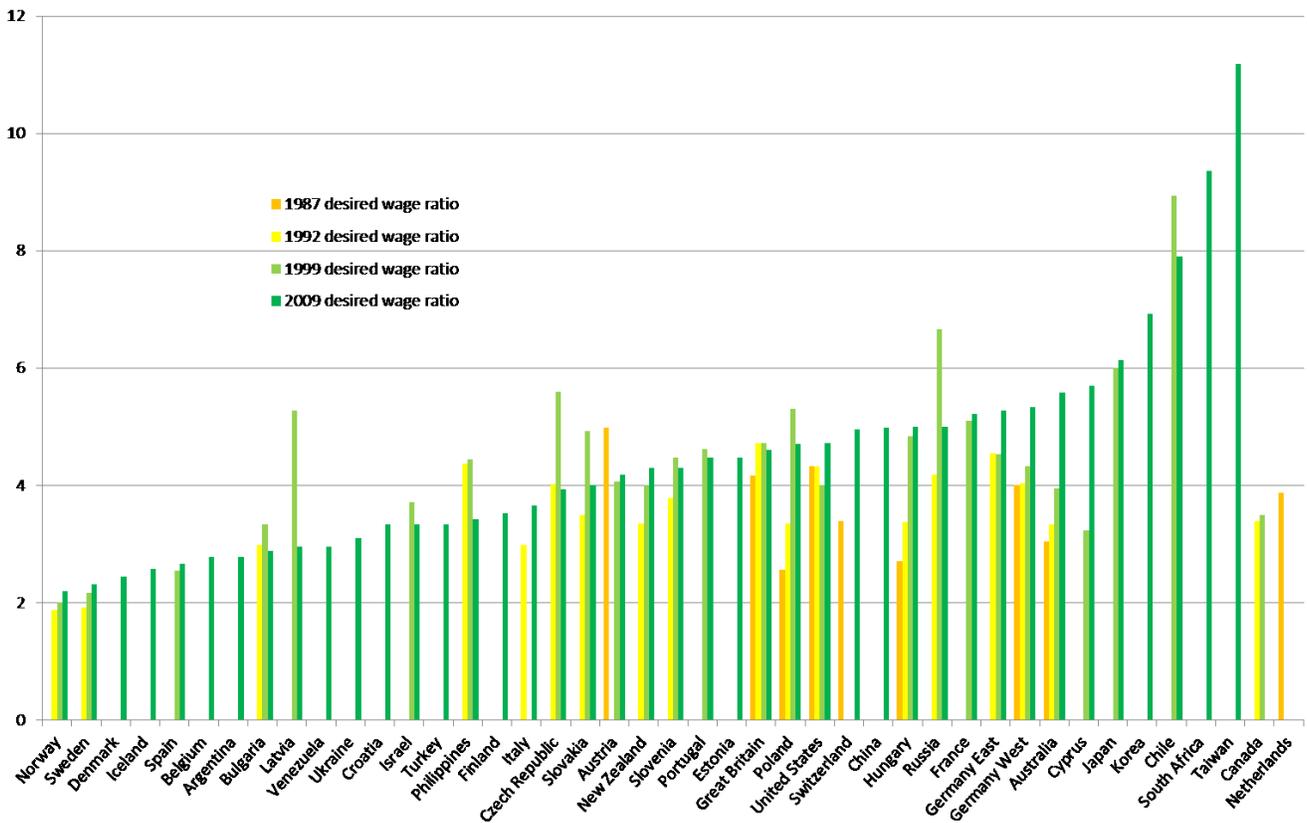
Figure 27 – Desired contraction of the salary scale (median) (data: ISSP)
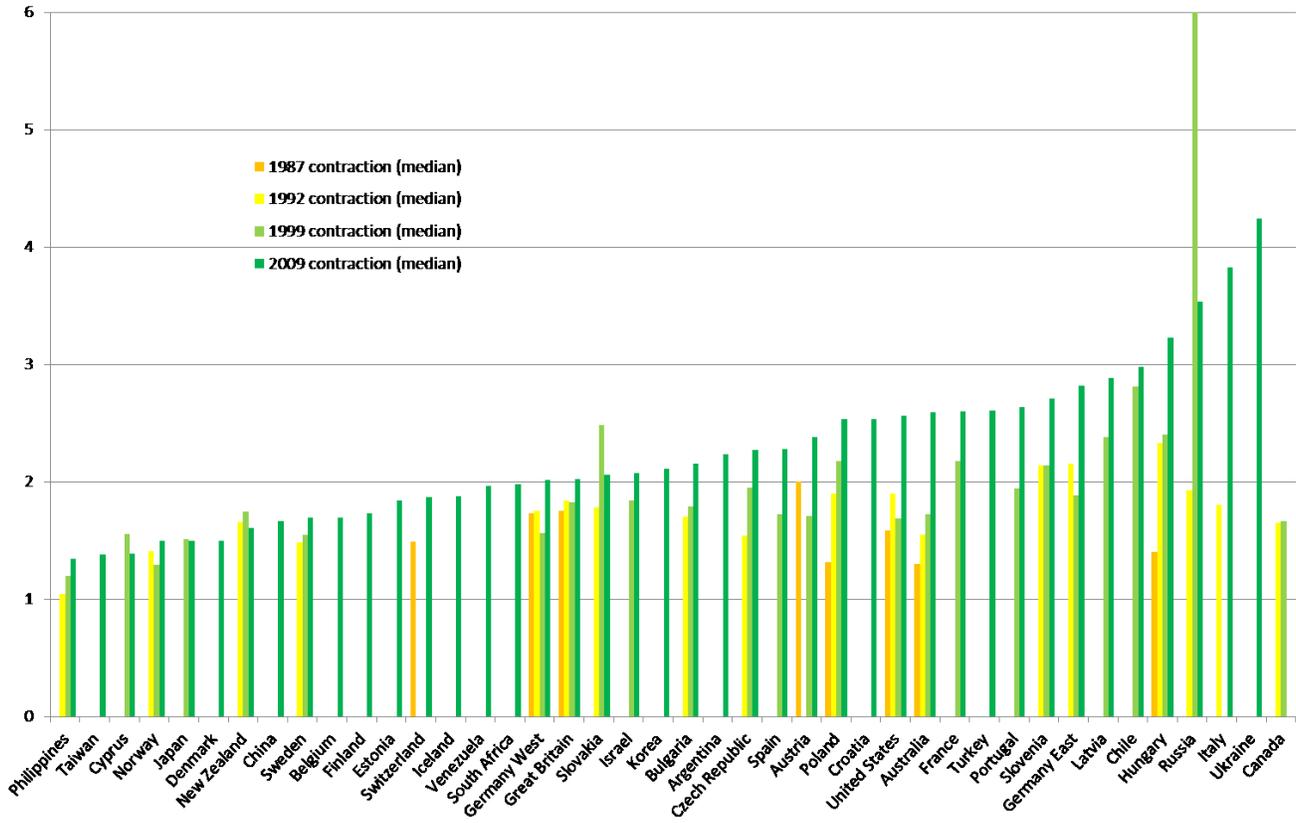
Figure 28 – Median desired rise of low wages (in proportion to them) (data: ISSP)
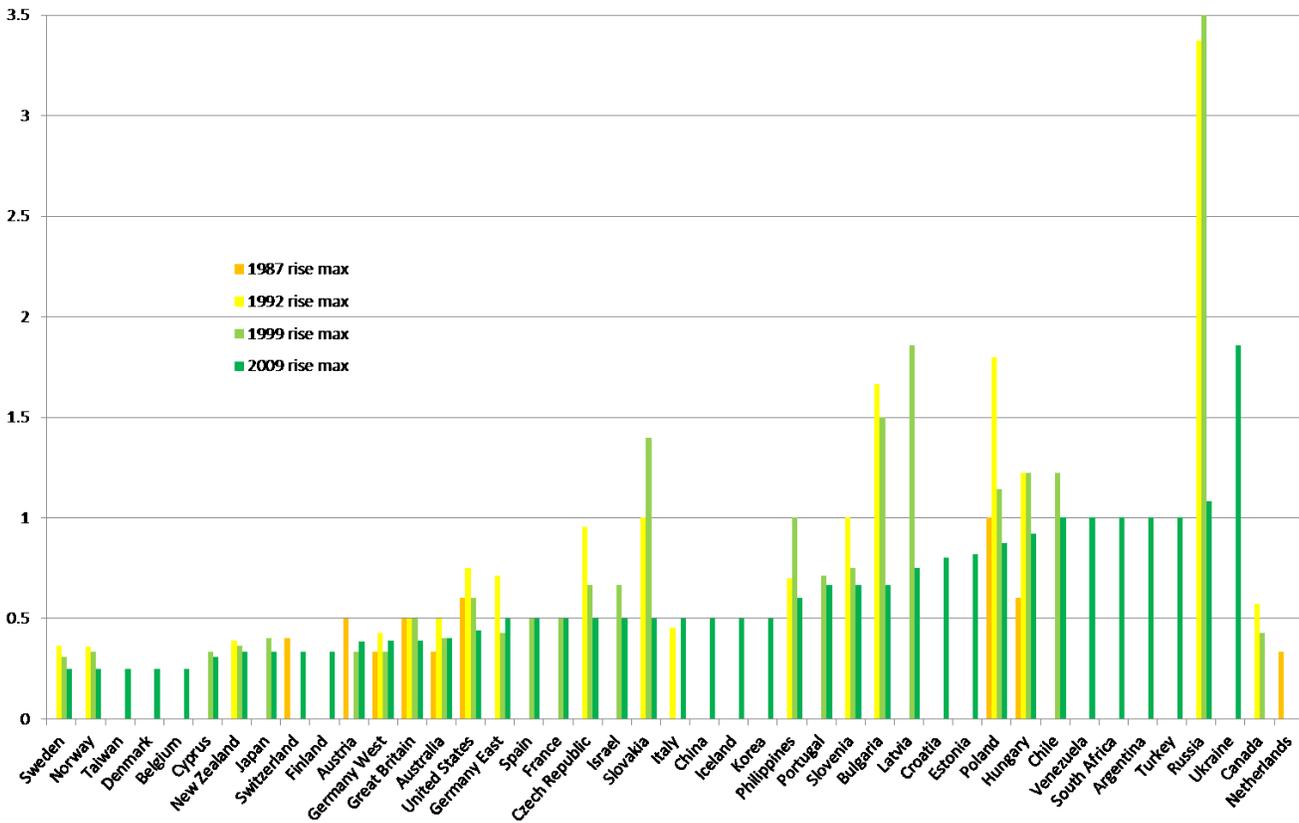
Figure 29 – Median desired *additional* tax on high wages (data: ISSP)
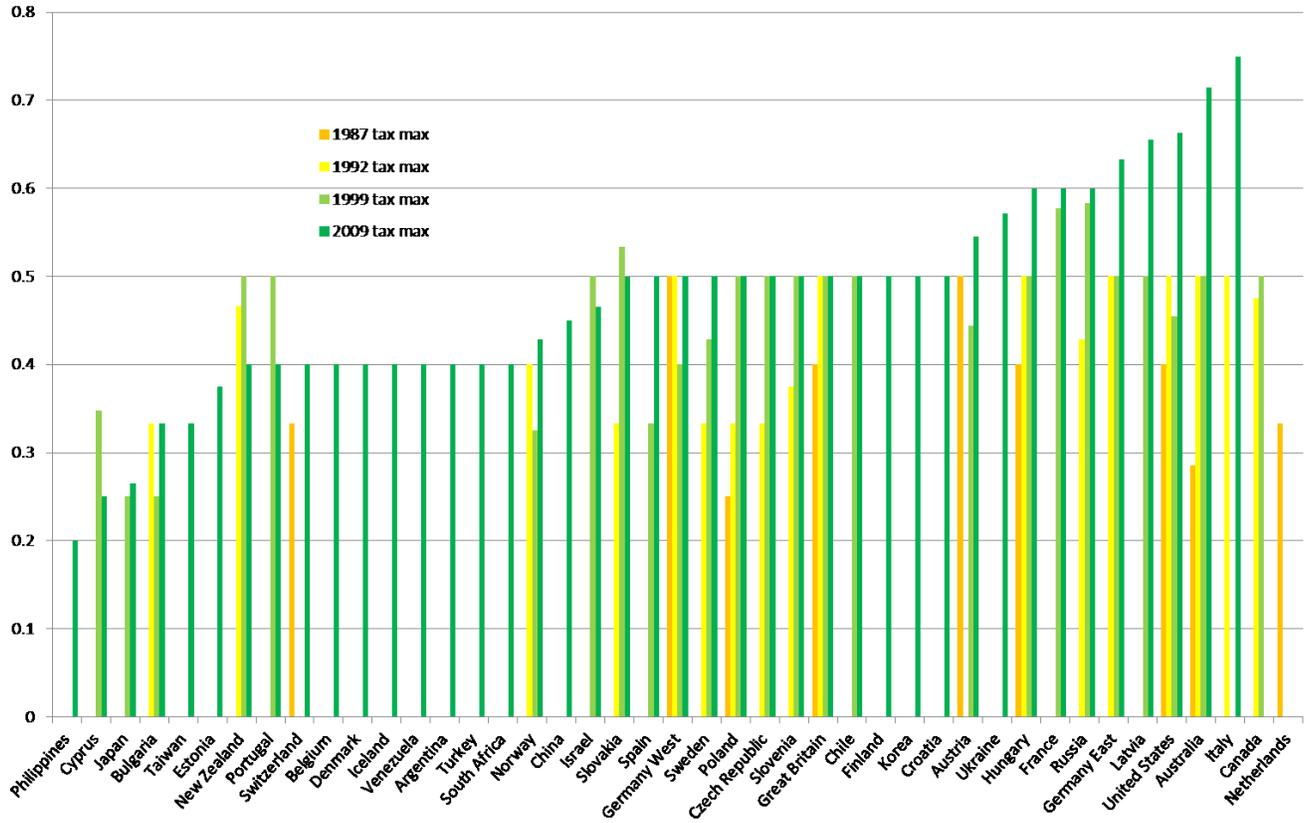
Figure 30 – Median desired top tax rate (data: ISSP)
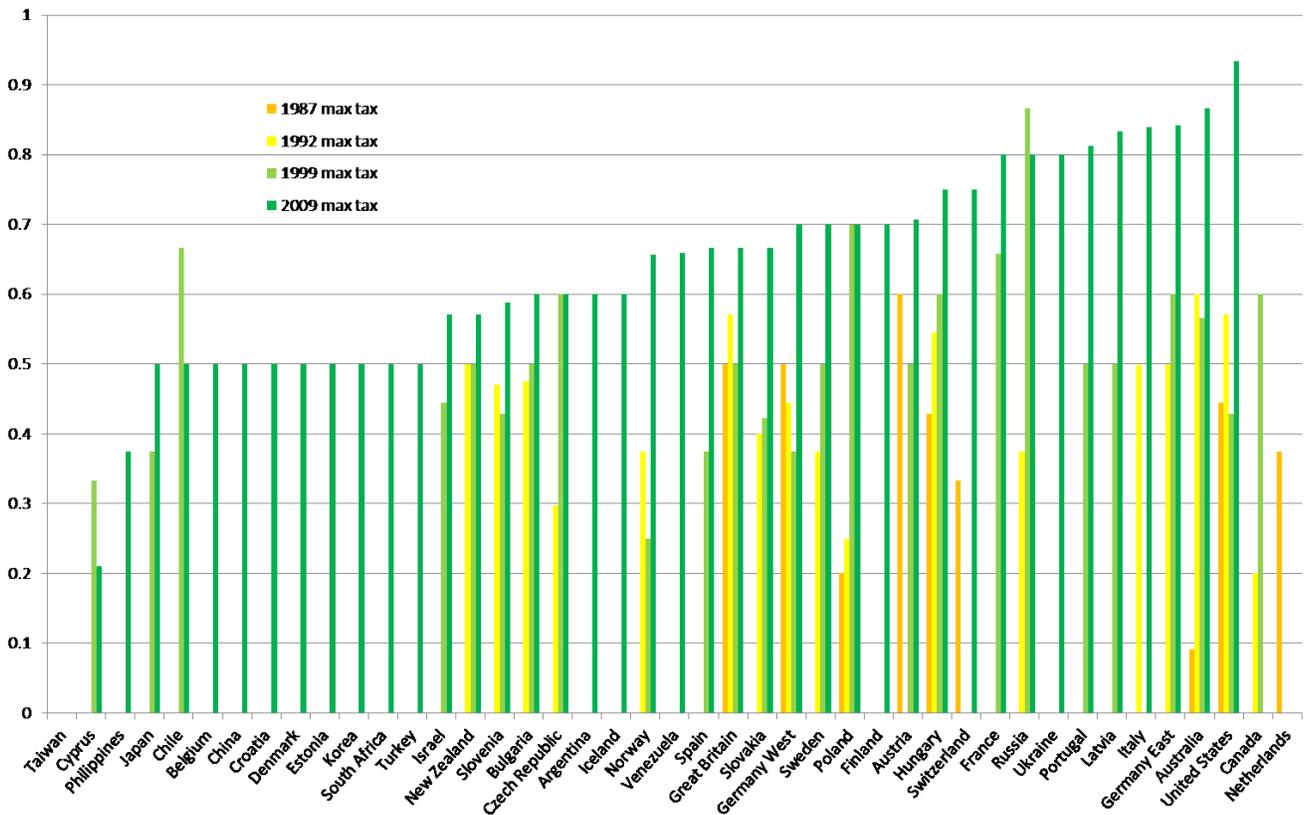
Figure 31 – Budgetary Cost implied by median desired redefinition of wages, in proportion to GNI (data: ISSP)
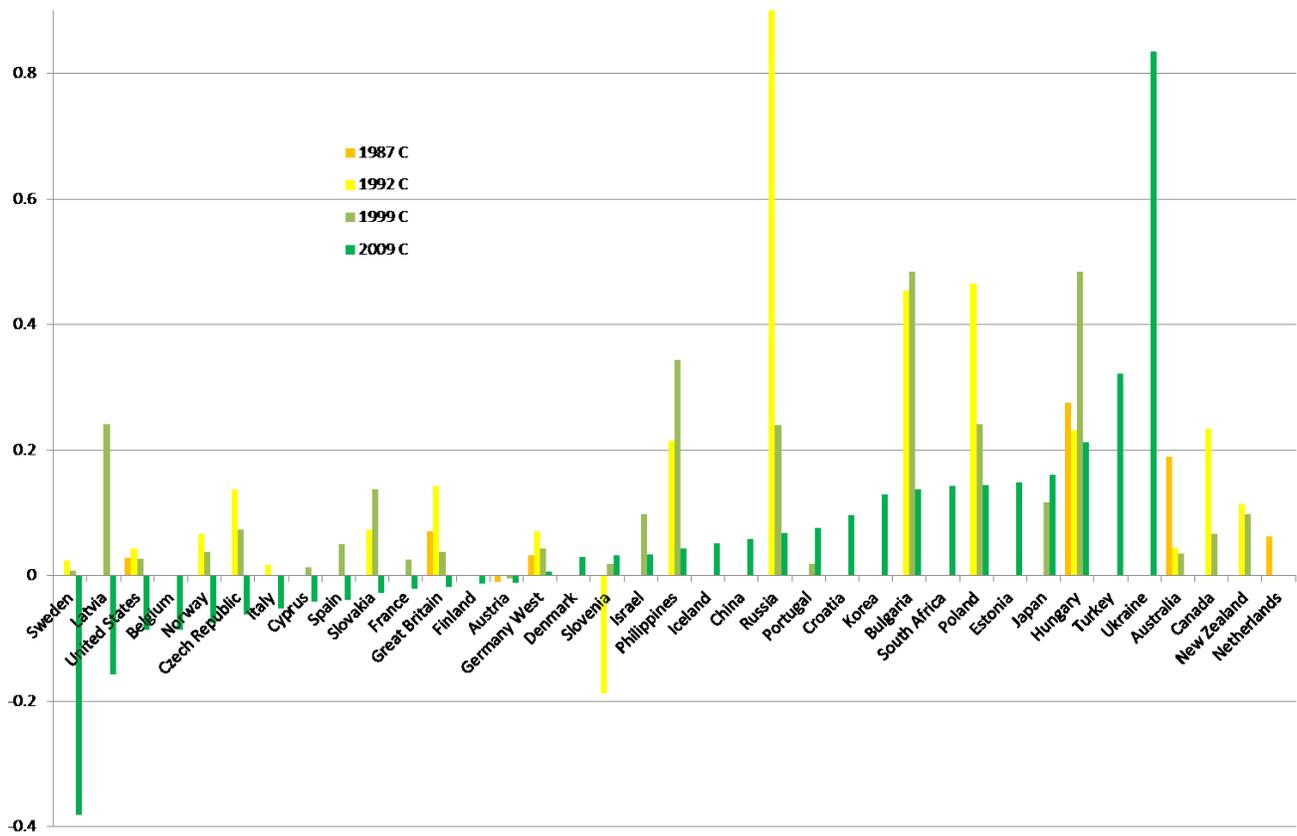
Figure 32 – Transfer from rich to poor implied by median desired redefinition of wages, in proportion to GNI (data: ISSP)
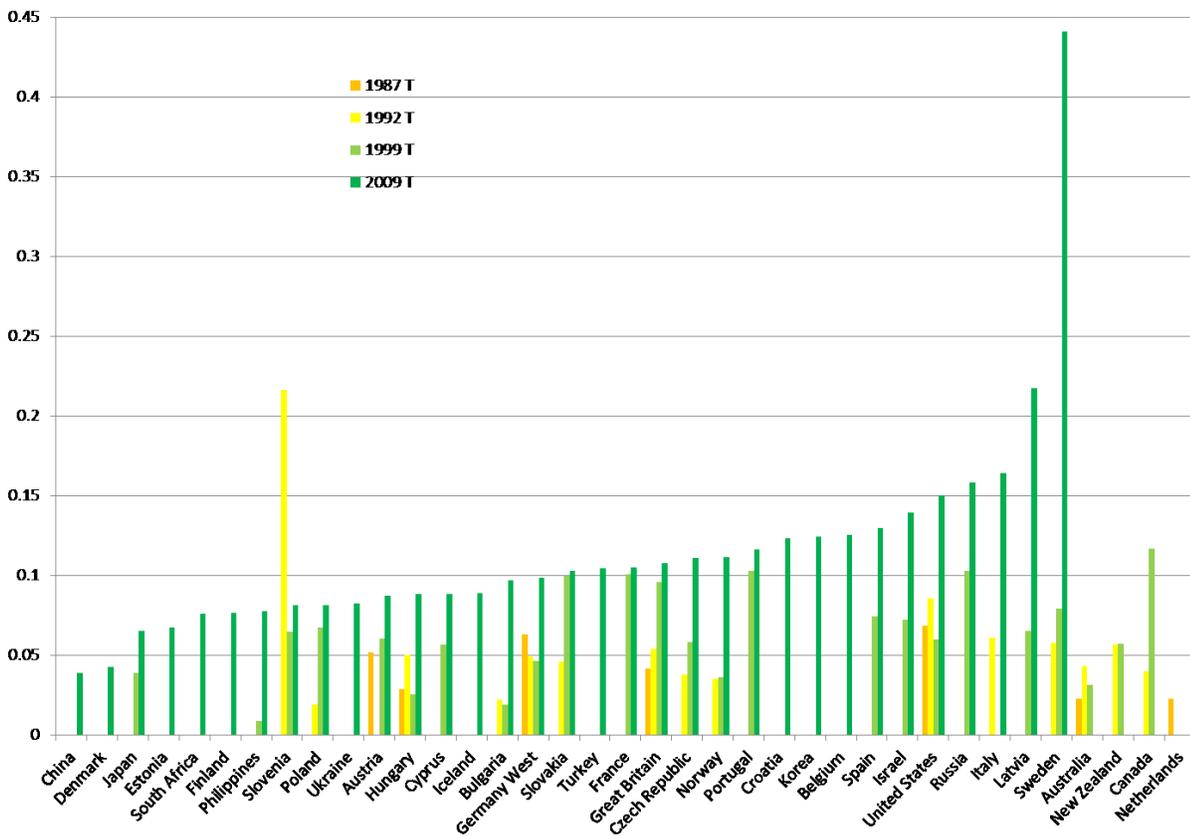
Table 12 – Aggregate preferences for distribution (data: ISSP)

Country	Year	Rise max	Tax max	Desired wage ratio	C	T	Contraction (median)	Contraction (average)	Contraction (weighted average)	Advantage	Dis-advantage
Argentina	2010	1.00	.40	2.78			2.23	2.50	2.50		
Australia	1987	.33	.29	3.04	.19	.02	1.30	1.38	1.38	74	98
Australia	1993	.50	.50	3.33	.05	.04	1.55	1.64	1.64	52	99
Australia	1999	.40	.50	3.95	.04	.03	1.72	1.77	1.77	79	100
Australia	2010	.40	.71	5.58			2.59	2.92	3.04		
Austria	1988	.50	.50	4.99	-.01	.05	2.00	2.18	2.17	42	97
Austria	2000	.33	.44	4.07	.00	.06	1.71	1.80	1.76	57	96
Austria	2010	.38	.55	4.18	-.01	.09	2.38	2.56	2.57	63	95
Belgium	2009	.25	.40	2.78	-.09	.13	1.70	1.83	1.85	46	94
Bulgaria	1993	1.67	.33	2.98	.45	.02	1.70	1.77	1.77	96	99
Bulgaria	1999	1.50	.25	3.33	.48	.02	1.79	1.84	1.84	94	99
Bulgaria	2009	.67	.33	2.89	.14	.10	2.15	2.27	2.26	83	96
Canada	1992	.57	.47	3.39	.24	.04	1.65	1.70	1.69	89	99
Canada	1999	.43	.50	3.50	.07	.12	1.66	1.83	1.87	86	96
Chile	2000	1.22	.50	8.94			2.81	3.11	3.13		
Chile	2009	1.00	.50	7.91			2.98	3.37	3.33		
China	2008	.50	.45	4.99	.06	.04	1.67	1.94	1.98	53	96
Croatia	2009	.80	.50	3.33	.10	.12	2.53	2.71	2.71		
Cyprus	1999	.33	.35	3.23	.01	.06	1.55	1.63	1.63	88	95
Cyprus	2009	.31	.25	5.70	-.04	.09	1.39	1.40	1.40	63	94
Czech Republic	1992	.96	.33	4.02	.14	.04	1.54	1.64	1.64	58	98
Czech Republic	1999	.67	.50	5.59	.07	.06	1.95	2.08	2.08	79	100
Czech Republic	2008	.50	.50	3.93	-.06	.11	2.27	2.39	2.40	77	97
Denmark	2009	.25	.40	2.45	.03	.04	1.50	1.62	1.62	44	95
Estonia	2010	.82	.38	4.47	.15	.07	1.84	1.97	1.96	62	98
Finland	2009	.33	.50	3.53	-.01	.08	1.73	1.90	1.87	93	99
France	1999	.50	.58	5.10	.03	.10	2.17	2.29	2.26	49	96
France	2009	.50	.60	5.22	-.02	.11	2.60	2.94	2.98	75	92
Germany West	1987	.71	.50	4.55			2.15	2.26	2.26	71	94
Germany West	1992	.43	.50	4.54			1.88	1.95	1.95	93	98
Germany West	2000	.50	.63	5.27			2.82	2.96	2.96	89	96
Germany West	2010	.33	.50	4.00	.03	.06	1.73	1.83	1.83	96	100
Germany East	1992	.43	.50	4.04	.07	.05	1.75	1.89	1.89	97	97
Germany East	2000	.33	.40	4.33	.04	.05	1.56	1.65	1.65	88	96
Germany East	2010	.39	.50	5.33	.01	.10	2.01	2.37	2.37	79	97
Great Britain	1987	.50	.40	4.17	.07	.04	1.75	1.87	1.89	83	95
Great Britain	1992	.50	.50	4.71	.14	.05	1.84	1.98	2.00	73	98
Great Britain	1999	.50	.50	4.71	.04	.10	1.82	1.98	2.04	87	94
Great Britain	2010	.39	.50	4.61	-.02	.11	2.02	2.28	2.23	87	95
Hungary	1987	.60	.40	2.71	.28	.03	1.40	1.45	1.45	89	100
Hungary	1992	1.22	.50	3.37	.23	.05	2.33	2.48	2.48	88	93
Hungary	1998	1.22	.50	4.84	.49	.03	2.40	2.75	2.76	93	100
Hungary	2009	.92	.60	5.00	.21	.09	3.23	3.77	3.79	94	94
Iceland	2010	.50	.40	2.58	.05	.09	1.87	1.94	1.94	88	92
Israel	1999	.67	.50	3.72	.10	.07	1.84	1.89	1.89	79	96
Israel	2009	.50	.47	3.33	.03	.14	2.07	2.12	2.12	84	91
Italy	1992	.45	.50	2.99	.02	.06	1.81	1.95	1.95	73	98

Country	Year	Rise max	Tax max	D. wage ratio	C	T	Contraction (median)	Contraction (average)	Contraction (weig. av.)	Advantage	Dis-advantage
Italy	2011	.50	.75	3.65	-.05	.16	3.83	4.30	4.47	68	92
Japan	1999	.40	.25	6.00	.12	.04	1.51	1.70	1.70	91	100
Japan	2009	.33	.27	6.14	.16	.07	1.50	1.71	1.71	87	100
Korea	2009	.50	.50	6.93	.13	.12	2.11	2.46	2.46	86	94
Latvia	1999	1.86	.50	5.27	.24	.07	2.38	2.69	2.69	86	97
Latvia	2009	.75	.66	2.96	-.16	.22	2.89	3.15	3.15	52	82
Netherlands	1987	.33	.33	3.87	.06	.02	1.49	.	.	75	99
New Zealand	1992	.39	.47	3.35	.12	.06	1.66	1.74	1.74	89	97
New Zealand	1999	.36	.50	4.00	.10	.06	1.75	1.83	1.83	89	96
New Zealand	2009	.33	.40	4.29			1.61	1.73	1.73		
Norway	1992	.36	.40	1.87	.07	.04	1.41	1.45	1.45	69	94
Norway	1999	.33	.33	2.00	.04	.04	1.29	1.33	1.33	78	93
Norway	2009	.25	.43	2.19	-.08	.11	1.50	1.58	1.58	38	88
Philippines	1992	.70	.00	4.38	.22	.00	1.04	1.17	1.18	99	98
Philippines	1999	1.00	.00	4.44	.34	.01	1.20	1.28	1.30	93	98
Philippines	2009	.60	.20	3.42	.04	.08	1.34	1.52	1.49	87	98
Poland	1987	1.00	.25	2.56	.00	.00	1.32	1.34	1.34	100	100
Poland	1992	1.80	.33	3.35	.47	.02	1.90	2.01	2.06	95	100
Poland	1999	1.14	.50	5.30	.24	.07	2.18	2.44	2.46	93	99
Poland	2010	.88	.50	4.71	.15	.08	2.53	2.80	2.82	93	96
Portugal	1999	.71	.50	4.62	.02	.10	1.94	2.13	2.14	67	93
Portugal	2009	.67	.40	4.47	.08	.12	2.63	2.97	3.02	90	95
Russia	1992	3.37	.43	4.18	4.45	.00	1.92	2.06	2.23	100	100
Russia	1999	3.50	.58	6.67	.24	.10	6.12	6.61	6.52	86	97
Russia	2009	1.08	.60	5.00	.07	.16	3.54	4.00	4.06	89	96
Slovakia	1992	1.00	.33	3.50	.07	.05	1.78	1.84	1.84	84	97
Slovakia	2001	1.40	.53	4.93	.14	.10	2.48	2.61	2.61	87	98
Slovakia	2009	.50	.50	4.00	-.03	.10	2.06	2.19	2.21	76	95
Slovenia	1992	1.00	.38	3.78	-.19	.22	2.14	2.24	2.24	3	67
Slovenia	1998	.75	.50	4.47	.02	.06	2.14	2.30	2.30	63	95
Slovenia	2009	.67	.50	4.29	.03	.08	2.71	2.90	2.90	94	97
South Africa	2009	1.00	.40	9.35	.14	.08	1.98	2.06	1.86	96	99
Spain	1999	.50	.33	2.54	.05	.07	1.73	1.75	1.75	65	91
Spain	2009	.50	.50	2.67	-.04	.13	2.28	2.52	2.53	62	91
Sweden	1991	.36	.33	1.92	.02	.06	1.48	1.51	1.52	57	90
Sweden	1999	.31	.43	2.16	.01	.08	1.55	1.62	1.62	57	90
Sweden	2009	.25	.50	2.31	-.38	.44	1.69	1.79	1.79	56	91
Switzerland	1987	.40	.33	3.39			1.49	1.56	1.56		
Switzerland	2009	.33	.40	4.95			1.87	2.07	2.09		
Taiwan	2009	.25	.33	11.18			1.38	1.57	1.58	93	97
Turkey	2009	1.00	.40	3.33	.32	.10	2.61	2.73	2.73	97	99
Ukraine	2009	1.86	.57	3.10	.84	.08	4.24	4.77	4.69	67	97
United States	1987	.60	.40	4.33	.03	.07	1.58	1.66	1.66	82	93
United States	1992	.75	.50	4.33	.04	.09	1.90	1.97	1.96	71	97
United States	2000	.60	.45	4.00	.03	.06	1.69	1.85	1.85	66	97
United States	2009	.44	.66	4.71	-.09	.15	2.57	3.02	3.00		
Venezuela	2010	1.00	.40	2.96			1.96	1.98	1.98	71	97
Average	**2001**	**.72**	**.44**	**4.21**	**.14**	**.08**	**2.04**	**2.20**	**2.21**	**77.0**	**95.7**
Standard deviation 8		**.55**	**.12**	**1.55**	**.51**	**.06**	**.71**	**.81**	**.81**	**17.8**	**4.5**

Part IV
Directions for future research

This last part will sketch methods which address the main limitations of this thesis: on the one hand, the lack of precision for desired tax rates and the doubts that remain concerning their interpretation; on the other hand, the absence of behavioral response. Hence, a new questionnaire specially conceived to determine in details citizens' desired tax system will be proposed, before the exposition of a simple simulation of behavioral response that computes tax rates which would achieve any desired distribution.

13 A specific survey

Existing surveys only gives us a first glance of citizens' desired tax system. They are designed to understand people's tastes and perceptions of inequalities and their determinants, but their goals do not directly consist in proposing a reform from people's expectations. On the contrary, I propose here a new survey conceived so as to determine a comprehensive reform of taxation which would certainly be endorsed by a majority of citizens. To insure this endorsement, the approbation of a quantified proposal of redistribution is asked, where the figures of this proposal derive from previous answers. Hence, it aims to be more than a descriptive survey: namely, it is an example of a more democratic way to choose the parameters of a reform of taxation as compared to our current system of binary vote (yes/no) by representatives in the Parliament. Indeed, we have seen that people agree for more redistribution: I form the hypothesis that citizens are not satisfied with current tax policies because current decision process does not ask the right questions to the right persons, so that decisions do not reflect people's preferences: hence the case for a new procedure to prepare tax reforms.

The closest survey with my proposition is Dynegal: it asks to cipher several income tax levels, it asks for agreement over French system of taxation of capital and inheritance, etc. However, my survey would not be redundant with Dynegal because, while the latter is mainly qualitative, mine would be largely quantitative: instead of asking whether a 20% tax on a inherited wealth of half a million euros is too much or not, for example, my survey asks how much, in percents, should we tax such an inheritance. Thus, not only would we be able to determine if people are satisfied or not, but we would cipher their desired level of redistribution. Moreover, by asking explicitly respondents about their endorsement of different policies, we remove the gap that can remain between people's ideals (captured by current surveys) and what they support in practice politically: we shift from *ethical* questions to *political* answers.

13.1 The case for a survey: discussion with Pierre Bourdieu

Before presenting the questionnaire (described in 13.2.3 and detailed in Appendix D), I want to answer the criticism well developed by Bourdieu [1973] that "public opinion does not exist", which amounts to say that, because people haven't thought in advance to all intricate political questions asked in a survey, their answers should not be interpreted as deep endorsements or immutable certainties, hence discrediting a possible use of these answers as policy drafts. On the contrary, I claim that, firstly, conducting a survey before a media coverage of its subject reveals dormant preferences of people, absent influences of pressure groups and the positioning they require relative to them, and that these latent preferences and their possible changes during a public debate are interesting by themselves. Secondly, a survey is much less prone to strategic behavior than a

vote, so one expects more reliable answers concerning, *e.g.*, desired maximal income. Lastly, my questionnaire is designed precisely not to learn opinions, but rather political desires: it looks more like a vote than a usual poll; furthermore, Bourdieu's point about the irrelevance of the questions arguably apply more to our electoral system than to a subtle questionnaire, because, as he explains, our representatives do not express people's preferences:

> Si vous avez à l'esprit qu'une consultation électorale pose en une seule question syncrétique ce qu'on ne pourrait raisonnablement saisir qu'en deux cents questions, [...] que la stratégie des candidats consiste à mal poser les questions et à jouer au maximum sur la dissimulation des clivages pour gagner les voix qui flottent, [...] il faut [...] s'interroger sur la fonction du système électoral, instrument qui, par sa logique même, tend à atténuer les conflits et les clivages.[45]

Pursuing our detour with Bourdieu, I will examine the three erroneous *implied postulates* underlying opinion polls he identifies, to show that I stand more on the side of his criticism, by addressing its main points, than against it. The first inaccuracy is to consider that "the production of an opinion is within everyone's range of possibility". To address it, he advises to take into account missing answers: I plan to do this rigorously, by systematically allowing for appropriate *non-answers* among "I don't know", "I don't want to answer", "I don't understand the question" and "I don't care" and by studying correlates with these *non-answers*. I reckon that many people have no idea whether marital quotient is good or not, but giving anyone choices for not answering, we should get responses of those who do matter but are usually not heard in the decision process. The second flaw is to "take for granted that all opinions have the same value, [...] the same real importance". Bourdieu does not say here that we should trust (better informed) experts to take political decisions for ourselves, his statement has to be understood as descriptive rather than normative: opinions does not have the same power *de facto*, what counts is *mobilized* opinion:

> Si un ministre de l'Éducation nationale agissait en fonction d'un sondage d'opinion (ou au moins à partir d'une lecture superficielle du sondage), il ne ferait pas ce qu'il fait lorsqu'il agit réellement comme un homme politique, c'est-à-dire à partir des coups de téléphone qu'il reçoit, de la visite de tel responsable syndical, de tel doyen, etc. En fait, il agit en fonction de ces forces d'opinion réellement constituées qui n'affleurent à sa perception que dans la mesure où elles ont de la force et où elles ont de la force parce qu'elles sont mobilisées.[46]

This consideration leads paradoxically to support surveys more than ever, as long as they help to mobilize citizens' stance: surveys, like petitions, can then take the role of pressure groups if they are sincerely taken in account by politicians. If, by a change in the decision processes, we conferred a power of decision to surveys' results (or, similarly, if votes dealt with propositions rather than

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[45]The English version (published in 1979 in *Communication and Class Struggle 1, New York: International General*) writes: "In reality, if we keep in mind that an election poses in a single syncretic question what can only be reasonably understood in two hundred questions [...] one will realize that the act of voting is a question of chance. [...] This is all the more true when the strategy of electoral campaigns is to obscure the questions and conceal the differences between candidates in order to win undecided votes. All this leads one to ask what is the function of both the electoral system and the opinion surveys, whose properties are so similar. To put things in very gross terms, I believe that the electoral system is an instrument whose very logic tend to attenuate conflicts and differences, and thus naturally tends to be conservative."

[46]*Ibid.* "If the Minister of Education acted in function of an opinion poll (or even a superficial reading of a poll), he would not do what he does when he acts really as a politician, in response to the telephone calls, the visit from the director of the Ecole Normale Supérieure, or from a dean, etc. In reality he acts much more in function of forces of actually formed opinion, which enter his field of vision only to the extent that they have power, because they have already been mobilized.

representatives), a much larger share of opinions would be mobilized. Unfortunately, my approach stumbles upon the third falsehood pointed by Bourdieu: "there is a consensus about the problem, that is, an agreement about which questions are worth asking". Of course, in a *real* democracy[47], only public debate (regulated by fair rules for the selection of propositions), is legitimate to raise questions and to form propositions. Yet, my questionnaire is naturally biased towards my thinking about inequalities and my tastes concerning the tax system, if only because its critical question for determining income tax rates asks for the fair shape of the income distribution rather than reasoning directly in terms of tax rates. Hence, I fall in the criticism of Bourdieu that:

> L'« opinion publique » qui est manifestée dans les premières pages de journaux sous la forme de pourcentages (60 % des Français sont favorables à...), cette opinion publique est un artefact pur et simple dont la fonction est de dissimuler que l'état de l'opinion à un moment donné du temps est un système de forces, de tensions et qu'il n'est rien de plus inadéquat pour représenter l'état de l'opinion qu'un pourcentage.[48]

Despite all this, absent a platform of public debate where I could argue that my questions are legitimate and discover other legit questions, I feel that the best I can do in order to grasp the missing citizens' proposal of a tax reform lies in my questionnaire. Anyway, this questionnaire must be corrected by researchers and citizens before being administered, to address as much as possible this last caveat. In any case, I believe that such a survey would constitute an improvement in both understanding and mobilizing of "public opinion", together with being a case for a revision of our decision process.

13.2   Design of the survey

To completely convince of the interest of my survey, I still need to present the questionnaire and its spirit. I will proceed in three times: (1) explanation of the context and main characteristics of the survey, (2) justification of the method imagined to determine income tax rates and (3) detail of the topics.

13.2.1   Main features

I am of course open to discuss any choice for this survey with whoever is interested in my project, but here are its current characteristics. I plan to conduct my survey on-line between July and December 2016, using a polling organization in order to get a representative sample. I have already coded the French version of the questionnaire with the software *Qualtrics*[49], the only one allowing for the level of customization I need. The sample size I need to satisfy the criteria of my power analysis (given in Appendix C) is around 2000 respondents. I have obtained several price estimates from three companies (*mTurk*, *Qualtrics* and *Bilendi*[50]): hoping that the length of the

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[47]Defining *democracy* as a a political regime such that :
 - the necessary conditions for well-being are insured for all,
 - each person has the same power of decision on issues that matter to them,
 one understands that, if only because of the extent of financial inequalities, our society is still far from the ideal of democracy.

[48]*Ibid.* "The "public opinion" which is stated on the front page of the newspapers in terms of percentages (60% of the French are in favor of...) is a pure and simple *artefact* whose function is to conceal the fact that the state of opinion at any given moment is a system of forces, of tensions, and that there is nothing more inadequate than a percentage to represent the state of opinion."

[49]Actually, around one week of work is still needed to code one missing algorithm and one missing animation and compute two income distributions from optimal taxation theory. A preview of the questionnaire is available here: https://login.qualtrics.com/jfe/preview/SV_4OQGwiqMfTDtjjn

[50]*Bilendi* is the leader of this sector in France: it provides samples to well-known *Ipsos*, *TNS-Sofres* and *Ifop*, among others.

survey will not exceed 15 minutes, my benchmark specification[51] costs around 8000€[52]. The license for *Qualtrics* costs 1700€, the rest of the price has to be paid to the polling organization, which in turn remunerates each respondent. I am still hesitating between conducting the survey in France, where I know better the tax system and for which I have already redacted a specific questionnaire, or in the United States, which could be less costly and reach a broader audience.

The goal of my survey is to improve knowledge about:

○ shapes of disposable income distribution desired by citizens;

○ grading of different distribution;

○ influence of *treatments* on preferences (whether it be differences in the formulation of a question or addition of arguments oriented in one political direction or the other);

○ features desired for the tax system.

In order to test the influence of several treatments, I plan to split respondents into 4 groups: the majority of the questions are the same for all, but some questions are divided into two or four versions, and one question has one version for the second half of the period of administration of the survey distinct from that of the first half. This question is the most prominent one in my survey: it is the one asking to grade different income distributions between -3 and 3. To all respondents, four common distributions will be proposed (current one, egalitarian, Rawlsian and utilitarian[53]) as well as one custom distribution derived from their own preferences about distribution, but an additional distribution will be proposed to the second half only: the most desired distribution by the first half of the sample (I detail in 13.2.2 the procedure for aggregating preferences). I construct custom distributions using the constraint that redistribution implied from current situation should be neutral for the state's budget (budget neutrality), along with 3 parameters chosen by the respondent:

○ amount for a basic income: this is the ordinate at zero;

○ share of the population to advantage through a redistribution of incomes: this is the *neutral* point, *i.e.* the point where the new curve of income distribution crosses the current one, and where disposable income remains unchanged;

○ maximal level of income: this is the ordinate at the maximum.

One can argue that 3 points are not enough to define a curve (in this case, the curve of income distribution): indeed, I can still include in my procedure the desired minimum wage or desired tax rates for given levels of incomes, but I believe that in a first approximation, these 3 points are very informative. Moreover, it would be more difficult to respect the constraint of budget neutrality if we were adding other points. This is why I prefer to ask for desired level of low and high wages in a separate and qualitative question. Finally, it would be tedious to detail the algorithm I imagine to draw a custom curve from these three points, it is probably enough to say that the result should pass through the three points, preserves the budget and has a shape close to the current distribution's.

---

[51]My benchmark contract would be with *Bilendi*, for a representative sample of 2000 French respondents surveyed for 15 minutes on average.

[52]It is difficult to get fundings for a research project not associated with an academic curriculum, like a PhD.: I have already been rejected by one funds for this reason. Absent any institution to back my project, I will probably pay for it by myself.

[53]Egalitarian is simply the uniform distribution, whereas Rawlsian and utilitarian refer to distributions implied by corresponding criteria in optimal taxation theory: Rawlsian social weights are concentrated exclusively on the least advantaged (it is logically also called *maxmin*) whereas utilitarian criterion gives the same welfare weight to anyone. See *e.g.* Saez [2001] for a precise exposition.

13.2.2 Justification of the method

If the answers to my survey are interesting for themselves, one has to be aware of its underlying framework to understand that many questions are tied together and assess citizens' approbation for a *specific* reform of the French tax system whose only unknowns are the parameters, *in fine* determined by respondents. This partiality is the main flaw of my survey; nonetheless, if people approve the reform described in the survey, implementing it would be an improvement, even if better reforms are possible. The foundation of *my* reform is to be found in Landais et al. [2011]: the authors propose a *fiscal revolution* for France, that is a deep reorganization of the tax system, involving a merge of different taxes and subsidies so as to simplify and clarify the system, an individualization of the income tax (currently calculated for the household with a system of marital and familial quotients) and an increased progressivity. A crucial advantage of this proposal, alongside the comprehensive sources and programs offered with it, lies in the readability of the tax system it would produce: individualization allows to think about income distribution in a simple way while simplification leads to link directly a change in disposable income distribution with a redistribution through new income tax rates. To me, the shortfall of this proposal is the lack of explicit tax rates: authors fairly admit that their economist curriculum does not legitimate them to choose the extent of a redistribution: the figures have to be decided democratically. Hence, only a precise estimation of desired extent of redistribution would complete their proposal for a fiscal revolution: this is why I propose my survey.

It would be off-topic to describe extensively the reform I imagine[54], the only point to keep in mind is that it would change the disposable income distribution according to people's preferences and without changing the ordering of citizens in this distribution[55]. The idea that citizens can democratically choose the income distribution is simple, but revolutionary: indeed, it relies on the implicit assumption that a sovereign population is legitimate to consciously choose the level of inequalities and redistribution, against market laws and isolated individual decisions. Although this claim can be unacceptable for some, it conciliates with many different tax reforms. This is the first reason why I choose to characterize preferences for distribution in terms of the shape of disposable income distribution: it remains relatively agnostic to the specification of the reform, even if it fits particularly well with *my* reform because of the direct link I envision between taxable and disposable income. The second reason is that, at the first order, one matters only with the amount of her own[56] disposable income when evaluating an income redistribution. Hence, when dealing with income inequalities, disposable income distribution is the main relevant concept. The third reason is the simplicity for the aggregation of preferences enabled by my method: characterizing a curve by three parameters, I can simply take the median value of these parameters in my sample to draw a *median* desired curve, using the same algorithm as for individuals to calculate this *societal* custom distribution. On the contrary, if one asks directly for desired income tax rates, not only one has to insure that respondents respect the budget neutrality constraint[57], but one cannot count on the fact that this constraint would be respected by taking median answers[58]. Finally, reading

---

[54]It is described in the last part of an essay I wrote, *L'éloge de la naïveté* (in French only), available on-line: http://wegivethe99percents.org/elogeNaivete.php#_199. It is largely inspired by Landais et al. [2011].

[55]Of course, this reform can be embedded in a more general one which would re-order people's disposable incomes according to consensual preferences, and by the way my questionnaire includes questions assessing what re-ordering people want.

[56]If one is uncomfortable with this statement because of sharing practices of households, one can simply consider than a married person's disposable income is her household's disposable income divided by two (or perhaps more, in presence of children).

[57]Size of government should arguably be decided separately from the shape of income distribution, as it involves choosing the repartition of spendings: this deserves a survey of its own.

[58]Admittedly, one could then take average answers to easily satisfy the constraint, but the procedure thus loses its strategyproofness. Arguably, one could take after all a truncated mean to preserve all interesting properties, but

and grading curves of income distribution, albeit challenging for many people, does not seem more difficult than adjusting income tax rates under the budget neutrality constraint[59], nor answering to any other method sophisticated enough to characterize a tax reform.

13.2.3 Topics covered

Although the detail of questions, in French, is presented in Appendix D, I summarize here the 32 questions of the questionnaire:

- Sociological characteristics: monthly income, net wealth, number of persons in household, number of hours worked, marital and working status;

- General opinions: satisfaction with current income, own deserved income, support for human rights;

- Desired standard of living, randomly between: 6 categories of consumption, or any figure;

- Political opinions: interest in politics, multiple choices for defining own's political identity;

- Preference for distribution: maximal income in an ideal society;

- International redistribution, with progressive arguments randomly assigned: share of income rich countries' should transfer to poor countries;

- Opinions on benefits: support for European unemployment benefits, European basic income and removal of benefits for swindlers;

- Inheritance tax, a random question within: desired maximal inheritance tax rate and inheritance tax rate for 10^6, 10^7 and 10^9 € of inheritance;

- Opinions on taxes: support for a simplification of tax system, for a merge of income tax and social contributions, for a democratic determination of tax rates (from a survey);

- Maximal gap, randomly between: desired maximal income gap in France, or on Earth;

- Desired basic income, four different formulations randomly assigned;

- (Dis)advantage, random assignment between: proportion of people a tax reform should advantage, or disadvantage;

- Maximal income, randomly assigned to one in 4 formulations corresponding to 2 dimensions: maximal income, or income tax rate, that should be set up, with or without Laffer argument against too much progressivity;

- Marital quotient, randomly between: support for marital quotient, or for individualization;

- Favorite distribution, grade between -3 and 3 of different distributions: custom, current, egalitarian, Rawlsian, utilitarian, plus median choice for the second half of the sample;

- Approval of custom reform, with random displaying of own change in disposable income due to the reform;

---

other arguments in favor of choosing the shape of income distribution remain.

[59]Both have already been asked in surveys: in Weinzierl [2013] for the former and in Forsé & Parodi [2014] for the latter.

○ Behavioral response, randomly within: number of hours worked if own income was altered by +10/+25/-10/-25%;

○ Sectoral redistribution, 5 qualitative choices for each category: should a tax reform increase or decrease incomes or amounts of following categories: unemployed, homeless, retired, minimum wage earners, women, executives, shareholders, owners, VAT, capital tax, overtime hours and social contributions;

○ Taxation of capital, randomly between: support for an increase of capital taxation, or proportion of state's revenues capital taxation should represent (given that it is currently 23%).

14 Link with theory of optimal taxation

Studies in economics of well-being suggest that one's satisfaction is more linked to her place in the social ladder and the extent of social inequalities than to her income in absolute terms[60]. Furthermore, finiteness of metallic and energetic resources together with global warming question the pursuit of maximal consumption. Yet, the usual path followed to determine optimal taxation prevents from considering as *optimal* rates rates that would lead, for example, to a perfect equality of incomes, on the grounds that they would not be *efficient*. Indeed, consumption maximization (or *Pareto-efficiency*) is inscribed in the genes of optimal taxation theory since authors have restricted Pareto weights in the social welfare function to non-negative values. Hence, I propose to study a new method to determine optimal income taxation, which would not restrict the space of solutions of distributions to *efficient* ones, and which would be based on individuals' subjective wishes. Viewed from neoclassical utilitarianism's lenses, this new approach is absurd; but if one admits that utility depends largely on suffered inequalities, it is then logical not to confer any value to consumption maximization and to evaluate an income distribution solely on the closeness between its shape and the one desired by citizens. To achieve the first best solution in such a framework, one can compute the income tax rates which would transform a given distribution into a target one, using measures of taxable income elasticity given in the literature. In a first attempt to take into account behavioral responses, I will present such a method.

Official statistics gives us current distribution of consumption c depending on quantile q: $c(q)$, while ISSP or other surveys provides the target distribution $c^+(q)$. Current distribution of taxable income $z(q)$ as well as current tax rates $T(z)$ are also known. The two unknown functions are future tax rates $T^+(z)$ and future pre-tax distribution $z^+(q)$[61]. In the case of marginal variations of $T' = \frac{dT}{dz}$, and after defining $dz = z^+ - z$, the discrete version gives:

$$
\begin{aligned}
c^+ - c \quad &= \quad dz - \left(T^+\left(z^+\right) - T(z)\right) \\
&\underset{dz \to 0}{=} \quad dz - \left(T^+(z) - T(z) + dz \cdot T^{+'}(z)\right) + o(dz) \\
&\underset{dz \to 0}{=} \quad dz \cdot \left(1 - T^{+'}(z)\right) - \left(T^+(z) - T(z)\right) + o(dz) \\
&\underset{dz \to 0}{=} \quad -\zeta_z^u \cdot z \cdot \left(T^{+'}(z) - T'(z)\right) \cdot \frac{1 - \cancel{T^{+'}(z)}}{\cancel{1 - T^{+'}(z)}} - \left(T^+(z) - T(z)\right) + o(dz)
\end{aligned}
$$

---

[60] To cite only a few evidence: McBride [2001] shows that subjective well-being is correlated to relative income, whereas Alesina et al. [2003] and Morawetz et al. [1977] highlight its negative correlation with income inequality.

[61] We have of course $c = z - T(z)$ and $c^+ = z^+ - T^+(z^+)$.

where ζ^u is the uncompensated (*i.e.* Marshallian) elasticity: $\zeta_z^u = \frac{1-T^{+\prime}}{z} \frac{\partial z}{\partial(1-T^{+\prime})}$.

We have assumed that $\frac{dz}{z}$ was small, about the same size as $\frac{dc}{c}$, so we have to check *a posteriori* that it is the case — that, say, $\left| \zeta_z^u \cdot \frac{T^{+\prime}(z)-T'(z)}{1-T^{+\prime}(z)} \right| < 5\%$.

Approximating at the first order, one obtains a differential equation of order 1 in T^+:

$$T^{+\prime}(z) = -\frac{T^+(z)}{\zeta_z^u \cdot z} - \frac{c^+(q(z)) - c(q(z)) - T(z)}{\zeta_z^u \cdot z} + T'(z) \tag{1}$$

One has to keep in mind that equation 1 (thus, its solutions) is only valid for small variations of c.

Besides, rewriting this differential equation in function of $V(z) = T^+(z) - T(z)$ may be more practical. One thus gets:

$$V' = -\frac{V + c^+ - c}{z \cdot \zeta_z^u} \tag{2}$$

One can also reformulate the problem by defining dynamic rates: this is the continuous version.

We choose $c(q,t) = \frac{t}{t^+} \cdot c^+ + \frac{t^+ - t}{t^+} \cdot c$, where t^+ is the date of the end of the reform, to shift at a constant pace quantile q's consumption from c to c^+ between dates 0 and t^+. One has:

$$
\begin{aligned}
c(q,t) &= z(q,t) - T(z(q,t),t) \\
\frac{dc}{dt}(q,t) &= \frac{\partial z}{\partial t}(q,t) - \frac{\partial T}{\partial t}(z(q,t),t) - \frac{\partial T}{\partial z}(z(q,t),t) \cdot \frac{\partial z}{\partial t}(q,t)
\end{aligned}
$$

Forgetting indices for more clarity:

$$\frac{dc}{dt} = \frac{\partial z}{\partial t} \cdot \left(1 - \frac{\partial T}{\partial z}\right) - \frac{\partial T}{\partial t} \tag{3}$$

Moreover, by definition of ζ_z^u, one gets:

$$\frac{\partial z}{\partial t} = -\frac{\zeta_z^u \cdot z}{1 - T'} \cdot \frac{\partial T'}{\partial t} \tag{4}$$

Re-injecting (4) into (3), one obtains the continuous version of equation (1)[62]:

$$\frac{dc}{dt} = -\zeta_z^u \cdot z \cdot \frac{\partial^2 T}{\partial t \partial z} - \frac{\partial T}{\partial t} \tag{5}$$

To solve equation 5, one should integrate it with respect to t to boil down to equation 2, approximate ζ_z^u by a linear, step or power function, and then integrate with respect to z. In practice, the continuous version can be approximated by t^+ iterations of the discrete version: one has only to define a path $c^k(q) = c(q,k)$ with $k \in [0; t^+] \cap \mathbb{N}$, choosing t^+ large enough so that, for all k, $c^{k+1} - c^k$ remains small enough.

Economically, staggering a reform in time like this, by bringing closer each year current distribution to target one (one could choose $t^+ = 10$ years *e.g.*) allows to:

○ readjust dynamically the reform according to changes in preferences;

---

[62] I recall that other functions than T are known, as well as the initial condition $T(\cdot, 0)$, and that $T' = \frac{\partial T}{\partial z}$.

○ know better values of elasticity, thus improving previsions concerning behavioral responses and the associated definition of tax rates;

○ smooth the restructuring of economy which is entailed by income redistribution through the channel of re-allocation of consumption across sectors.

In future work, I may conduct simulations of equation (1) to determine the path of taxation $T(q,t)$ that this approach would lead to in practice.

Appendix

A Determination of each country's distribution

Unfortunately, we still lack a comprehensive database of income and wealth distribution. The World Income Database (WID), the broadest work pursuing this goal, is still in progress, and for the moment covers only top of distributions. Besides, data from Lakner & Milanovic [2015] (LM) gives only estimates of decile shares[63]. While this could suffice to draw desired tax rates in function of percentiles, as one cannot really see what happens at the end of the distribution in such graphs; on the contrary, one really needs a precise estimate of top income shares to compute C and T, which are very sensitive to the shape of the distribution, especially to its top. Indeed, assuming for example that the top desired tax rate is 50%, the value of C and T would vary by .01 if the share of the top 1% was re-evaluated by 2 percentage points (from, say, 5% to 7%). Given that errors can add up, this makes aggregate estimates quite sensitive to the poor estimates of a country's distribution. In addition, WID and LM data contradict for the share of the top decile: WID estimates are quasi-systematically above LM's by some percentage points (3 on average, *i.e.* a 16% difference between figures for p90-p99 share).

In order to have meaningful aggregate estimates, one has to assume a shape for the top of the distribution: I choose to assume WID figures for the top deciles, and then to readjust proportionally LM estimates for lower deciles shares, so that both add up to 1. This is done in `prepare_desired_tax.do`, in the definition of macros for income repartition[64] (*i.e.* cumulated density of distribution), later used to define matrices *income_shares*. I then apply Piecewise Cubic Hermite Interpolating Polynomial (PCHIP) algorithm to cumulated density to infer the distribution between known data points[65]. Then, I obtain graphs of income distribution such as Figure 33 and 34, for countries where data is available. Meanwhile, I calculate implied Gini coefficients as a robustness check: my computations deviate from World Bank estimates by only 11%. Finally, in `functions.do`, the program `Compute_aggregates` computes C and T after assigning to each quantile of the distribution a pair (*current_rev*, median of *desired_rev*).

Figure 33 – Income distribution, China 2008   Figure 34 – Income distribution, South Africa 2008

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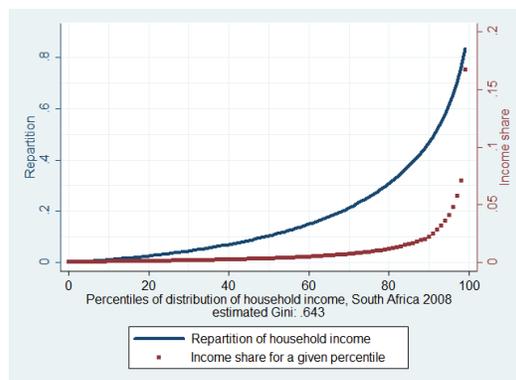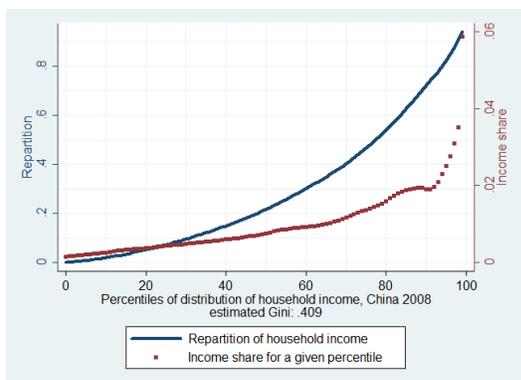
[63] Both dataset gives estimate for each country at 5 years intervals. I then attribute to a sample the distribution of its country at the closest year. All figures are in the spreadsheet.

[64] The extraction of figures from LM is in `prepare_set_up.do`: one can see the problem raised by the distinction between rural and urban deciles in LM database for the computation of Chinese distribution.

[65] Even if it does not preserve convexity, as one can see through the slight decrease of income shares around 90th. percentile on Figure 33; this algorithm is the most accurate, as explained by Fournier [2015].

B Desired tax rates by country

In this Appendix are presented some results on desired tax rates, mostly graphs, for each country. Even if we do not have complete data for all countries (because we sometimes lack an income distribution estimate), the structure of each of the following page is the same. The bigger graph is the running distribution of desired *tax* of the wave of 2009[66], with abscissas expressed in 2005 dollars. They have been smoothed (with a Gaussian kernel) for aesthetical purpose[67]. Then a table summarizes aggregate characteristics of national distributive tastes. The lower part of the page consists of 4 little graphs:

○ in the upper right corner: running median, running average and circles of raw data points, with abscissas expressed in local currency units. The median is not smoothed there, so one can grasp what kind of transformation the smoothing induces on the main graph;

○ in the upper left corner: smoothed running median of *tax* for different waves of the survey, when several waves have taken place in the country;

○ in the bottom left corner: running distribution of *tax* in terms of percentile of country's distribution, when the latter is available[68];

○ in the bottom right corner: current and desired income by percentile, when extensive data about country's distribution is available[69], or cumulated density of income distribution and percentile shares of the country, when only Lakner & Milanovic [2015] estimates are available.

When one of these graphs cannot be displayed because of lack of data, it is replaced by a comparison of curves relative to different social groups: usually the sample is split in function of political leaning, family income, age or highest degree obtained. These curves are smoothed.

Finally, these graphs and a lot more are presented on-line: desired-tax.shinyapps.io/shiny_app.

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[66]Except for Canada (1999) and Netherlands (1987), absent from this wave.

[67]Except for Philippines, because of a bug.

[68]These graphs are not smoothed because smoothing does not accurately transform original graphs (notably, it does not preserve the interval where *tax* is null).

[69]One needs precise estimates of the top of distribution, given by the World Income Database, to draw these graphs.

Figure 35 – ARGENTINA: desired *additional* tax
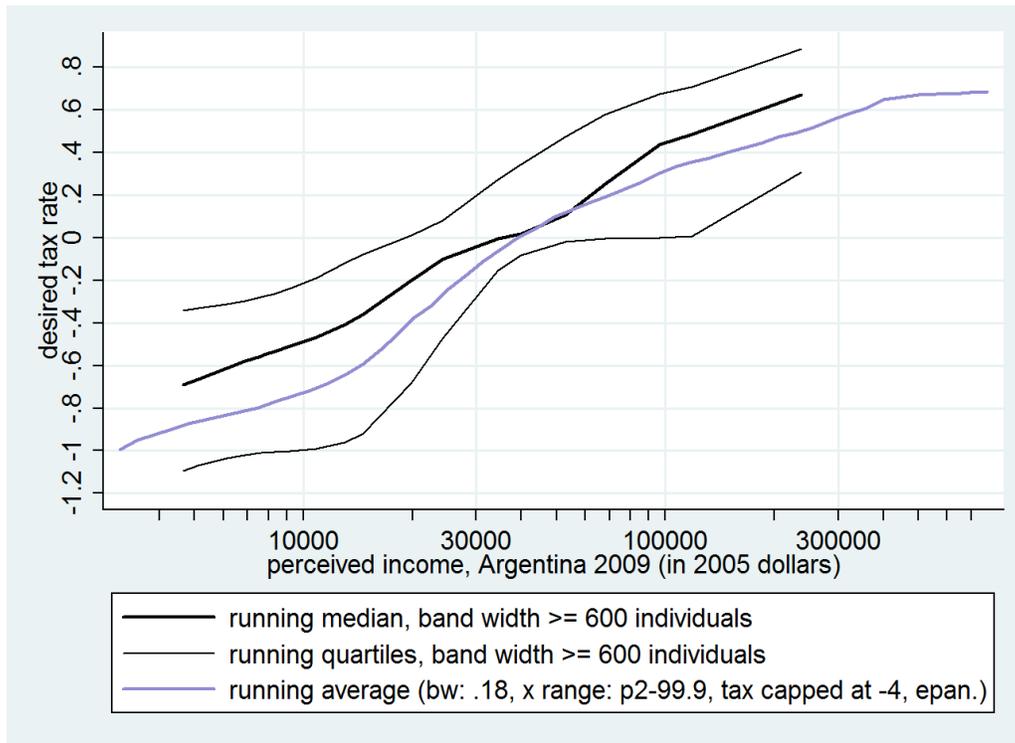
Table 13 – Summary of national statistics for Argentina

| year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc
2010	2.23	1.00	.40	.60	4.00	.45	17547

Figure 36 – split size of town
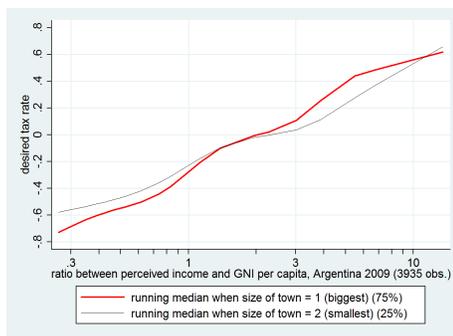
FIGURE 37 – raw data points, in LCU
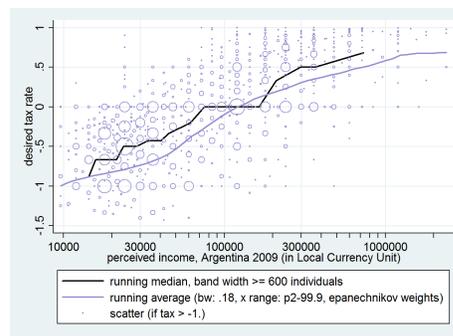
Figure 38 – split income
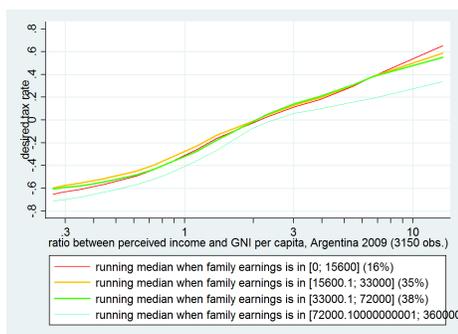
FIGURE 39 – split age
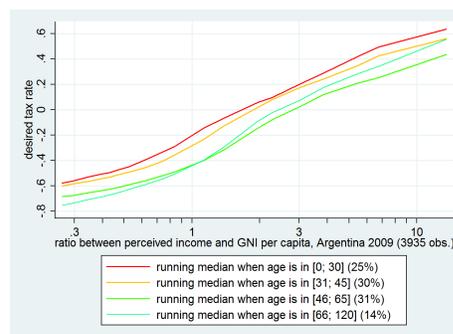
Figure 40 – AUSTRALIA: desired *additional* tax
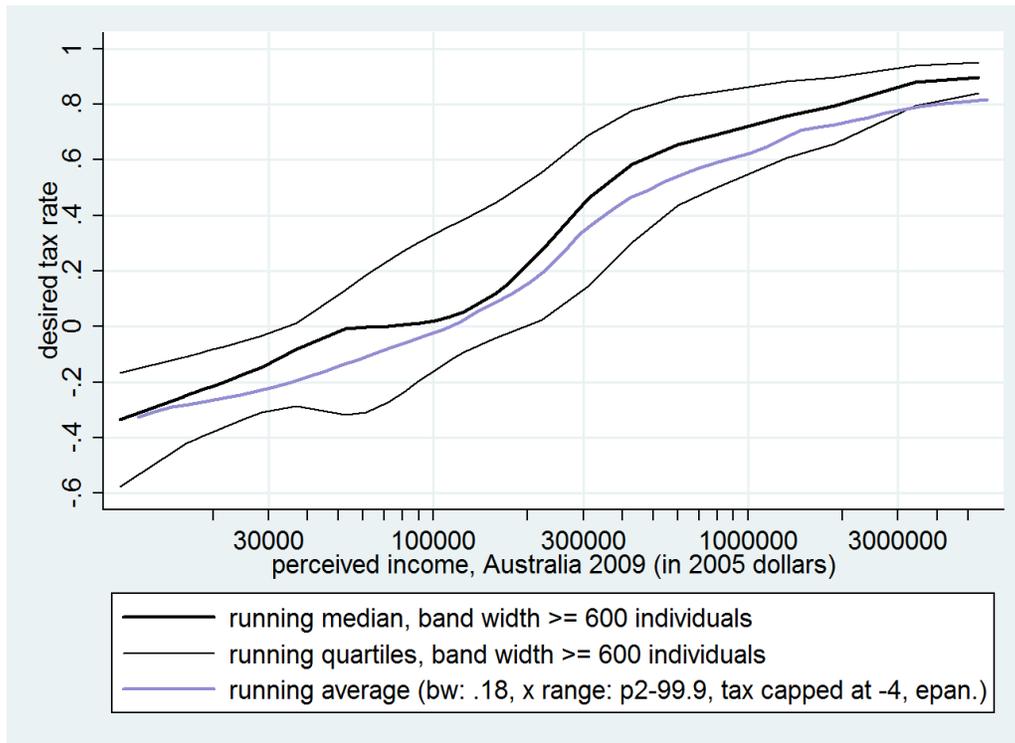
Table 14 – Summary of national statistics for Australia

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1987	1.30	.33	.29	.09	4.00	.33	21134	.19	.02
1993	1.55	.50	.50	.60	5.00	.34	23988	.05	.04
1999	1.72	.40	.50	.57	6.00	.34	27109	.04	.03
2010	2.59	.40	.71	.87	10.00	.35	32648		

Figure 41 – evolution
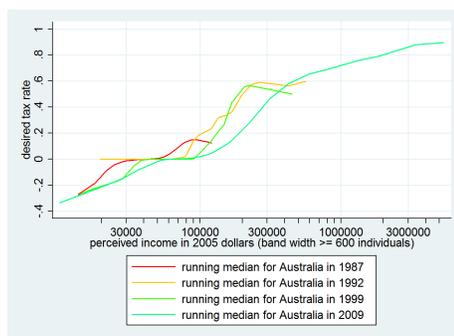
Figure 42 – raw data points, in LCU
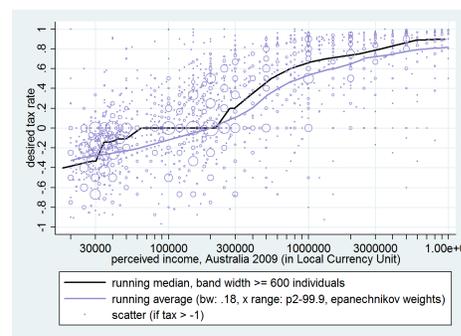
Figure 43 – percentiles (1999)
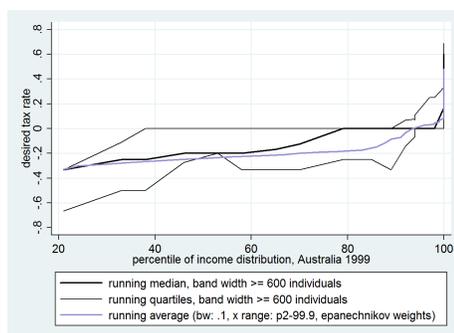
Figure 44 – desired vs. current (1999)
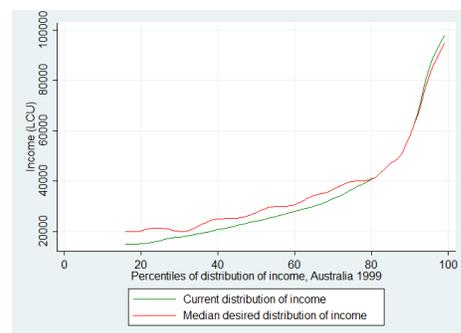
Figure 45 – AUSTRIA: desired *additional* tax
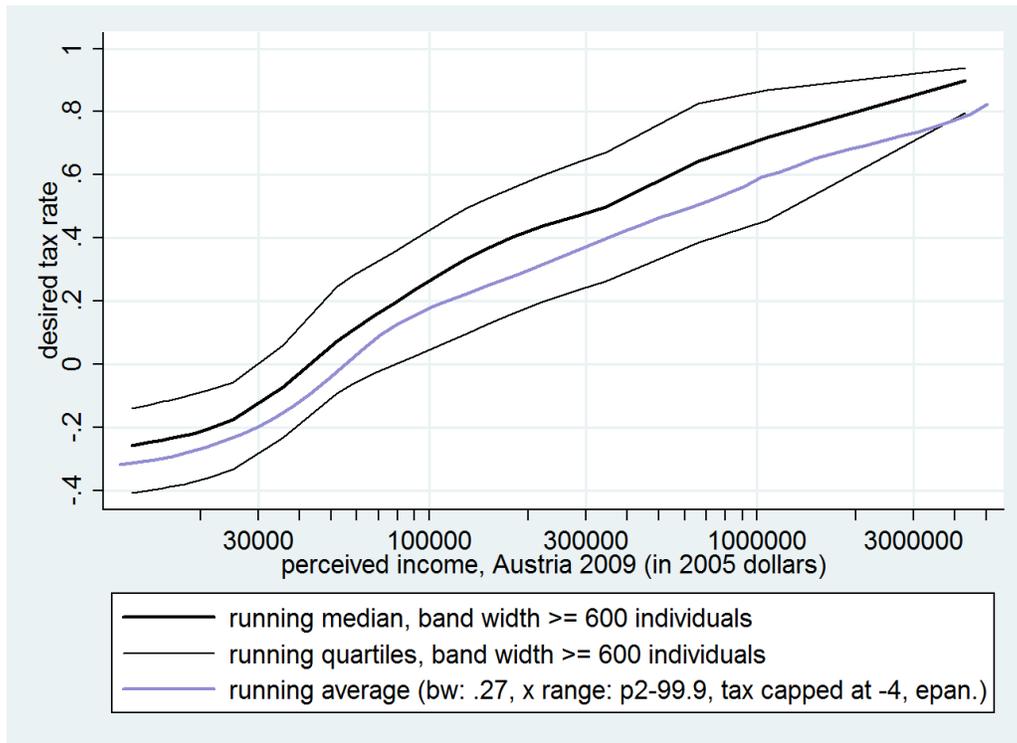
Table 15 – Summary of national statistics for Austria

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1988	2.00	.50	.50	.60	6.67	.26	27686	-.01	.02
2000	1.71	.33	.44	.50	5.42	.30	32799	-.00	.06
2010	2.38	.38	.55	.71	5.45	.30	37294	-.01	.09

Figure 46 – evolution
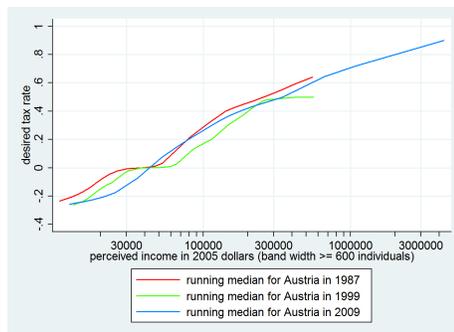
FIGURE 47 – raw data points, in LCU

Figure 48 – percentiles
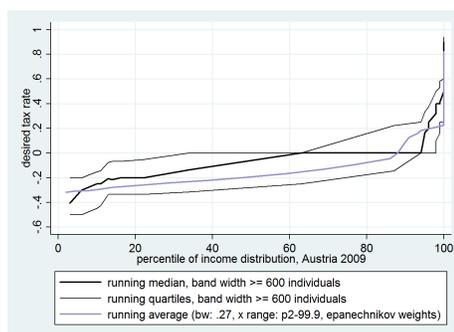
FIGURE 49 – distribution
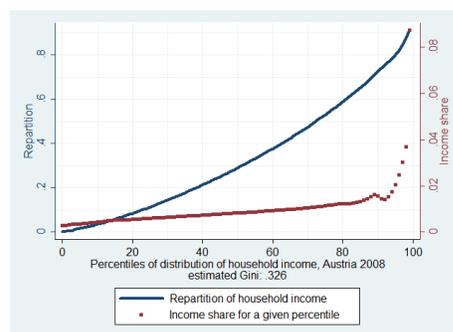
Figure 50 – BELGIUM: desired *additional* tax
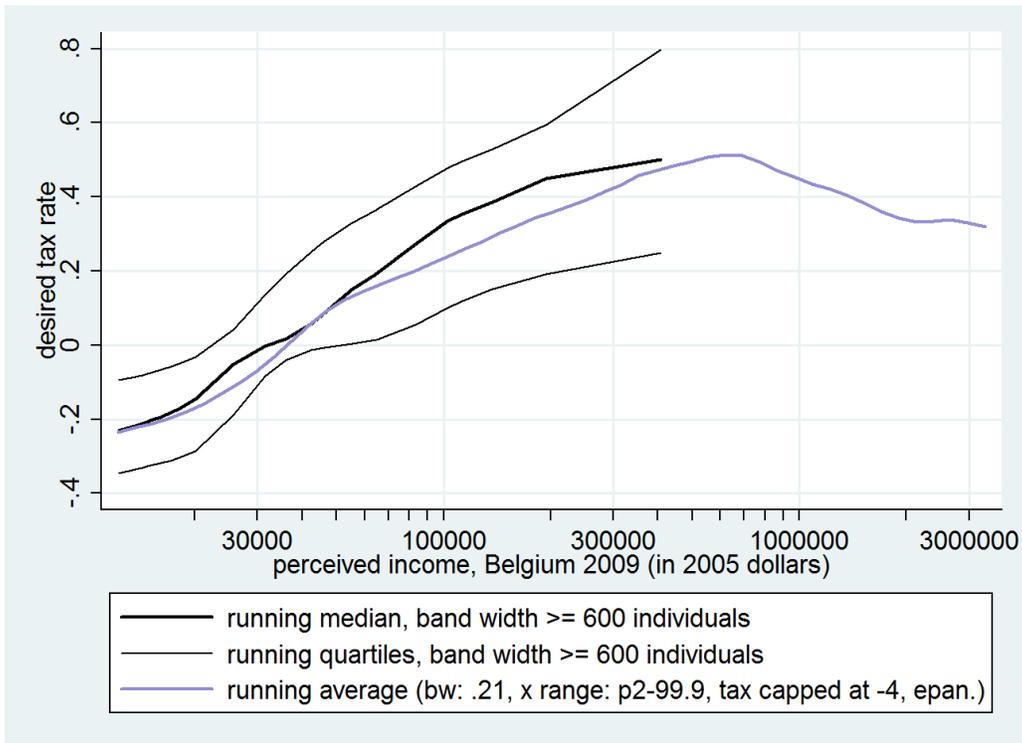
Table 16 – Summary of national statistics for Belgium

| year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
2009	1.70	.25	.40	.50	3.33	.29	32704	-.09	.13

Figure 51 – split party

FIGURE 52 – raw data points, in LCU
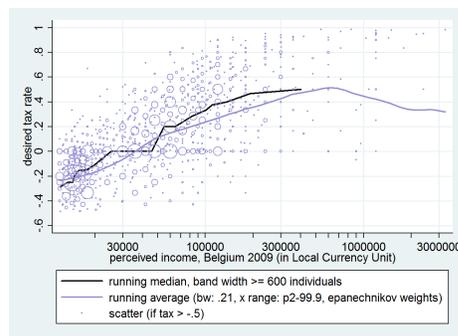
Figure 53 – percentiles
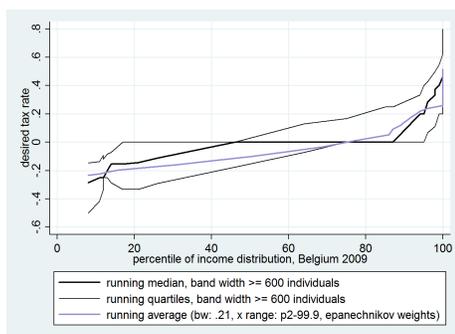
FIGURE 54 – distribution
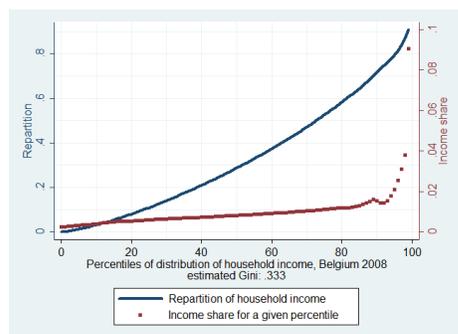
Figure 55 – BULGARIA: desired *additional* tax
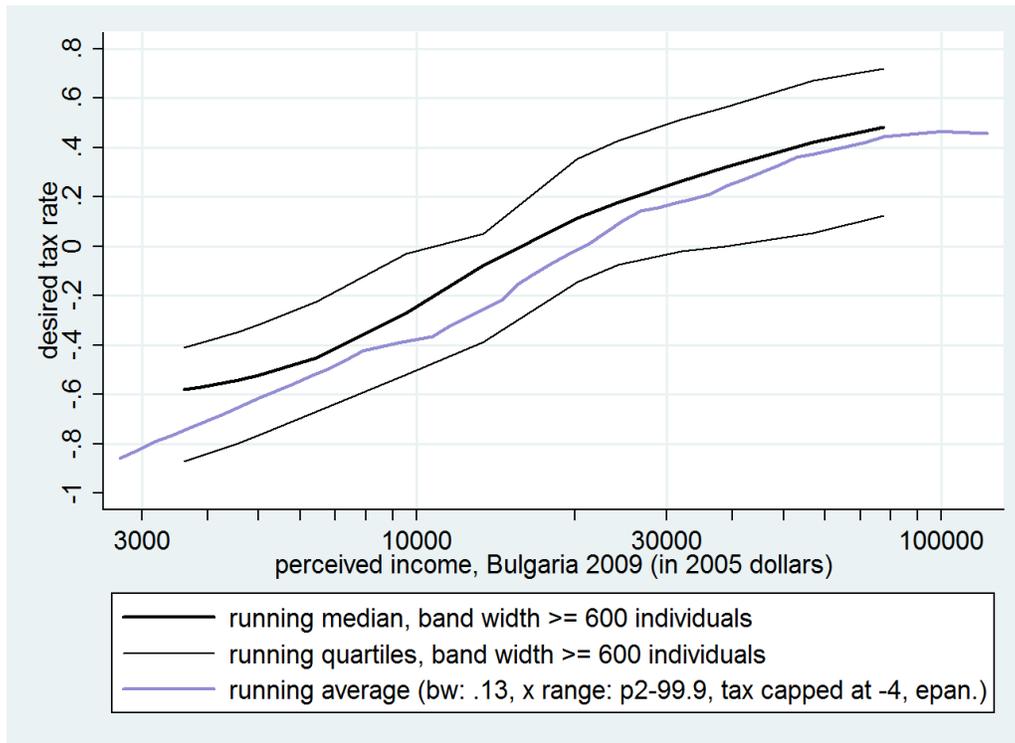
Table 17 – Summary of national statistics for Bulgaria

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1993	1.70	1.67	.33	.47	4.80	.28	9472	.45	.02
1999	1.79	1.50	.25	.50	5.00	.26	5307	.48	.00
2009	2.15	.67	.33	.60	4.00	.36	10726	.14	.10

Figure 56 – evolution
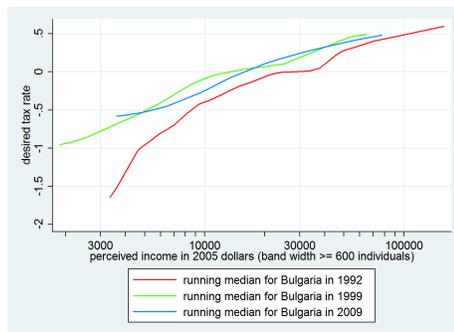
FIGURE 57 – raw data points, in LCU
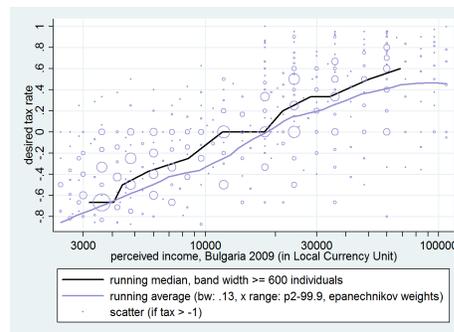
Figure 58 – percentiles
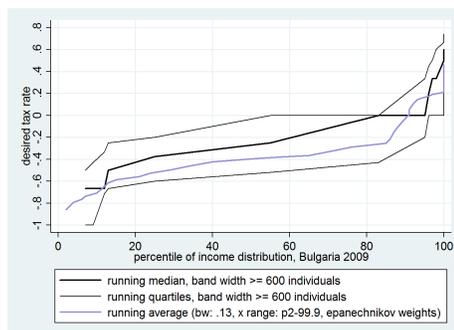
FIGURE 59 – distribution
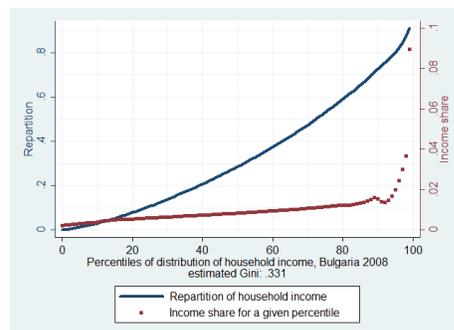
Figure 60 – CANADA (1999): desired *additional* tax
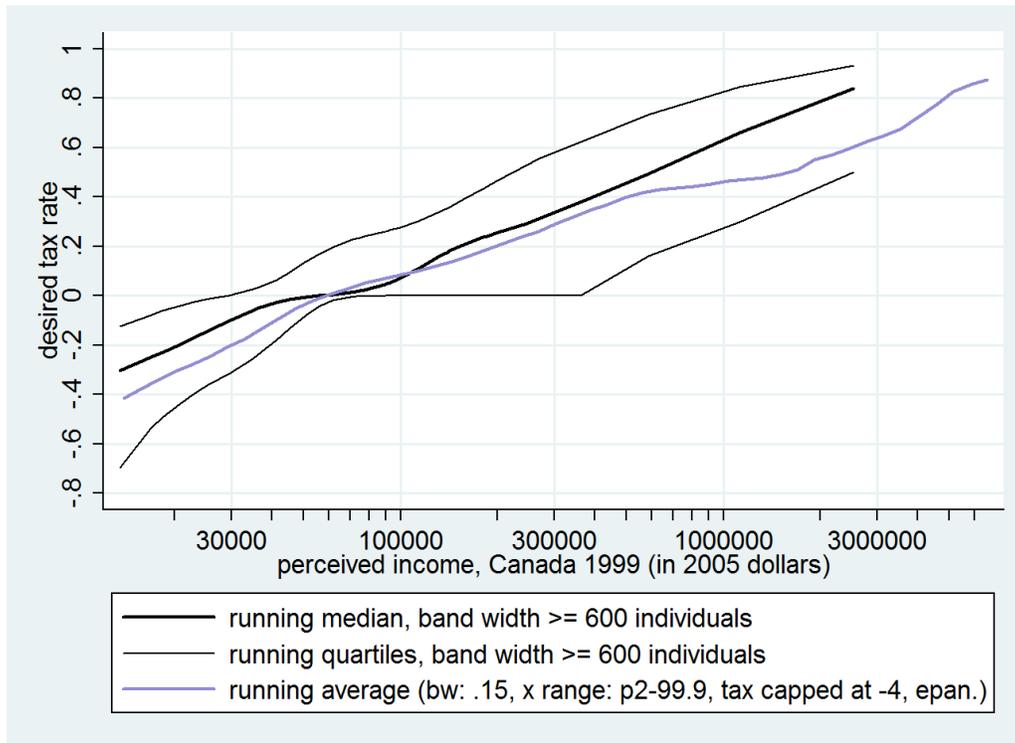
Table 18 – Summary of national statistics for Canada

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1992	1.65	.57	.47	.20	6.00	.31	25876	.24	.04
1999	1.66	.43	.50	.60	7.14	.34	29393	.07	.12

Figure 61 – evolution
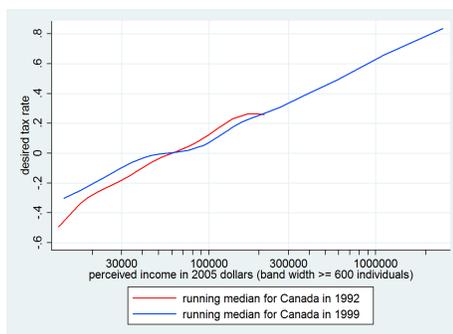
FIGURE 62 – raw data points, in LCU
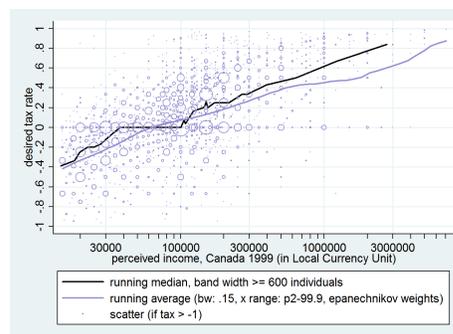
Figure 63 – percentiles (1999)
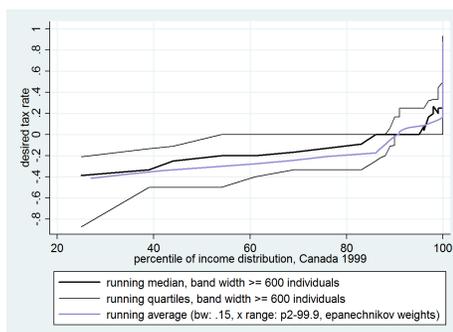

FIGURE 64 – desired vs. current (1999)
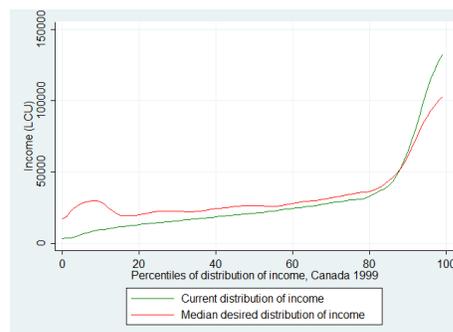
Figure 65 – CHILE: desired *additional* tax
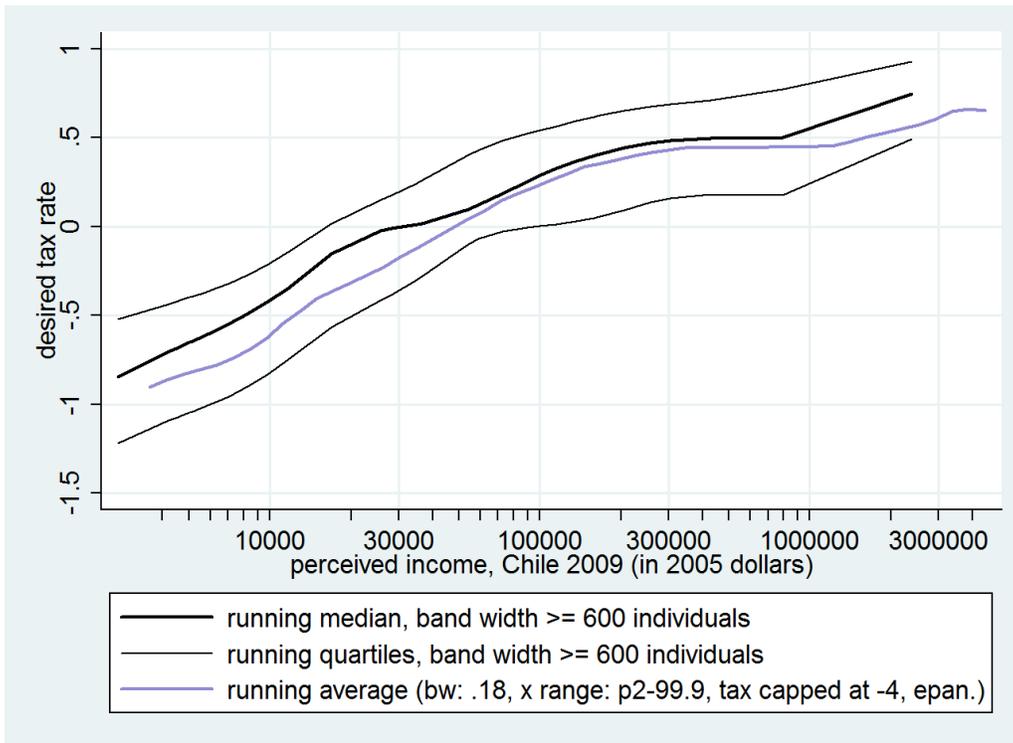
Table 19 – Summary of national statistics for Chile

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc
2000	2.81	1.22	.50	.67	11.11	.55	8305
2009	2.98	1.00	.50	.50	12.50	.52	13328

Figure 66 – evolution
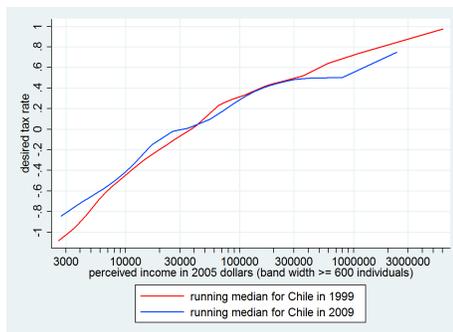
FIGURE 67 – raw data points, in LCU
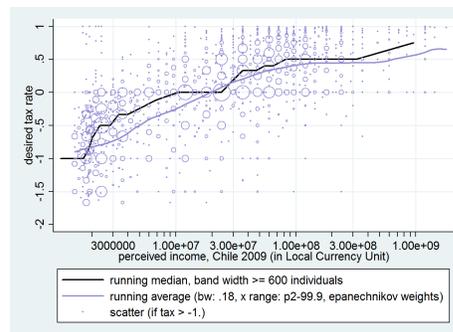

Figure 68 – split income
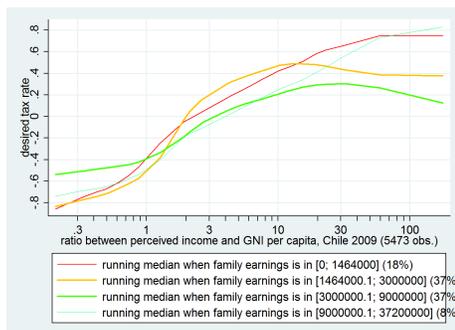
FIGURE 69 – split age
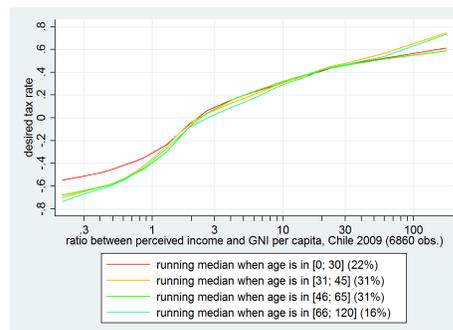
Figure 70 – CHINA: desired *additional* tax
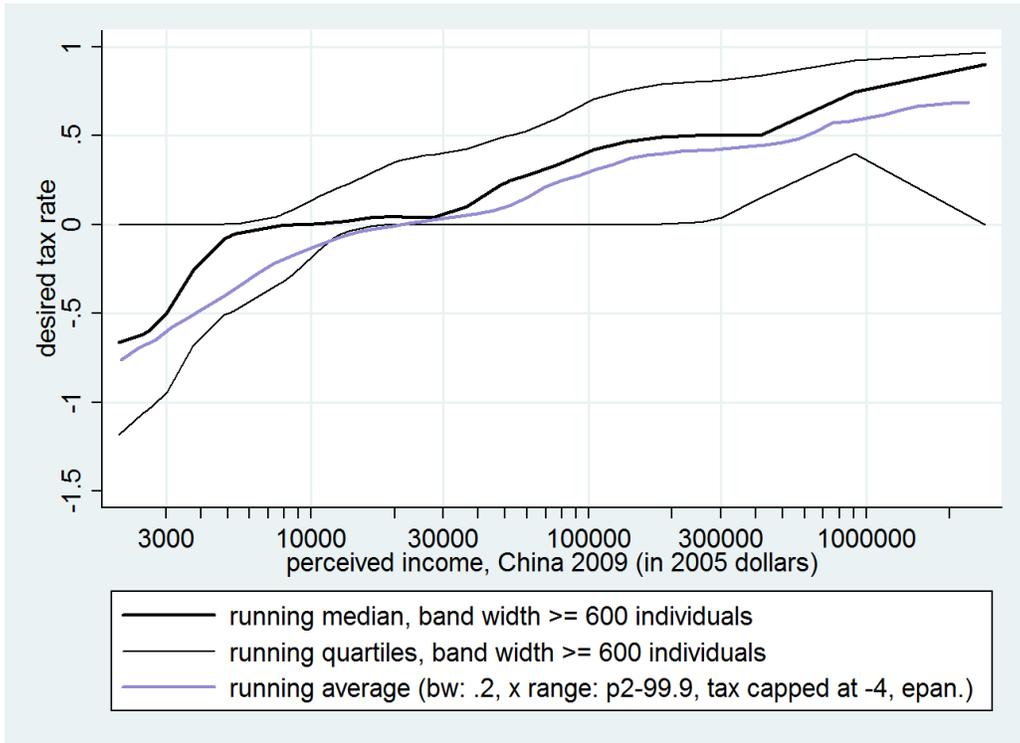
Table 20 – Summary of national statistics for China

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
2008	1.67	.50	.45	.50	7.00	.43	6236	.06	.04

Figure 71 – split degree
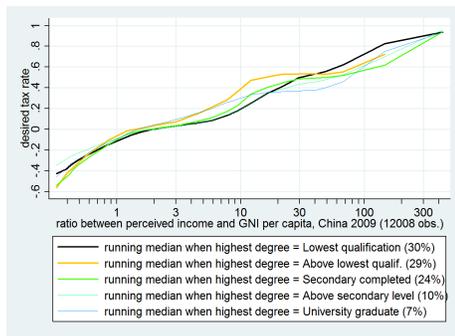
FIGURE 72 – raw data points, in LCU
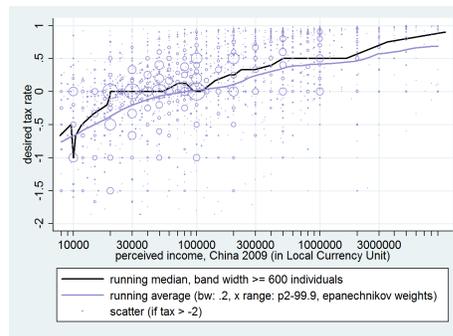
Figure 73 – percentiles
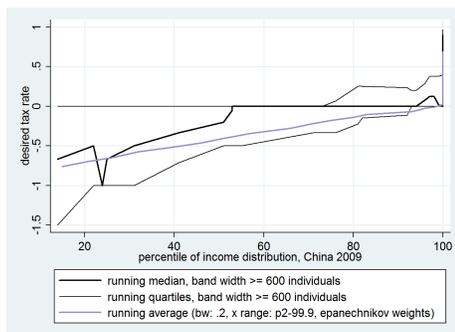

FIGURE 74 – desired vs. current
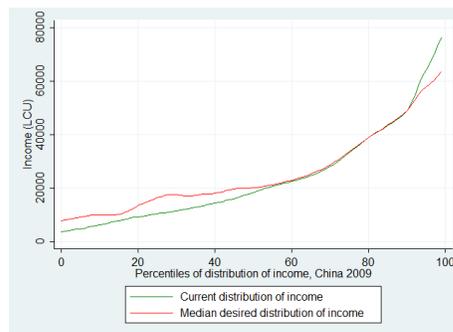
Figure 75 – CROATIA: desired *additional* tax
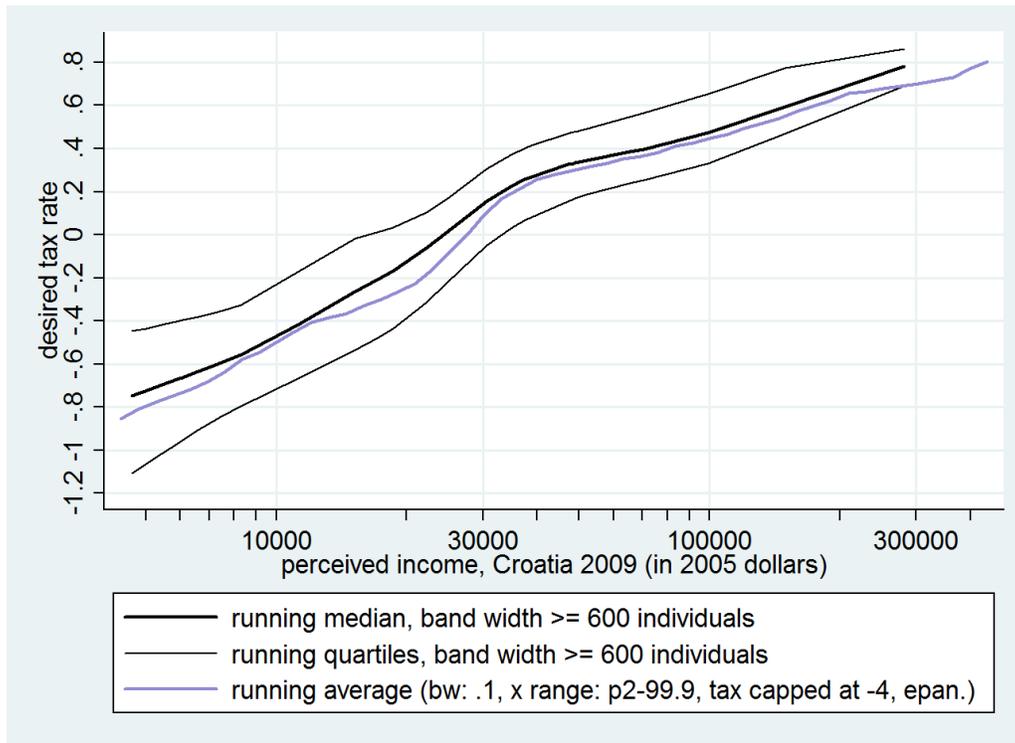
Table 21 – Summary of national statistics for Croatia

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
2009	2.53	.80	.50	.50	4.29	.33	14660	.10	.12

Figure 76 – split party
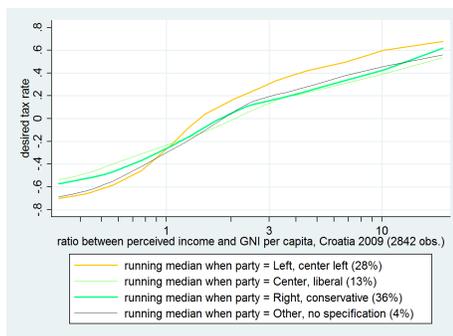
FIGURE 77 – raw data points, in LCU
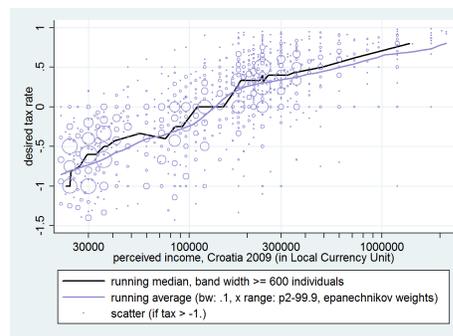
Figure 78 – percentiles
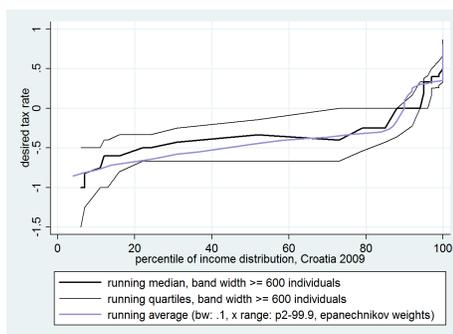
FIGURE 79 – distribution
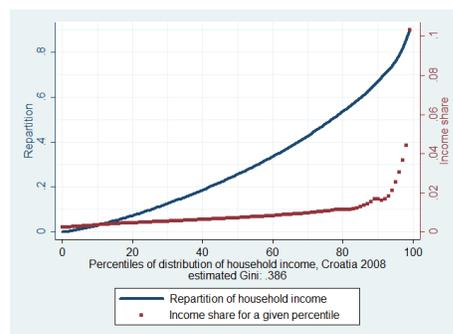
Figure 80 – CYPRUS: desired *additional* tax

running median, band width >= 600 individuals
running quartiles, band width >= 600 individuals
running average (bw: .09, x range: p2-99.9, tax capped at -4, epan.)
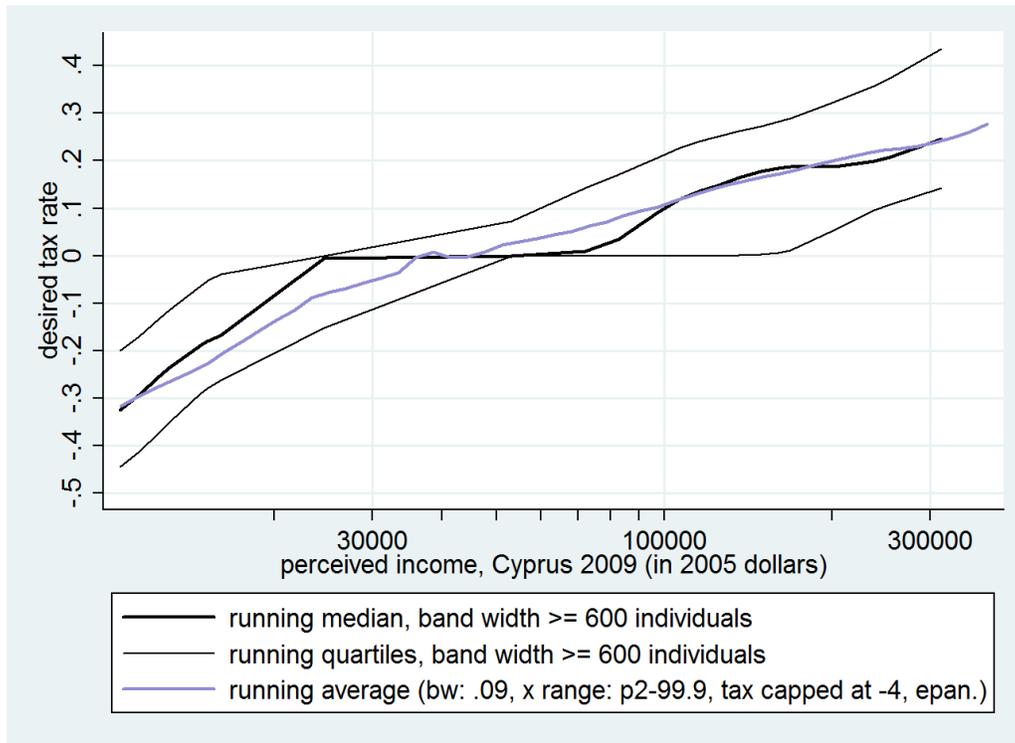
Table 22 – Summary of national statistics for Cyprus

| year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1999	1.55	.33	.35	.33	6.67	.30	20282	.01	.06
2009	1.39	.31	.25	.21	10.00	.32	27418	-.04	.09

Figure 81 – evolution
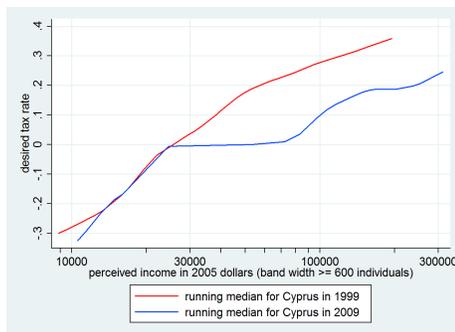
Figure 82 – raw data points, in LCU
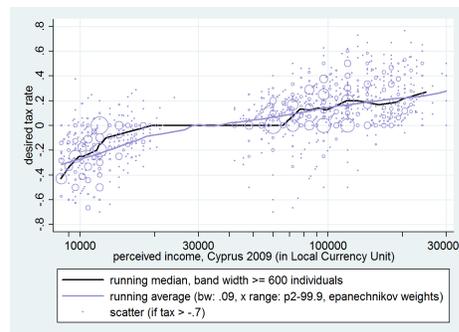
Figure 83 – percentiles
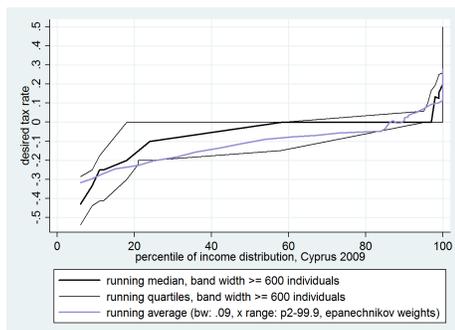
Figure 84 – distribution
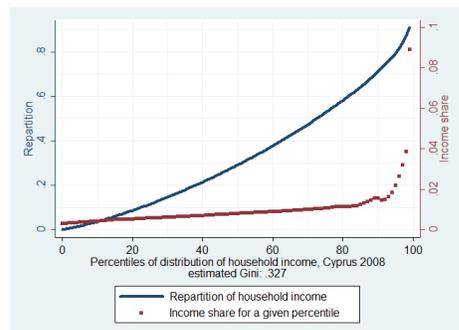
Figure 85 – CZECH REPUBLIC: desired *additional* tax
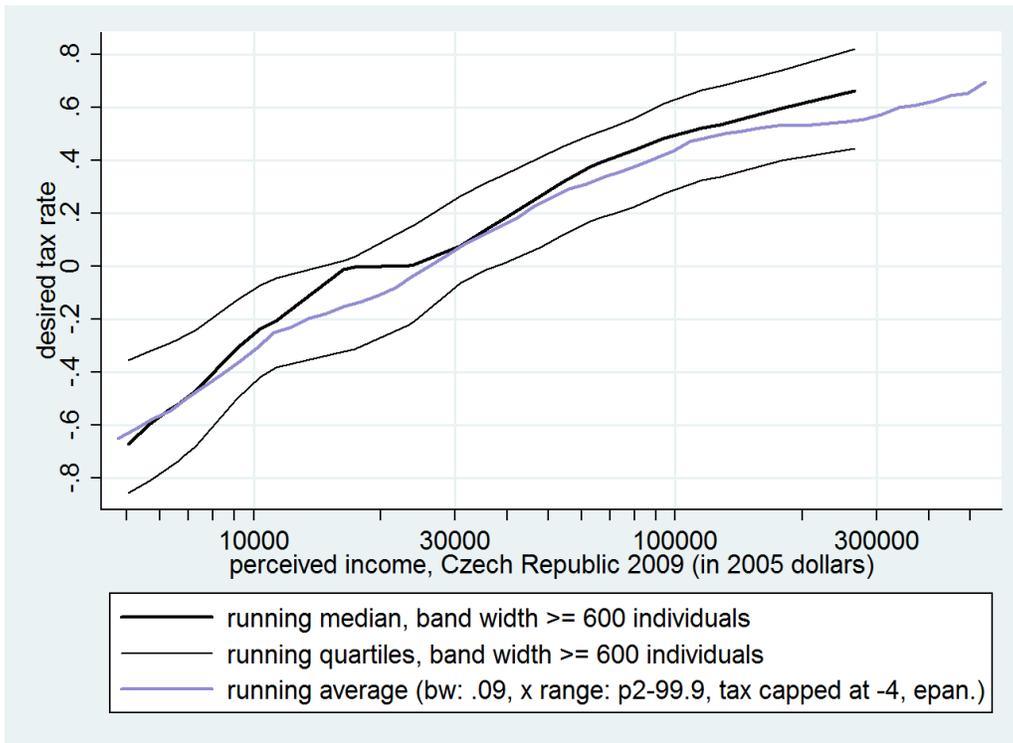
Table 23 – Summary of national statistics for Czech Republic

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1992	1.54	.96	.33	.30	6.25	.27	13697	.14	.04
1999	1.95	.67	.50	.60	10.00	.26	16472	-.07	.06
2008	2.27	.50	.50	.60	5.00	.26	20483	-.06	.11

Figure 86 – evolution
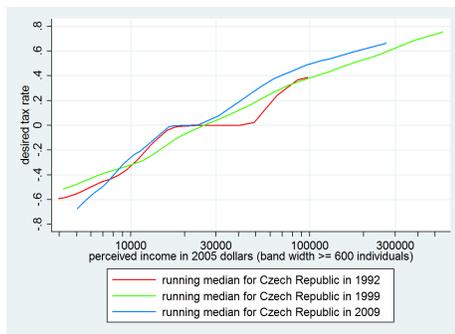
Figure 87 – raw data points, in LCU
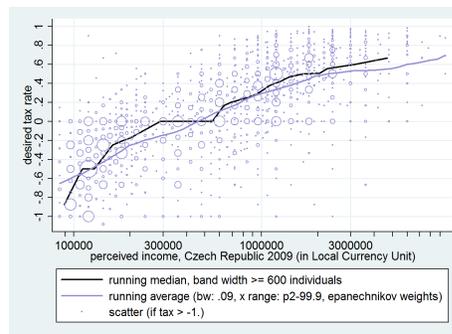
Figure 88 – percentiles
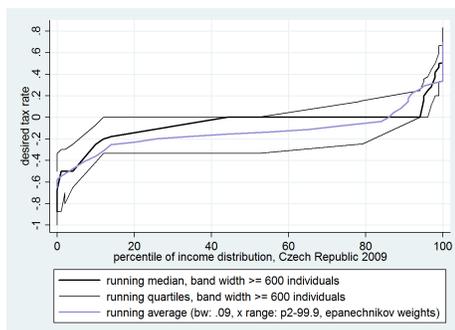
Figure 89 – distribution
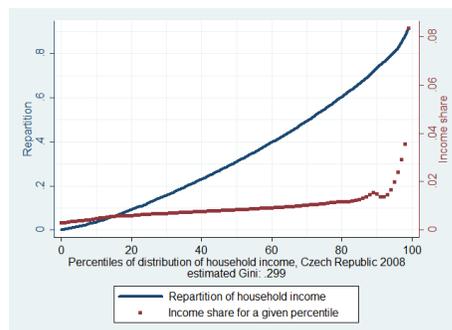
Figure 90 – DENMARK: desired *additional* tax
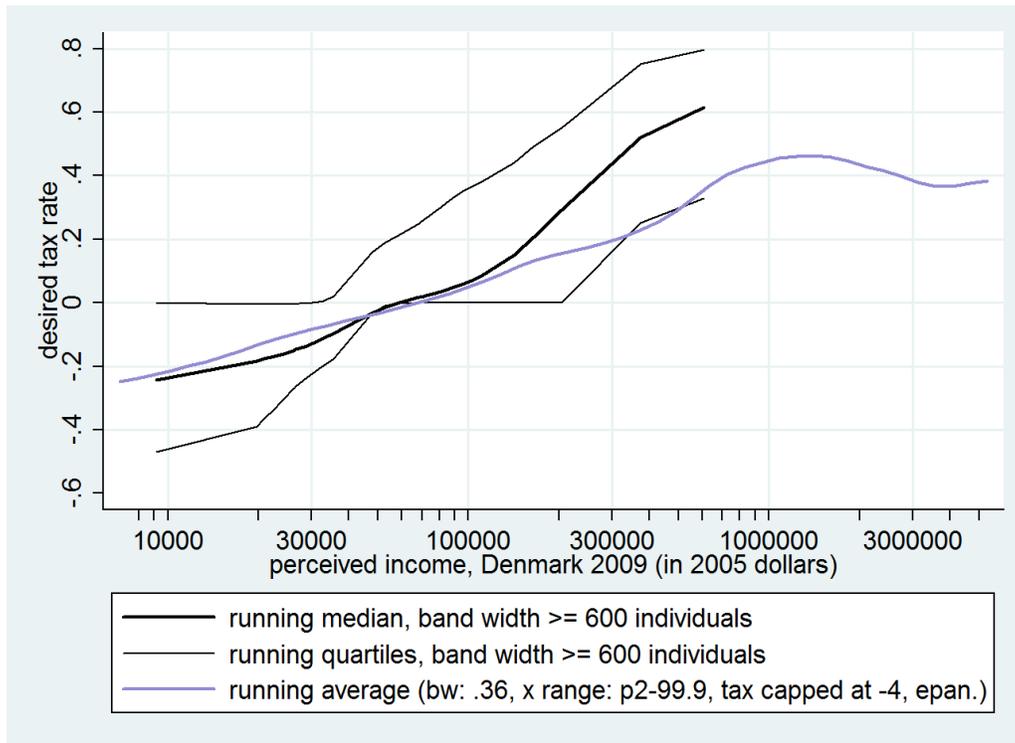
Table 24 – Summary of national statistics for Denmark

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
2009	1.50	.25	.40	.50	3.85	.29	33430	.03	.04

Figure 91 – split party
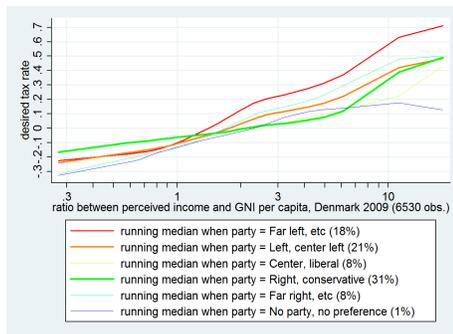
Figure 92 – raw data points, in LCU
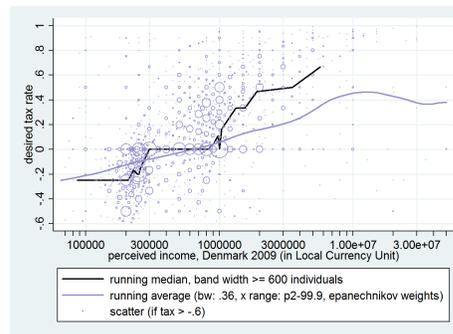
Figure 93 – percentiles
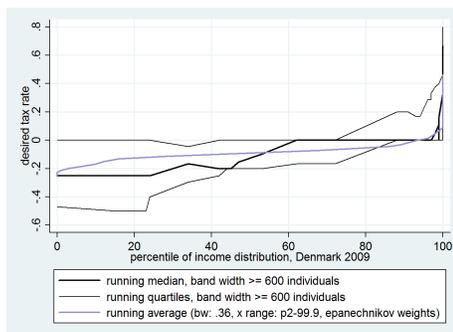
Figure 94 – desired vs. current
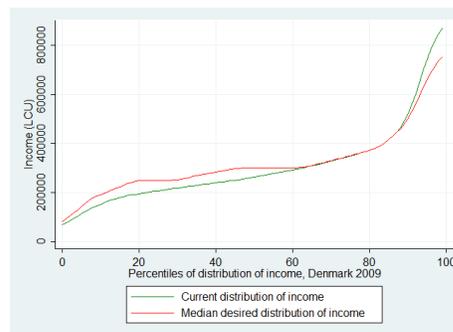
Figure 95 – ESTONIA: desired *additional* tax
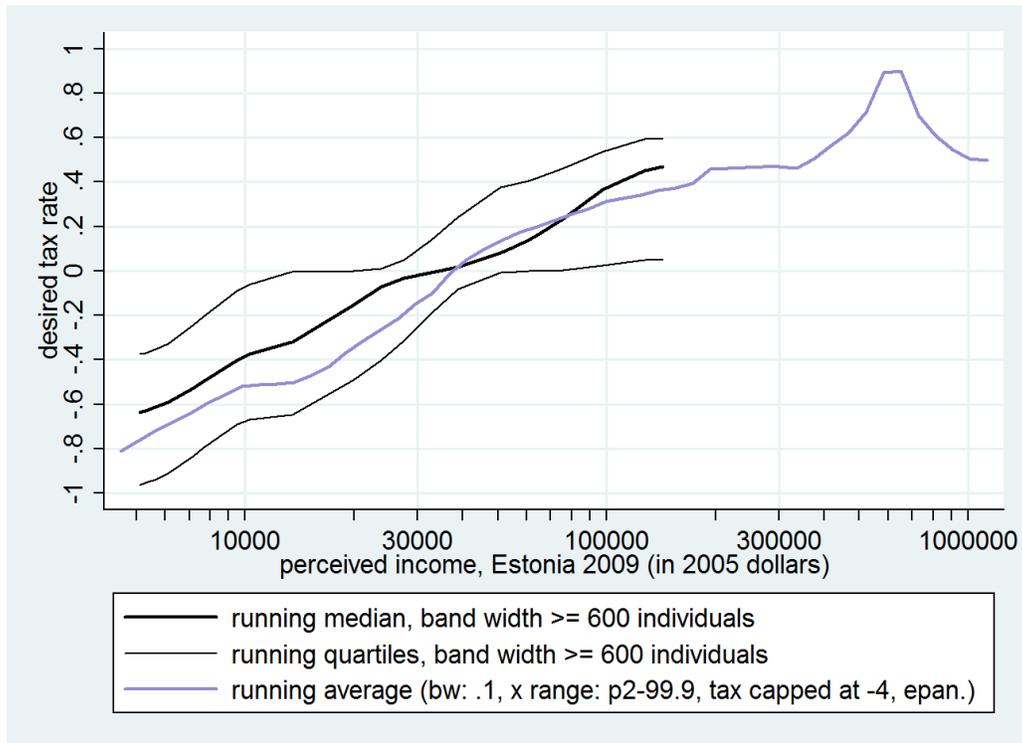
Table 25 – Summary of national statistics for Estonia

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
2010	1.84	.82	.38	.50	6.00	.32	15458	.15	.07

Figure 96 – split age
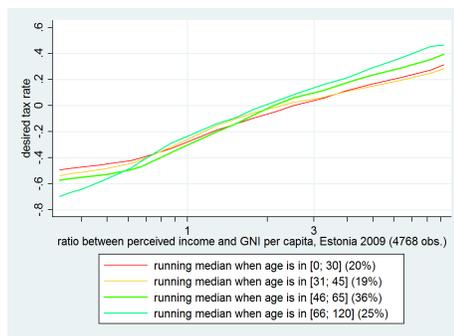
FIGURE 97 – raw data points, in LCU
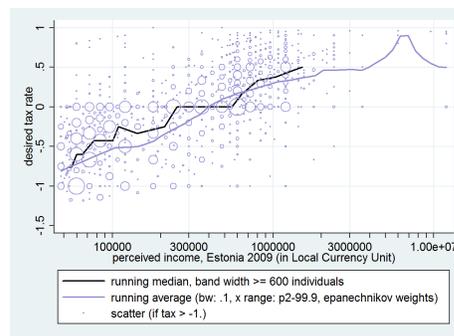
Figure 98 – percentiles
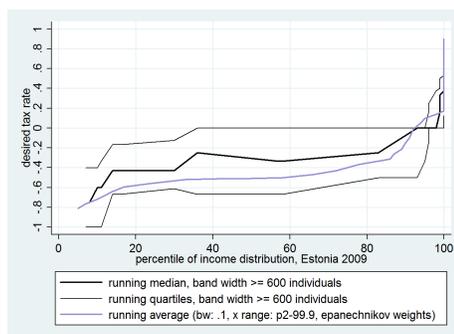
FIGURE 99 – distribution
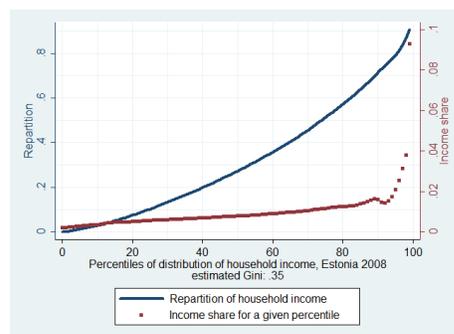
Figure 100 – FINLAND: desired *additional* tax
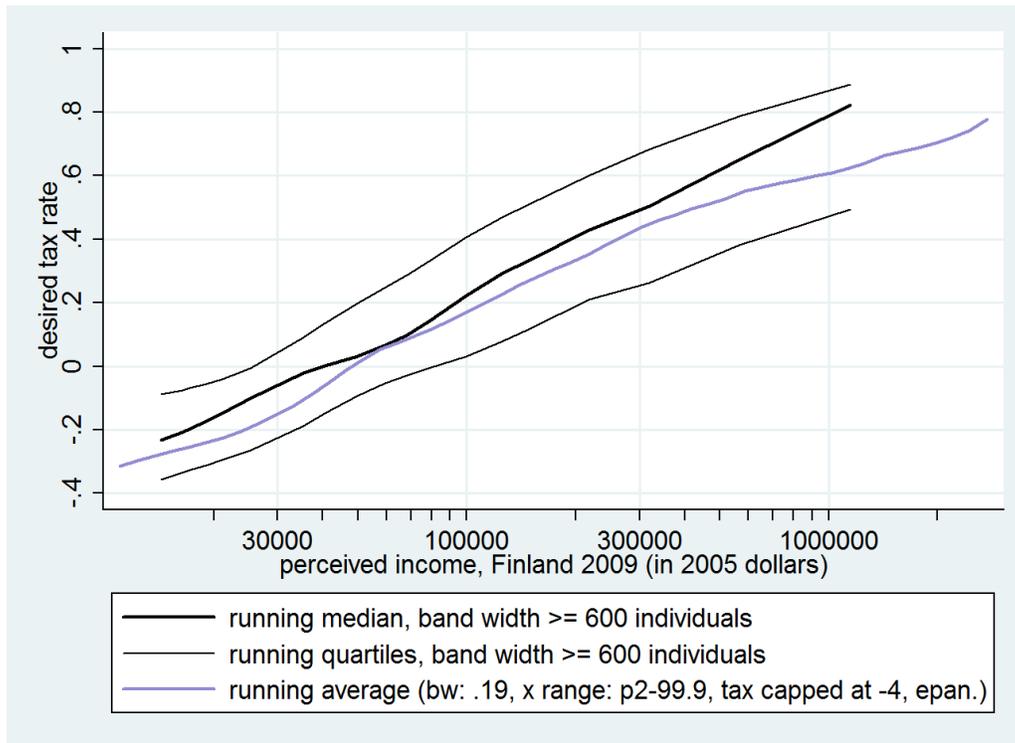
Table 26 – Summary of national statistics for Finland

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
2009	1.73	.33	.50	.70	5.00	.28	31439	-.01	.08

Figure 101 – split party
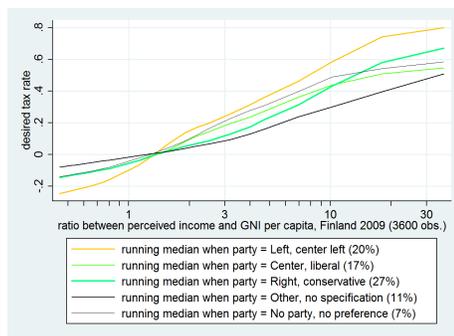
Figure 102 – raw data points, in LCU
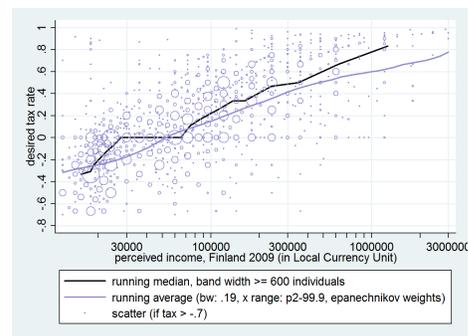
Figure 103 – percentiles
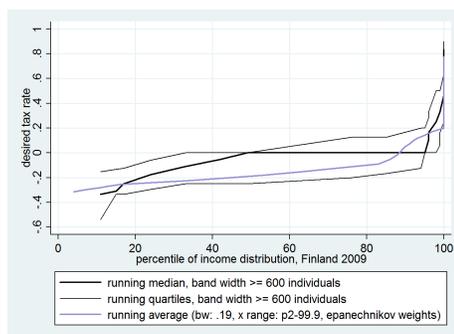


Figure 104 – distribution
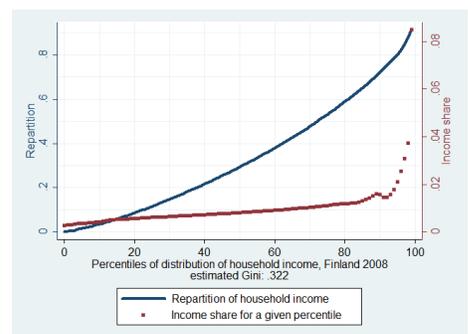
Figure 105 – FRANCE: desired *additional* tax
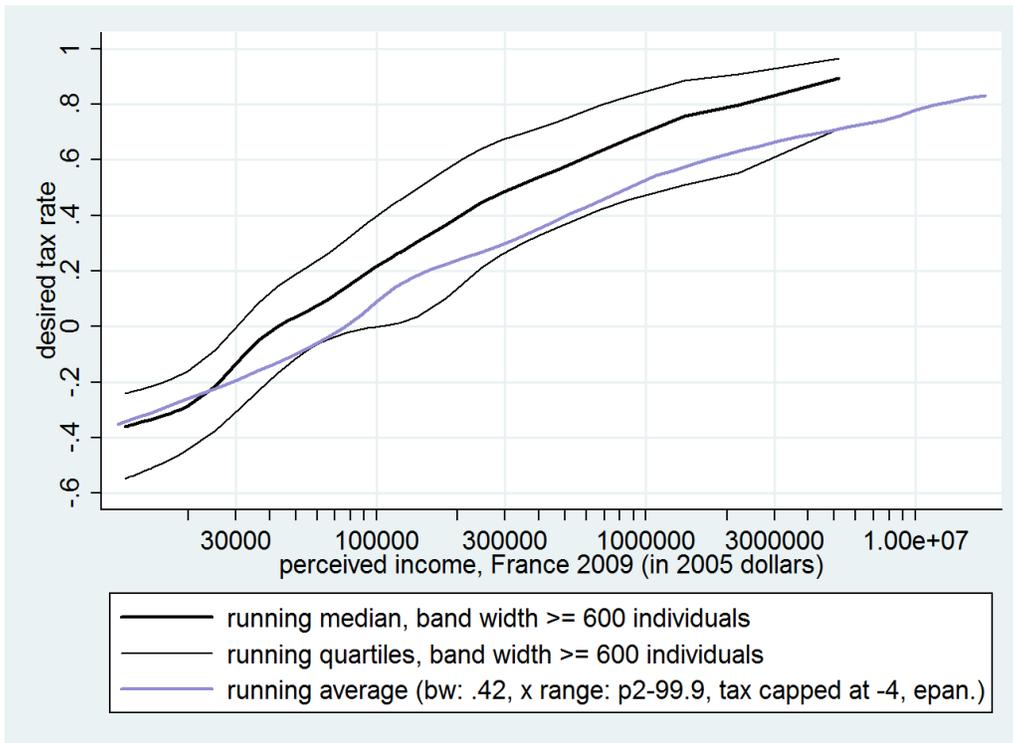
Table 27 – Summary of national statistics for France

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1999	2.17	.50	.58	.66	7.69	.38	28670	.03	.10
2009	2.60	.50	.60	.80	6.67	.34	30856	-.02	.11

Figure 106 – evolution
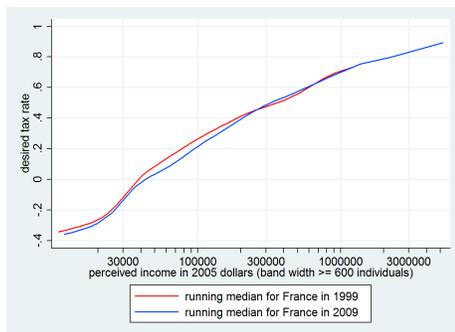

FIGURE 107 – raw data points, in LCU
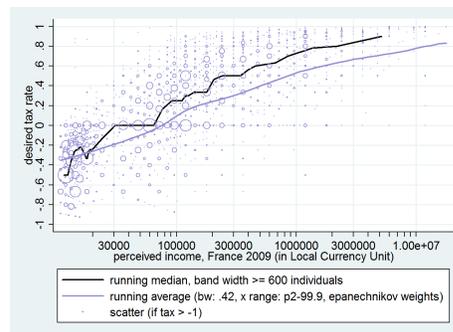
Figure 108 – percentiles
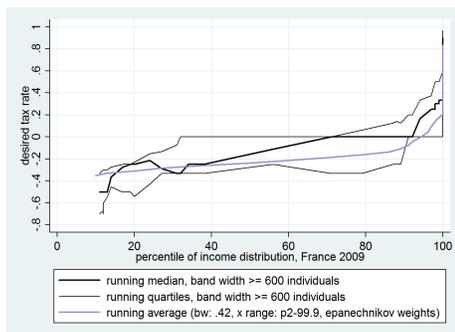
FIGURE 109 – desired vs. current
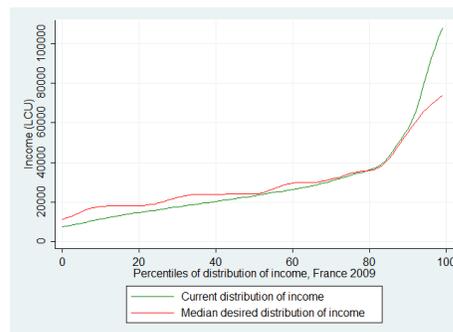
Figure 110 – GERMANY East: desired *additional* tax
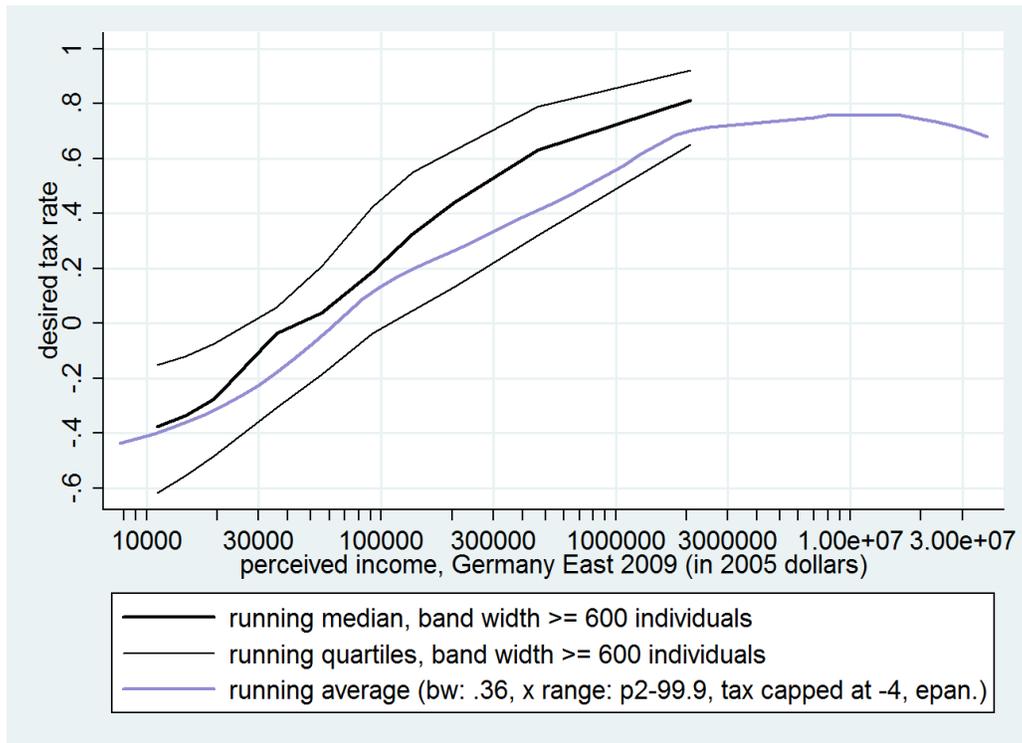
Table 28 – Summary of national statistics for Germany East

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc
1992	2.15	.71	.50	.50	6.67		30177
2000	1.88	.43	.50	.60	6.00		30436
2010	2.82	.50	.63	.84	6.67	.31	34283

Figure 111 – evolution
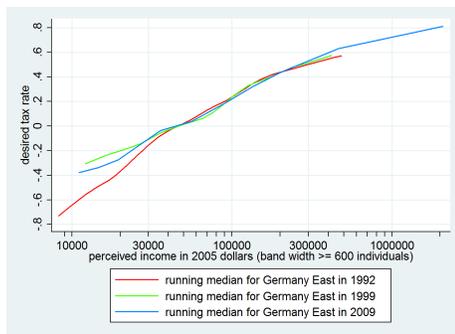
FIGURE 112 – raw data points, in LCU
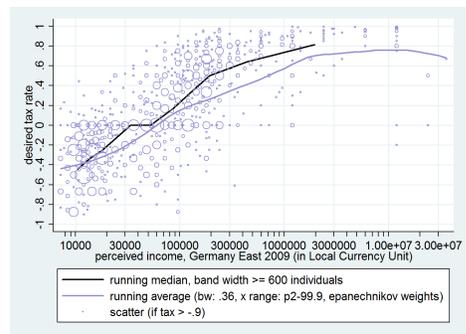
Figure 113 – Comparison with West
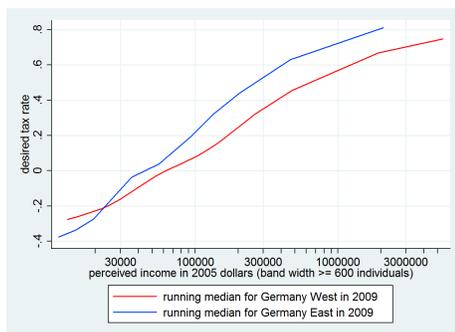
FIGURE 114 – split party (1999)
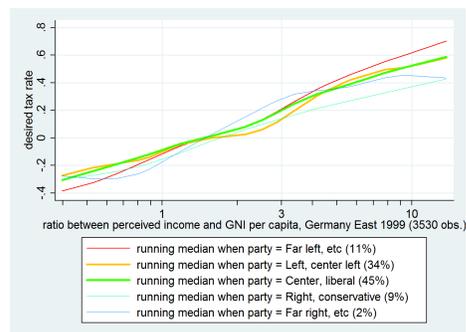
Figure 115 – GERMANY West: desired *additional* tax
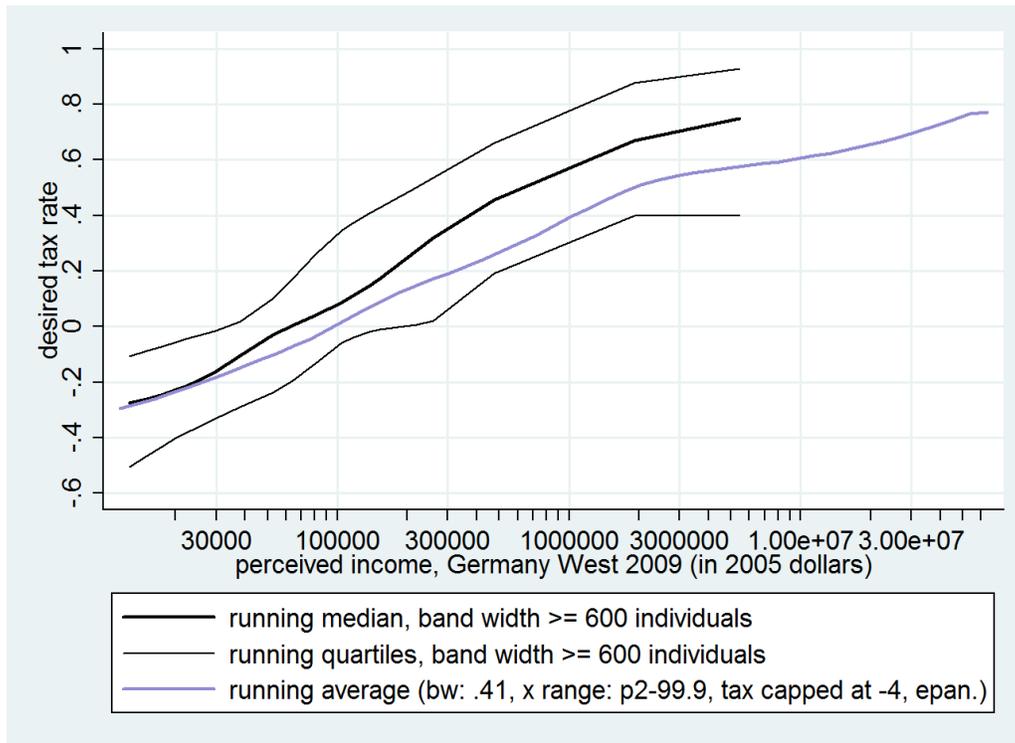
Table 29 – Summary of national statistics for Germany West

year	median	contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1987	1.73		.33	.50	.50	5.00	.37	27595	.03	.06
1992	1.75		.43	.50	.44	6.67	.38	30177	.07	.05
2000	1.56		.33	.40	.38	6.67	.41	30436	.04	.05
2010	2.01		.39	.50	.70	7.50	.31	34283	.01	.10

Figure 116 – evolution
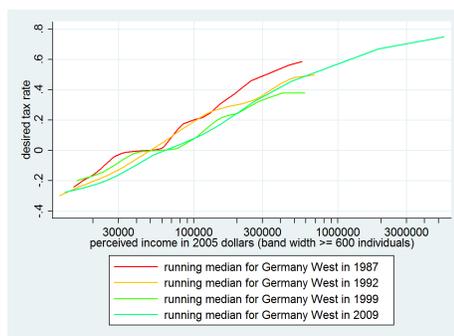

FIGURE 117 – raw data points, in LCU
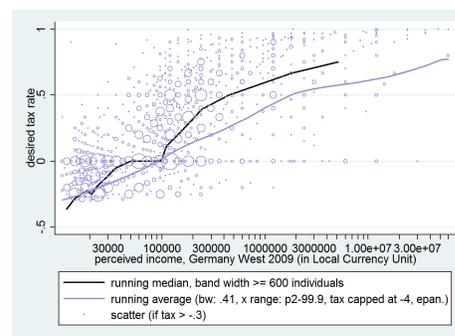
Figure 118 – percentiles
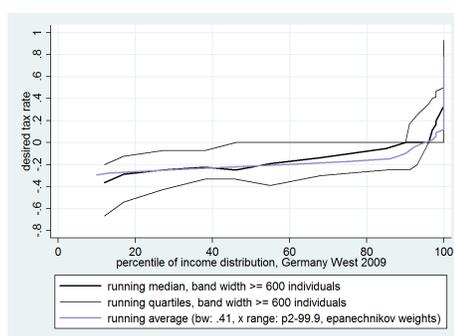
FIGURE 119 – desired vs. current
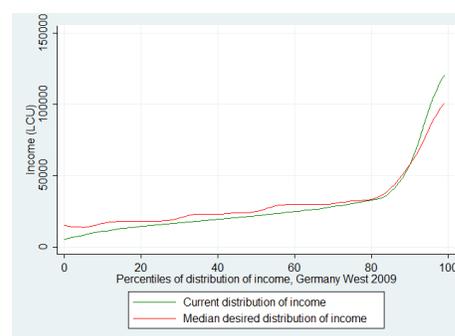
Figure 120 – GREAT BRITAIN: desired *additional* tax
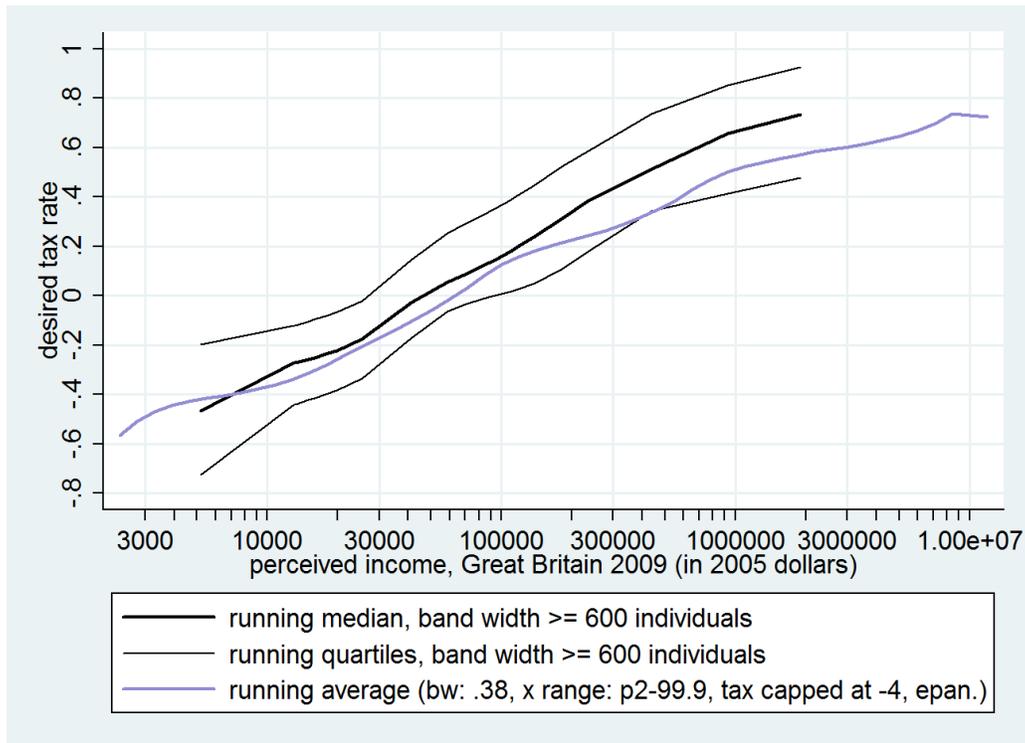
Table 30 – Summary of national statistics for Great Britain

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1987	1.75	.50	.40	.50	5.83	.40	22304	.07	.04
1992	1.84	.50	.50	.57	8.00	.45	23692	.14	.05
1999	1.82	.50	.50	.50	7.69	.47	28554	.04	.10
2010	2.02	.39	.50	.67	6.67	.35	29950	-.02	.11

Figure 121 – evolution
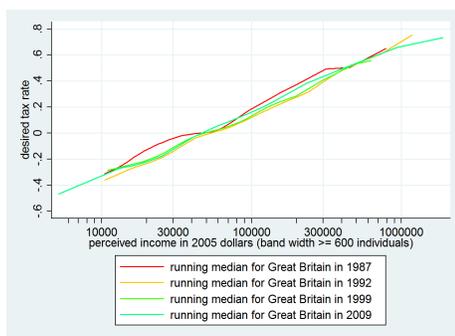

FIGURE 122 – raw data points, in LCU
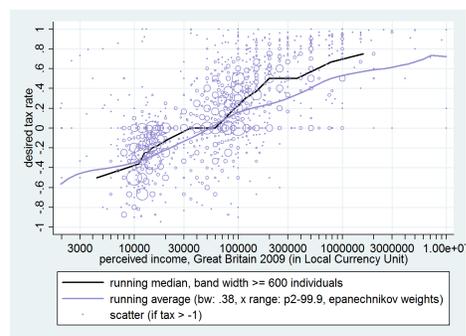
Figure 123 – percentiles
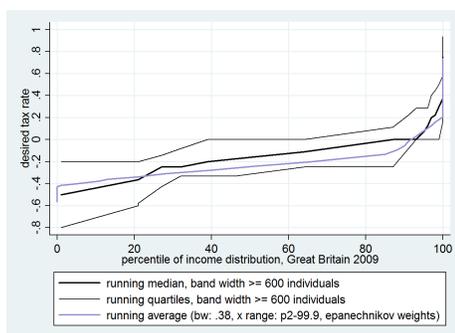
FIGURE 124 – desired vs. current
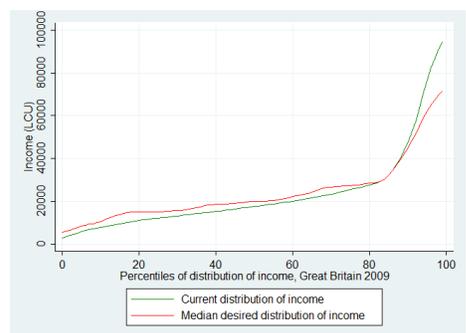
Figure 125 – HUNGARY: desired *additional* tax
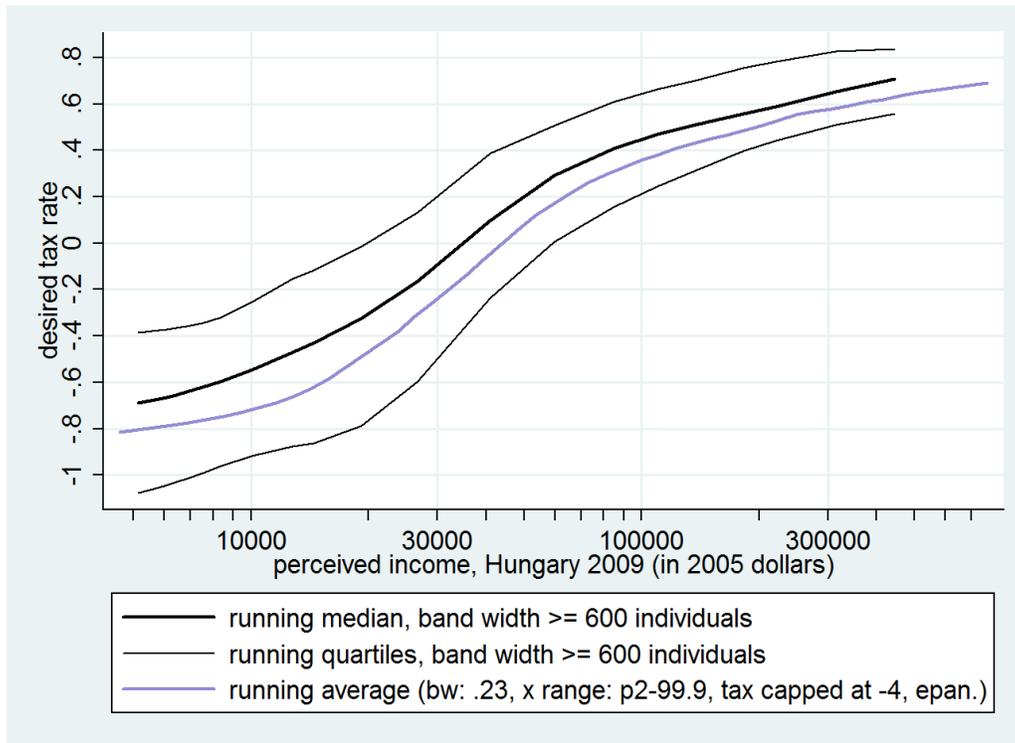
Table 31 – Summary of national statistics for Hungary

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1987	1.40	.60	.40	.43	3.75	.21	859	.28	.03
1992	2.33	1.22	.50	.55	4.71	.28	13475	.23	.05
1998	2.40	1.22	.50	.60	6.67	.26	11866	.49	.03
2009	3.23	.92	.60	.75	6.67	.27	16022	.21	.09

Figure 126 – evolution
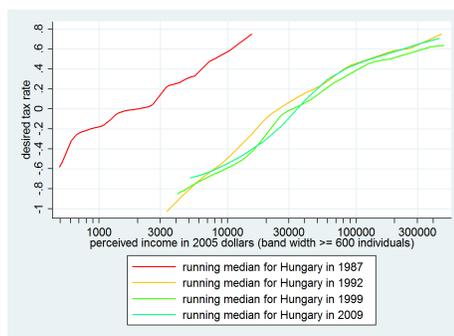
FIGURE 127 – raw data points, in LCU
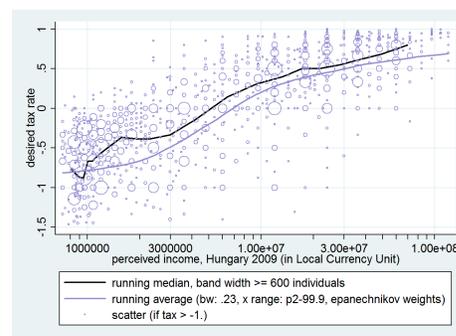
Figure 128 – percentiles
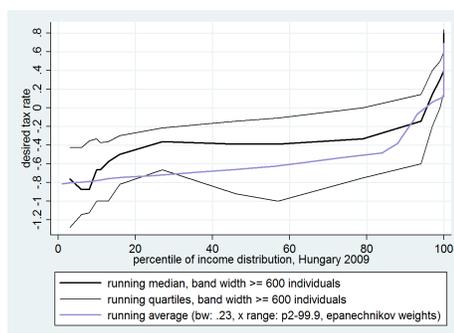
FIGURE 129 – distribution
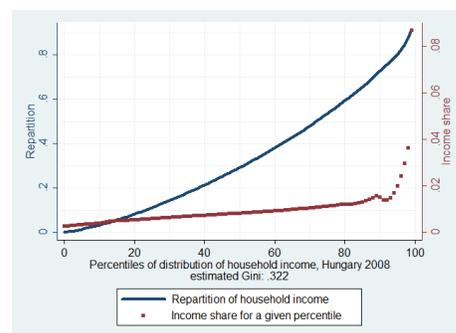
Figure 130 – ICELAND: desired *additional* tax
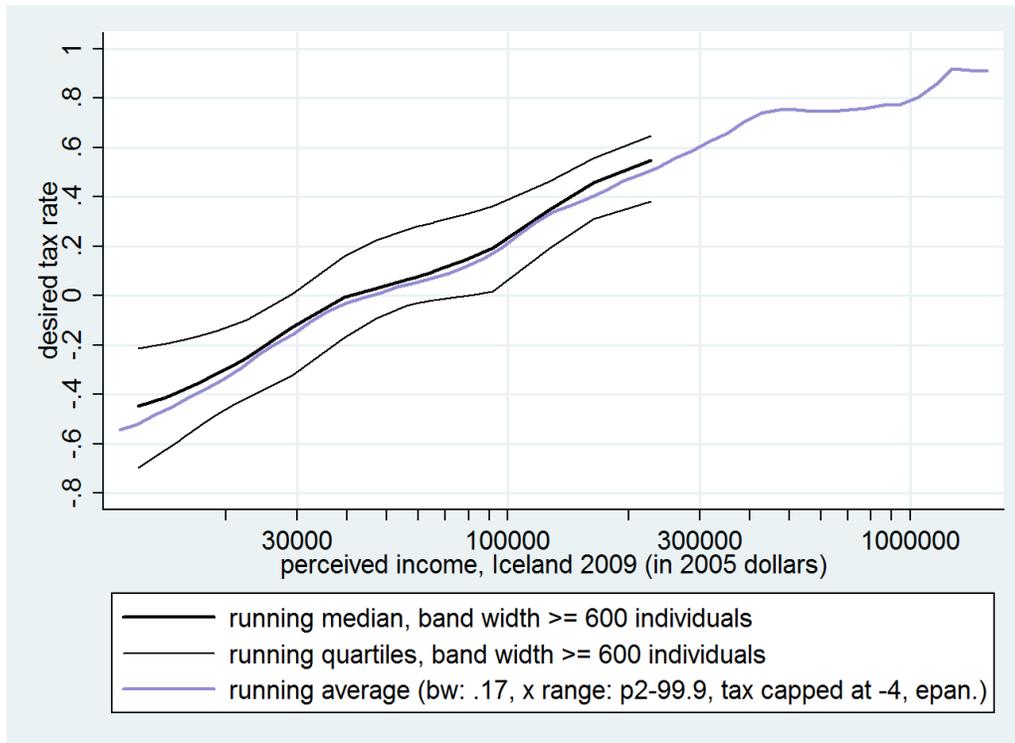
Table 32 – Summary of national statistics for Iceland

| year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
2010	1.87	.50	.40	.60	3.20	.26	27677	.05	.09

Figure 131 – split party
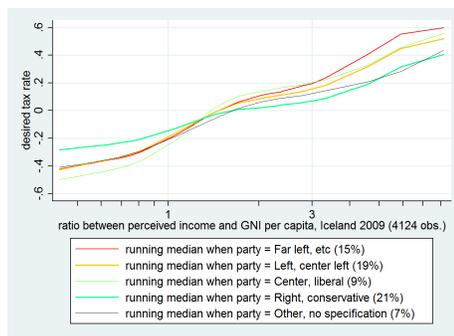
FIGURE 132 – raw data points, in LCU
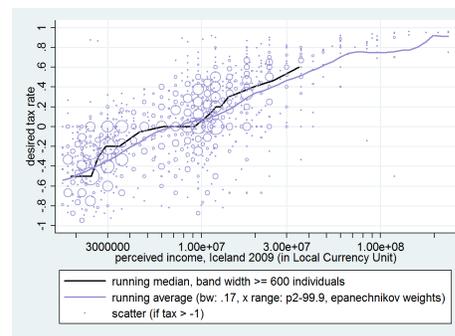
Figure 133 – percentiles
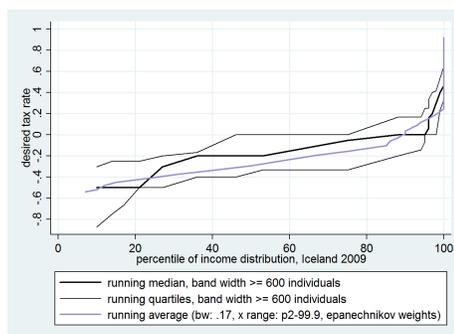
FIGURE 134 – distribution
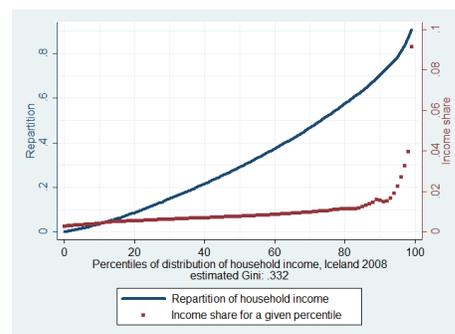
Figure 135 – ISRAEL: desired *additional* tax
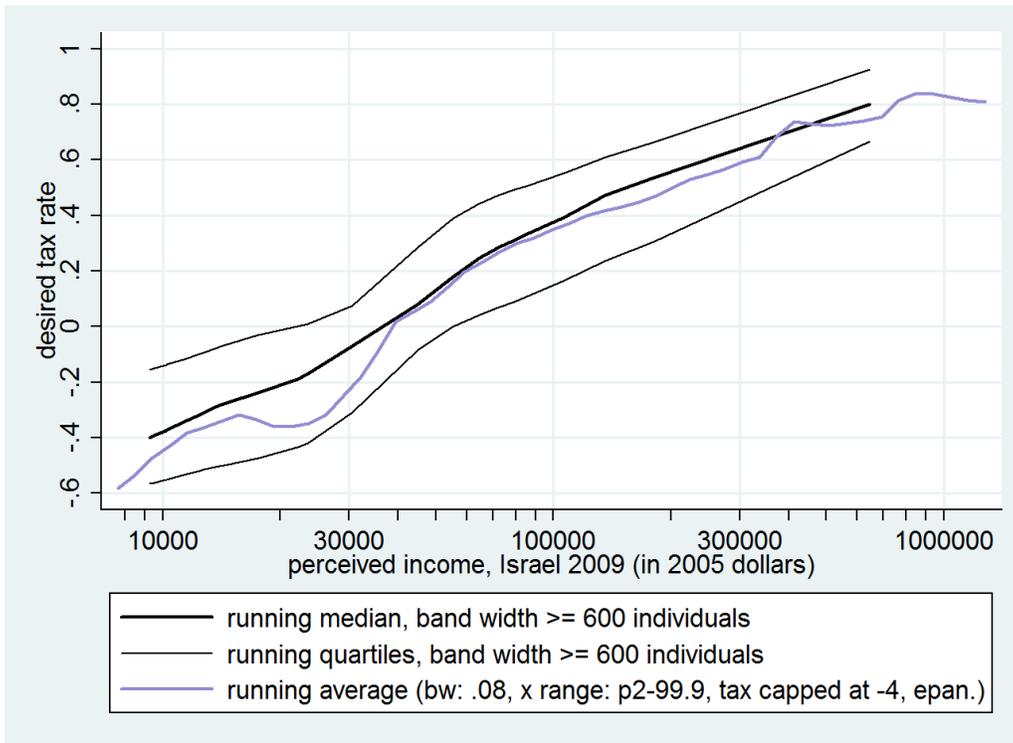
Table 33 – Summary of national statistics for Israel

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1999	1.84	.67	.50	.44	7.50	.38	19274	.10	.07
2009	2.07	.50	.47	.57	4.17	.43	22516	.04	.14

Figure 136 – evolution
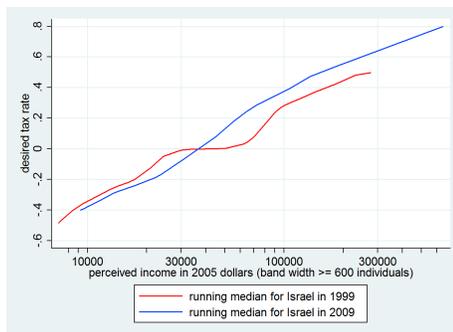
Figure 137 – raw data points, in LCU
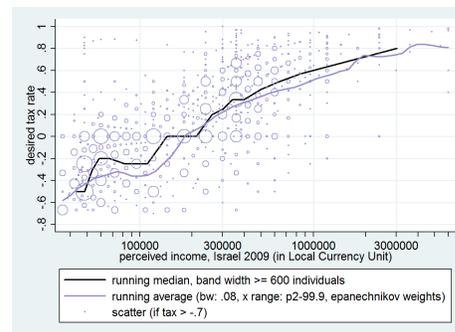
Figure 138 – percentiles
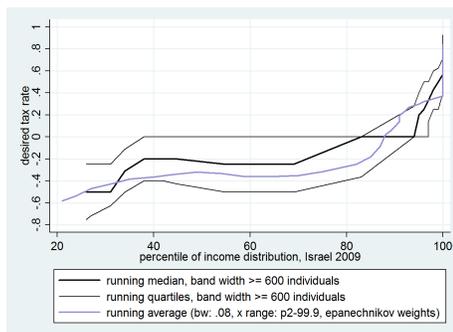
Figure 139 – distribution
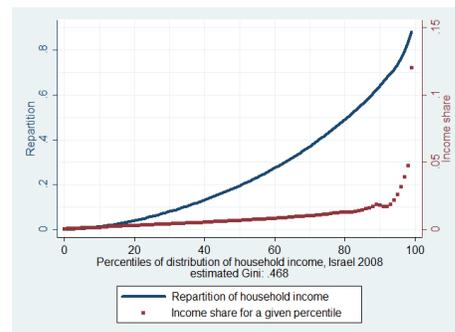
Figure 140 – ITALY: desired *additional* tax
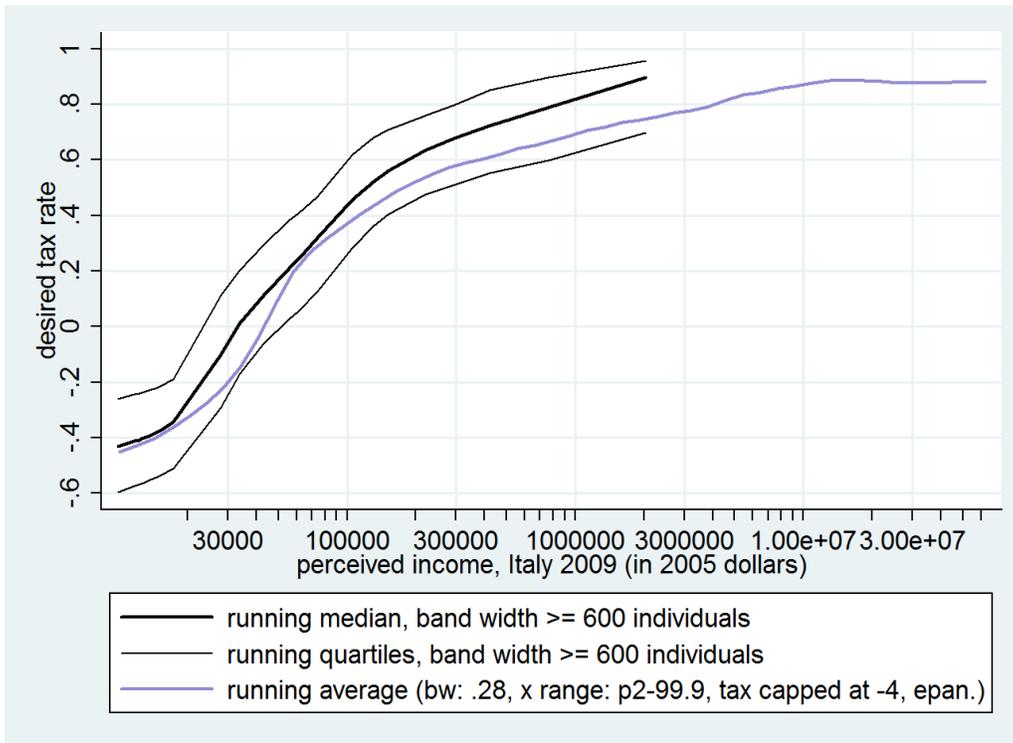
Table 34 – Summary of national statistics for Italy

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1992	1.81	.45	.50	.50	6.26	.36	25969	.02	.06
2011	3.83	.50	.75	.84	5.00	.35	28804	-.05	.16

Figure 141 – evolution
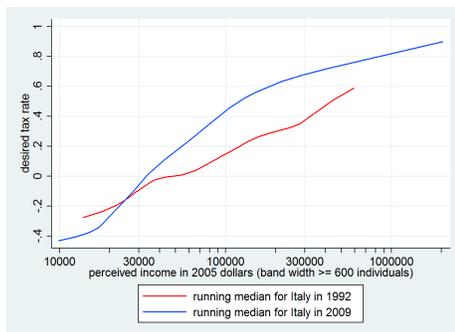
FIGURE 142 – raw data points, in LCU
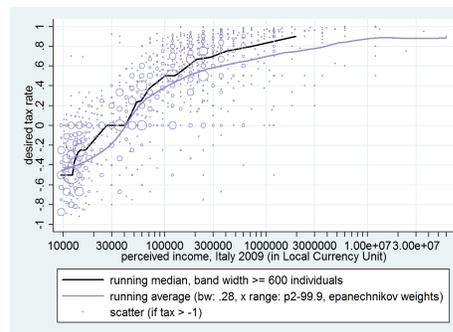
Figure 143 – percentiles
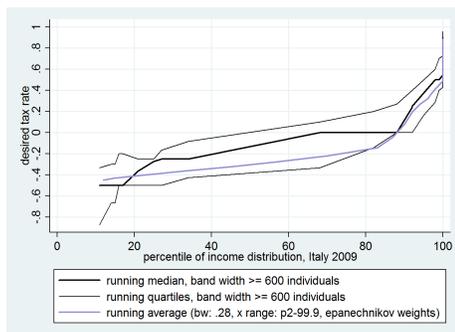
FIGURE 144 – desired vs. current
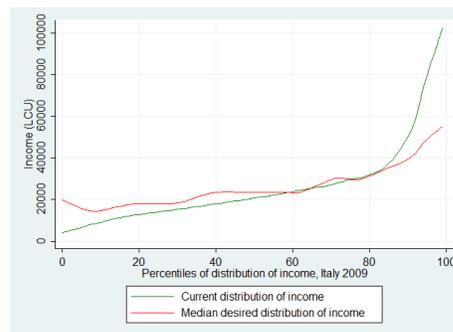
Figure 145 – JAPAN: desired *additional* tax
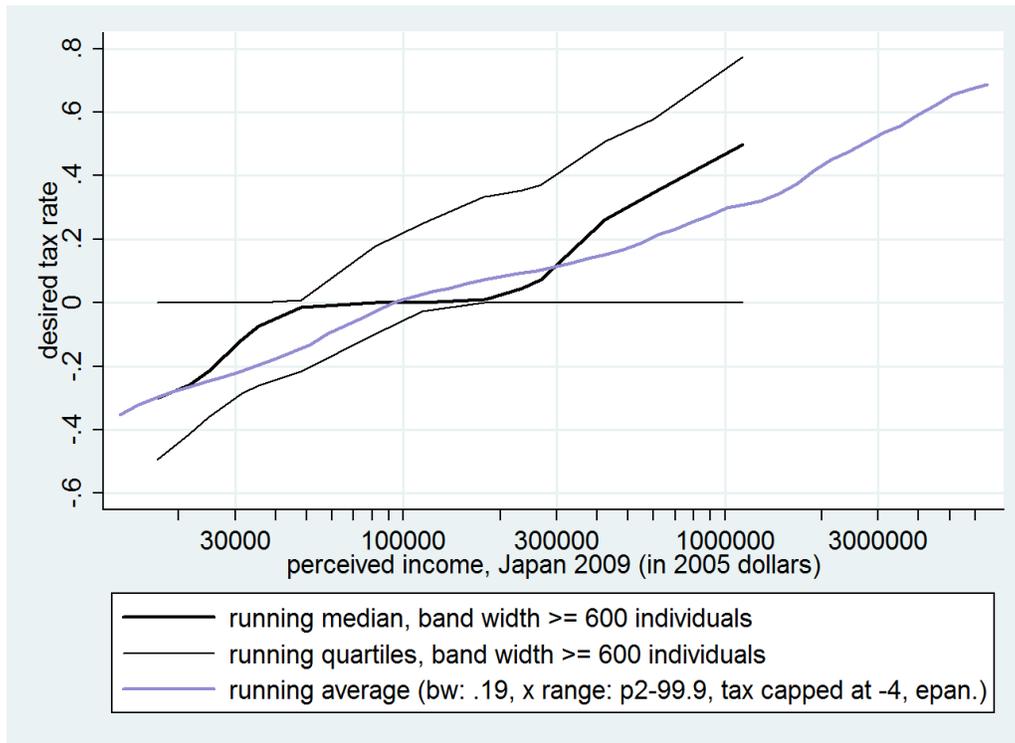
Table 35 – Summary of national statistics for Japan

year	median	contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1999	1.51		.40	.25	.38	6.00	.37	25364	.12	.04
2009	1.50		.33	.27	.50	6.67	.32	27542	.16	.07

Figure 146 – evolution
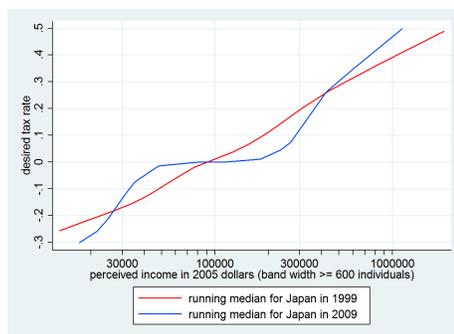
Figure 147 – raw data points, in LCU
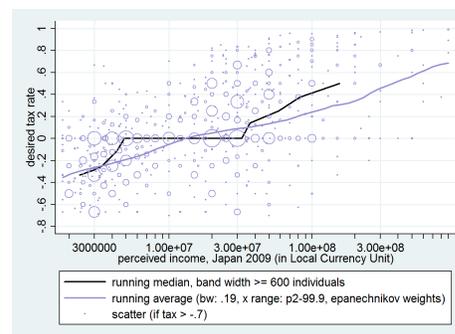
Figure 148 – percentiles
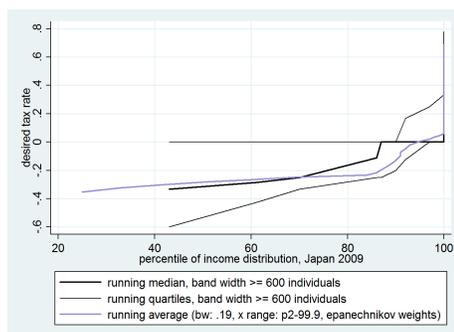

Figure 149 – desired vs. current
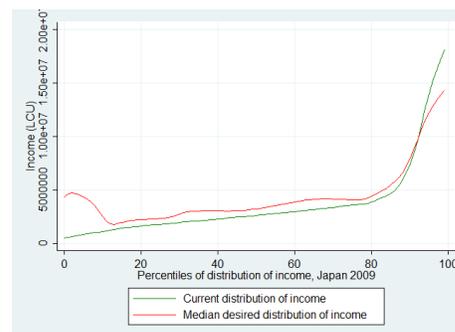
Figure 150 – KOREA: desired *additional* tax
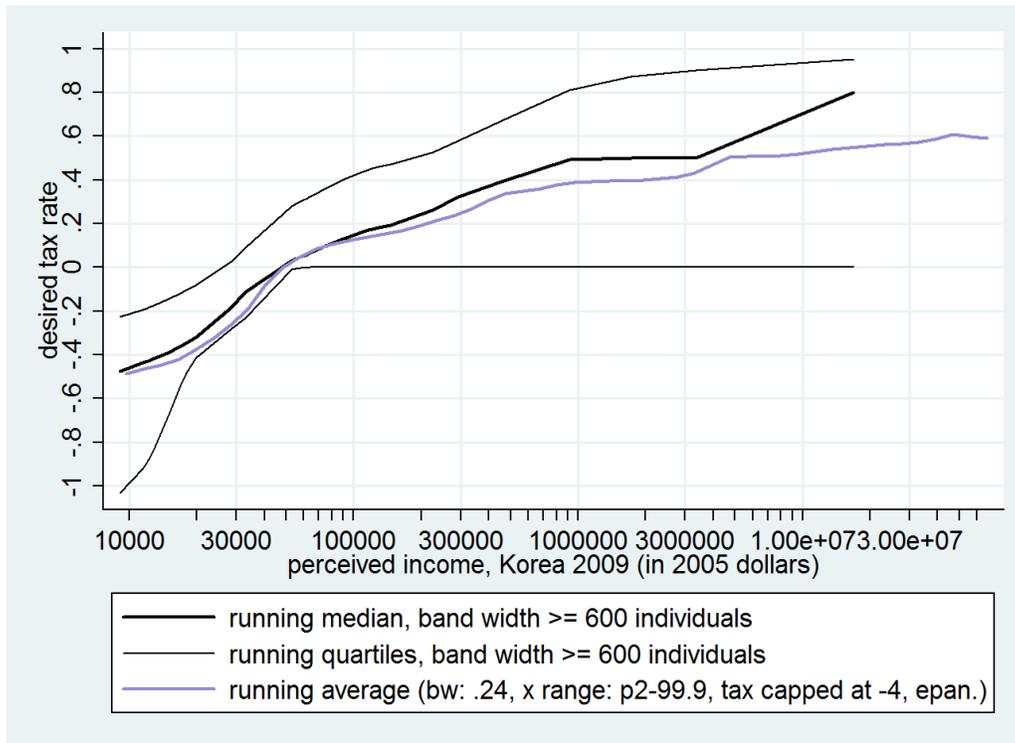
Table 36 – Summary of national statistics for Korea

| year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
2009	2.11	.50	.50	.50	13.33	.48	23643	.13	.12

Figure 151 – split party
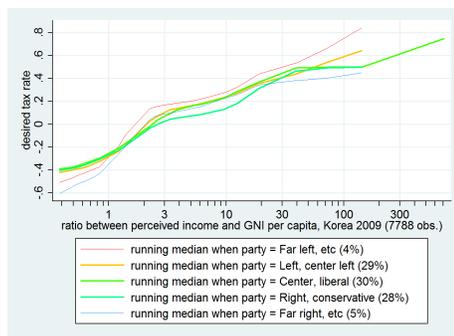
FIGURE 152 – raw data points, in LCU
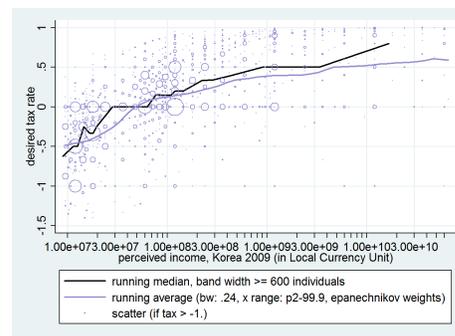
Figure 153 – percentiles
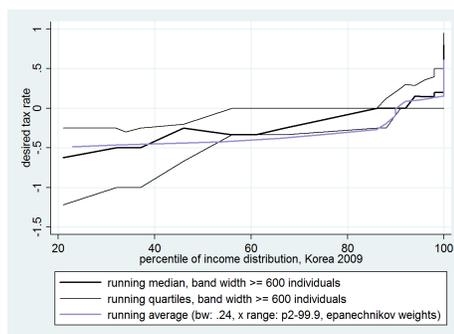
FIGURE 154 – desired vs. current
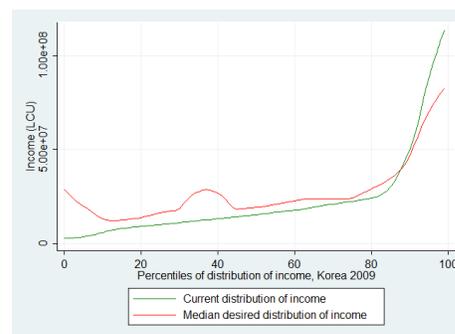
Figure 155 – LATVIA: desired *additional* tax
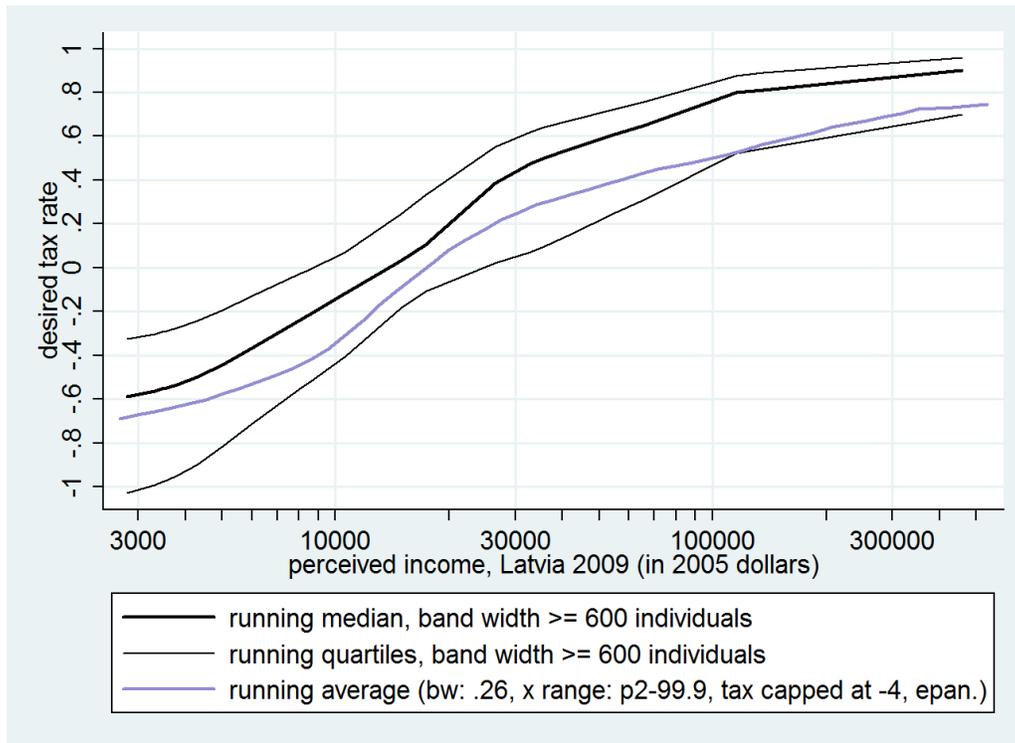
Table 37 – Summary of national statistics for Latvia

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1999	2.38	1.86	.50	.50	1.00	.33	7411	.24	.07
2009	2.89	.75	.66	.83	3.50	.35	13864	-.16	.22

Figure 156 – evolution
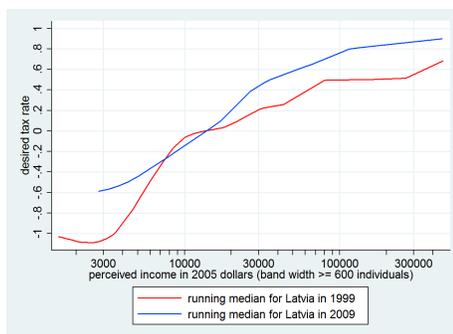
FIGURE 157 – raw data points, in LCU
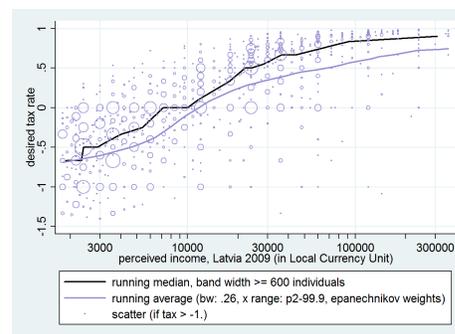
Figure 158 – percentiles
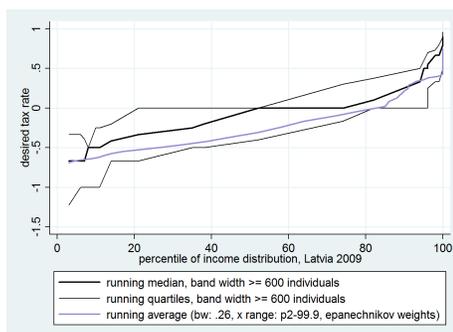
FIGURE 159 – distribution
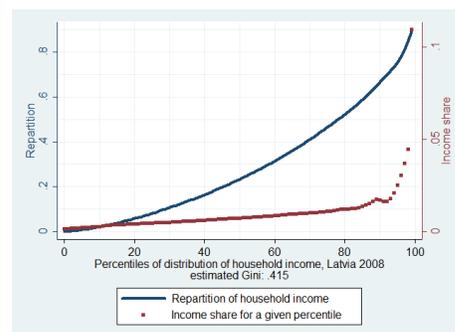
Figure 160 – NETHERLANDS (1987): desired *additional* tax
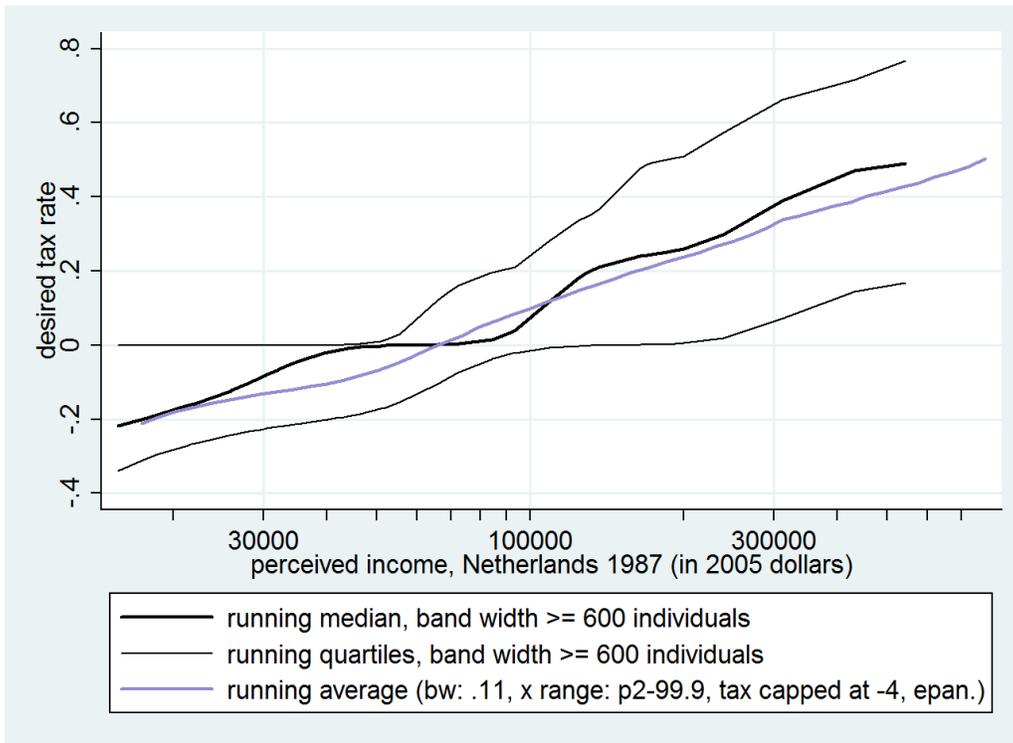
Table 38 – Summary of national statistics for Netherlands

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1987	1.49	.33	.33	.38	4.80	.33	29208	.06	.02

Figure 161 – split party
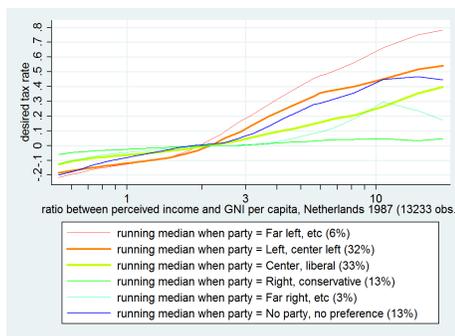
FIGURE 162 – raw data points, in LCU
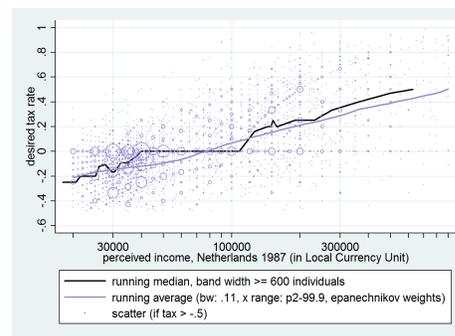
Figure 163 – percentiles
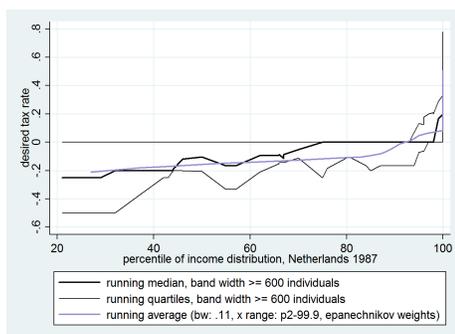
FIGURE 164 – distribution
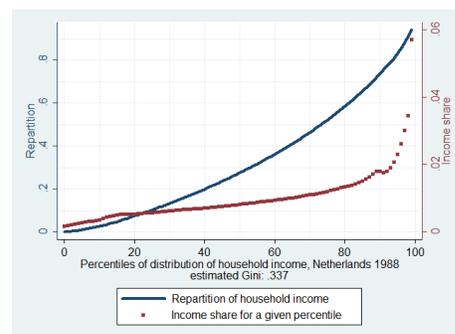
Figure 165 – NEW ZEALAND: desired *additional* tax
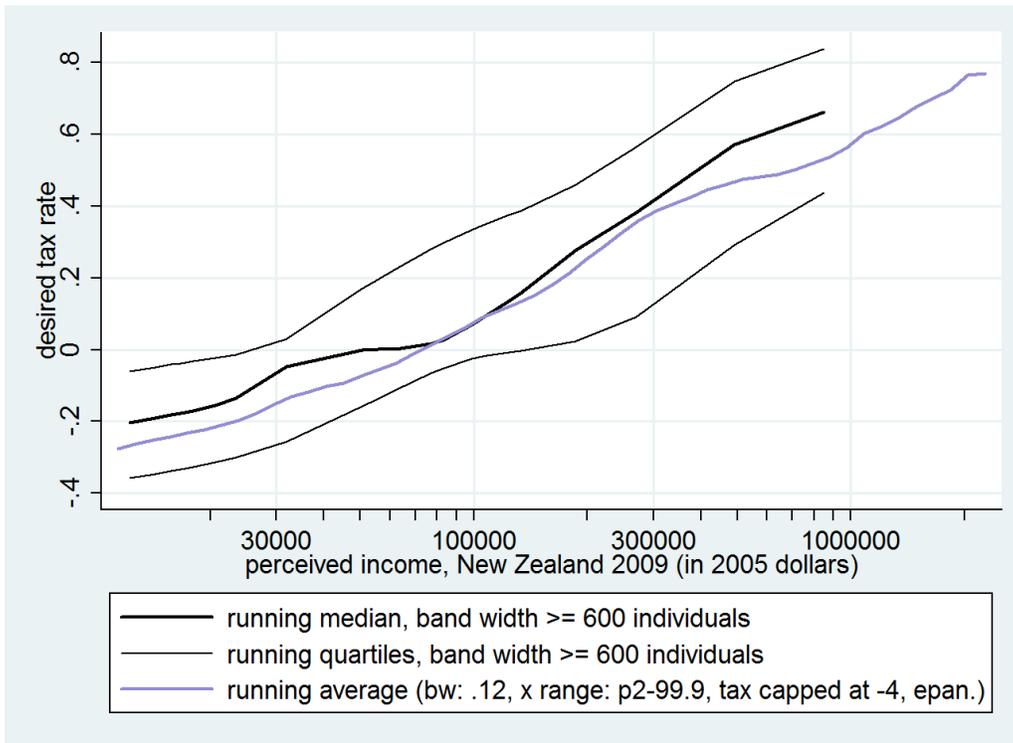
Table 39 – Summary of national statistics for New Zealand

| year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1992	1.66	.39	.47	.50	5.00	.46	18826	.12	.06
1999	1.75	.36	.50	.50	6.00	.45	22018	.10	.06
2009	1.61	.33	.40	.57	6.00	.28	24443		

Figure 166 – evolution
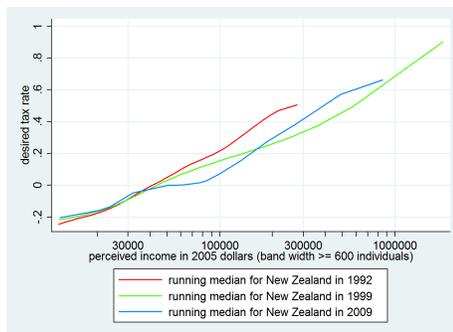
Figure 167 – raw data points, in LCU
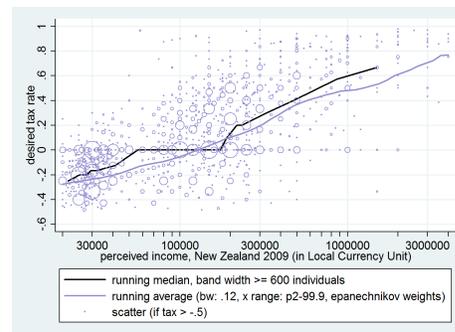
Figure 168 – percentiles (1999)
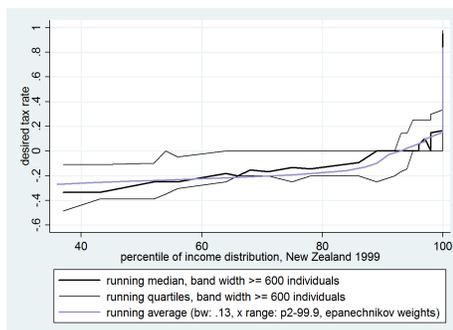

Figure 169 – desired vs. current (1999)
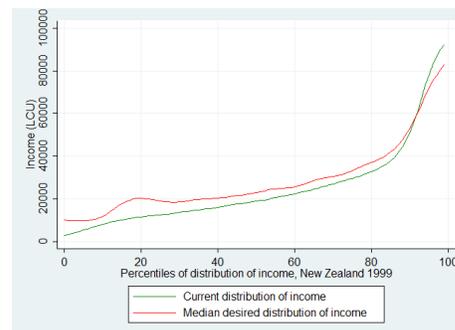
Figure 170 – NORWAY: desired *additional* tax
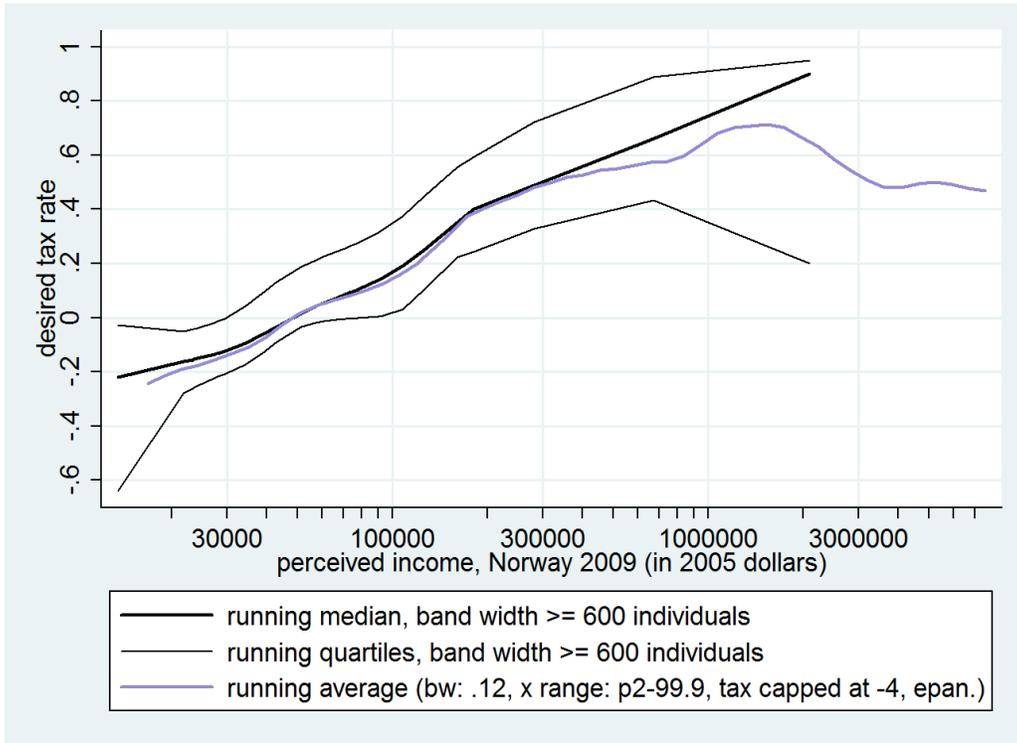
Table 40 – Summary of national statistics for Norway

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1992	1.41	.36	.40	.38	2.96	.27	26424	.07	.04
1999	1.29	.33	.33	.25	3.20	.30	33251	.04	.04
2009	1.50	.25	.43	.66	3.20	.26	47226	-.08	.11

Figure 171 – evolution
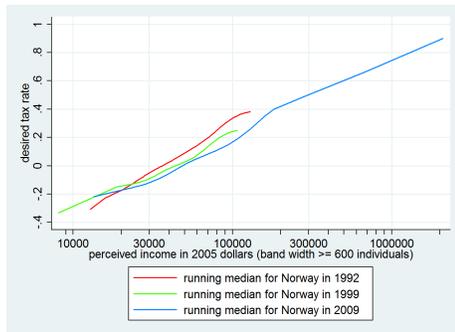


FIGURE 172 – raw data points, in LCU
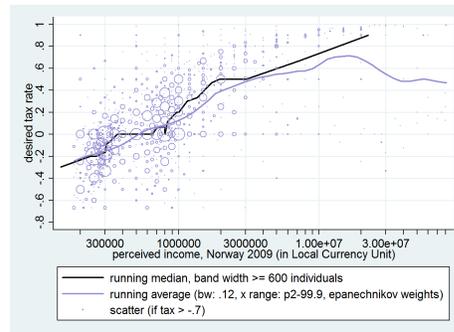
Figure 173 – percentiles
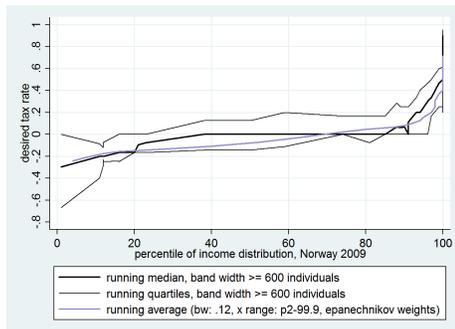
FIGURE 174 – desired vs. current
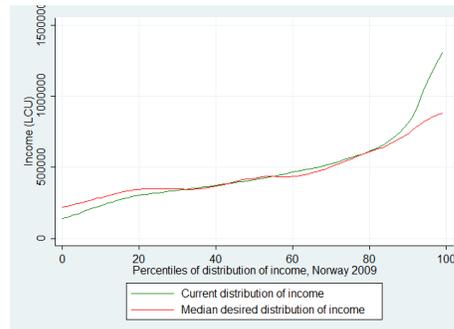
Figure 175 – PHILIPPINES: desired *additional* tax
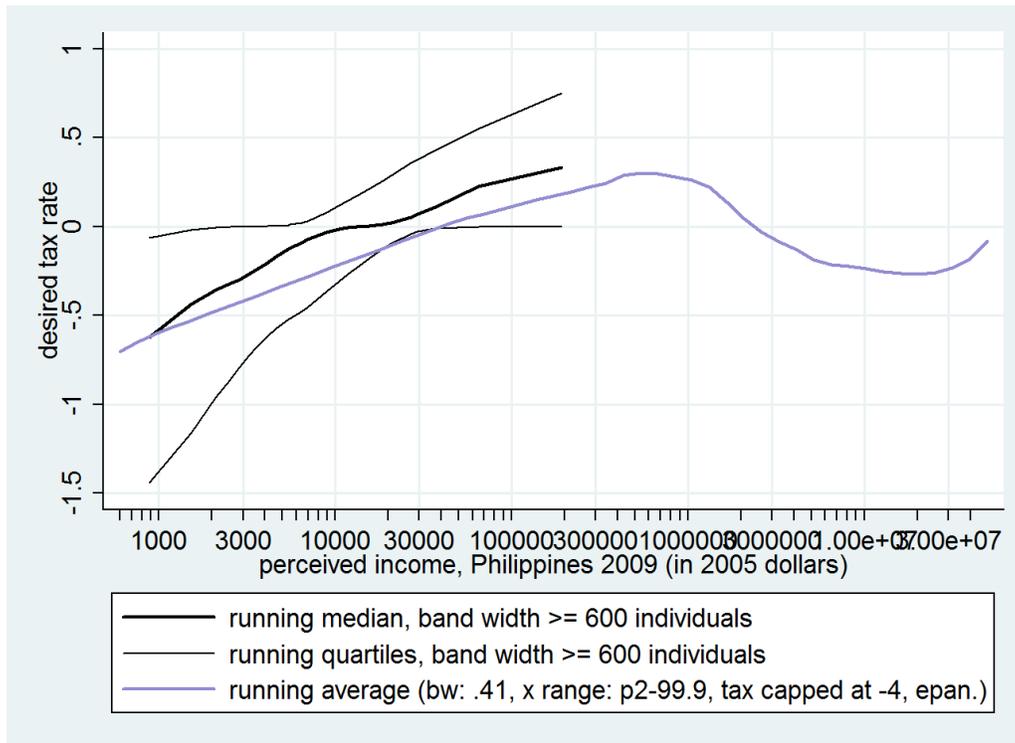
Table 41 – Summary of national statistics for Philippines

year	median	contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1992	1.04		.70	.00	.00	12.00	.44	2729	.22	.00
1999	1.20		1.00	.00	.00	12.50	.46	3806	.34	.01
2009	1.34		.60	.20	.38	5.71	.43	5808	.04	.08

Figure 176 – evolution
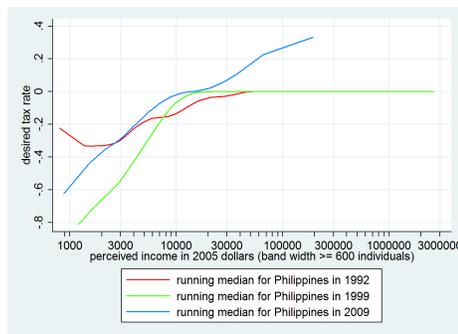
FIGURE 177 – raw data points, in LCU
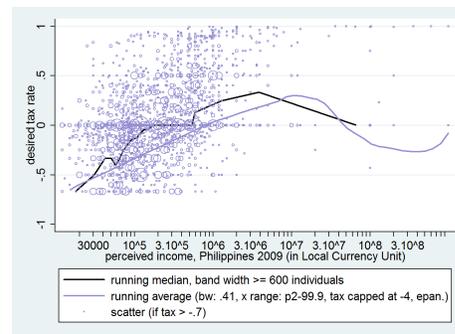

Figure 178 – percentiles
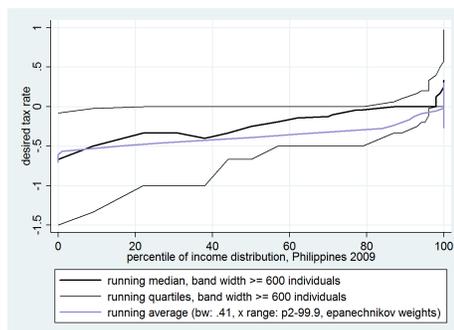
FIGURE 179 – distribution
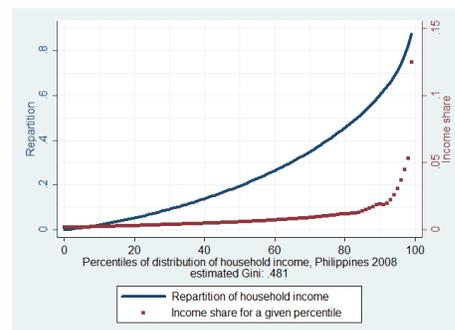
Figure 180 – POLAND: desired *additional* tax
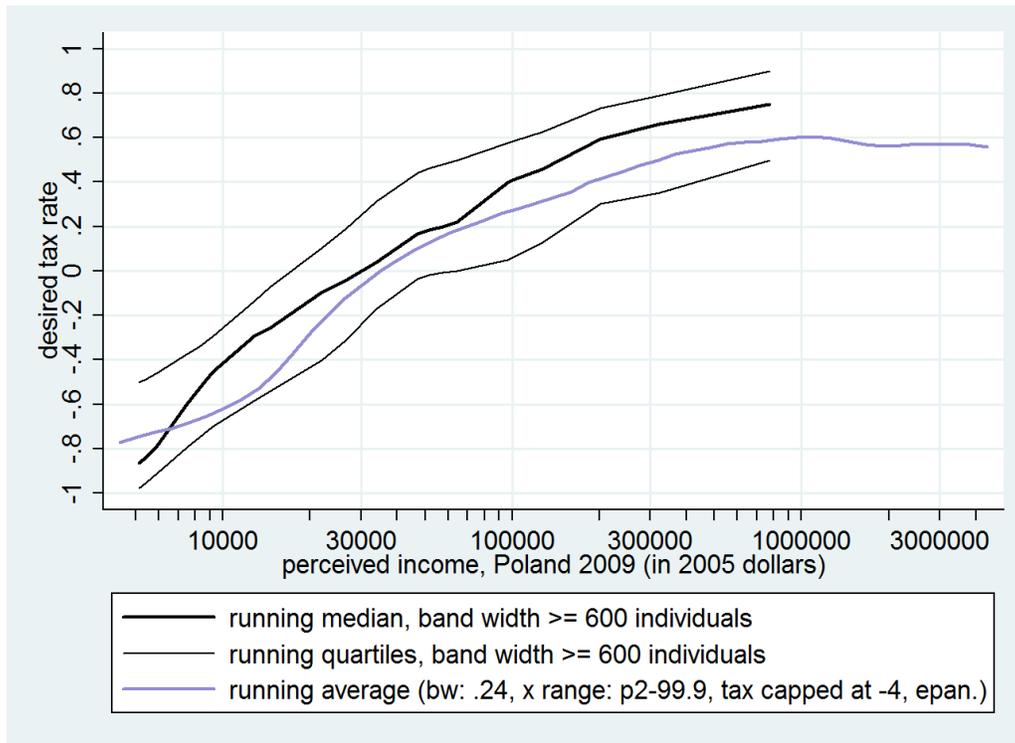
Table 42 – Summary of national statistics for Poland

| year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1987	1.32	1.00	.25	.20	3.50	.26	17176	.00	.00
1992	1.90	1.80	.33	.25	6.00	.27	7336	.46	.01
1999	2.18	1.14	.50	.70	1.00	.33	10465	.24	.07
2010	2.53	.88	.50	.70	6.00	.33	16804	.15	.08

Figure 181 – evolution
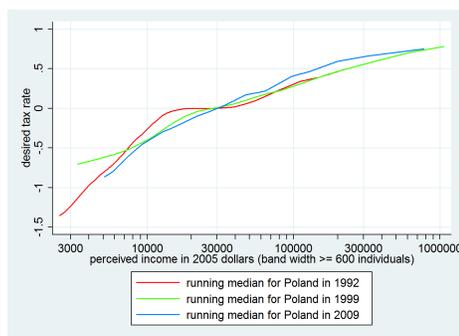

FIGURE 182 – raw data points, in LCU
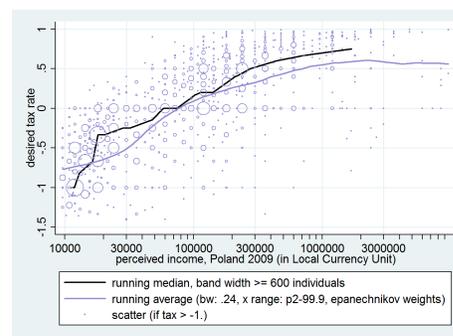

Figure 183 – percentiles
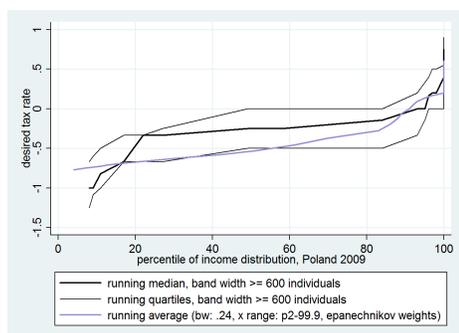
FIGURE 184 – distribution
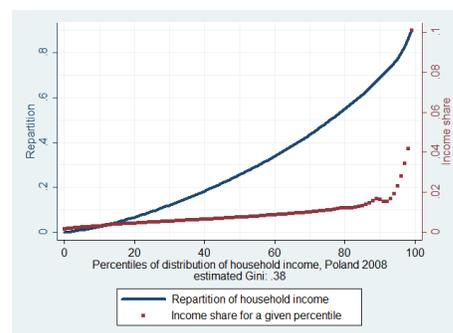
Figure 185 – PORTUGAL: desired *additional* tax
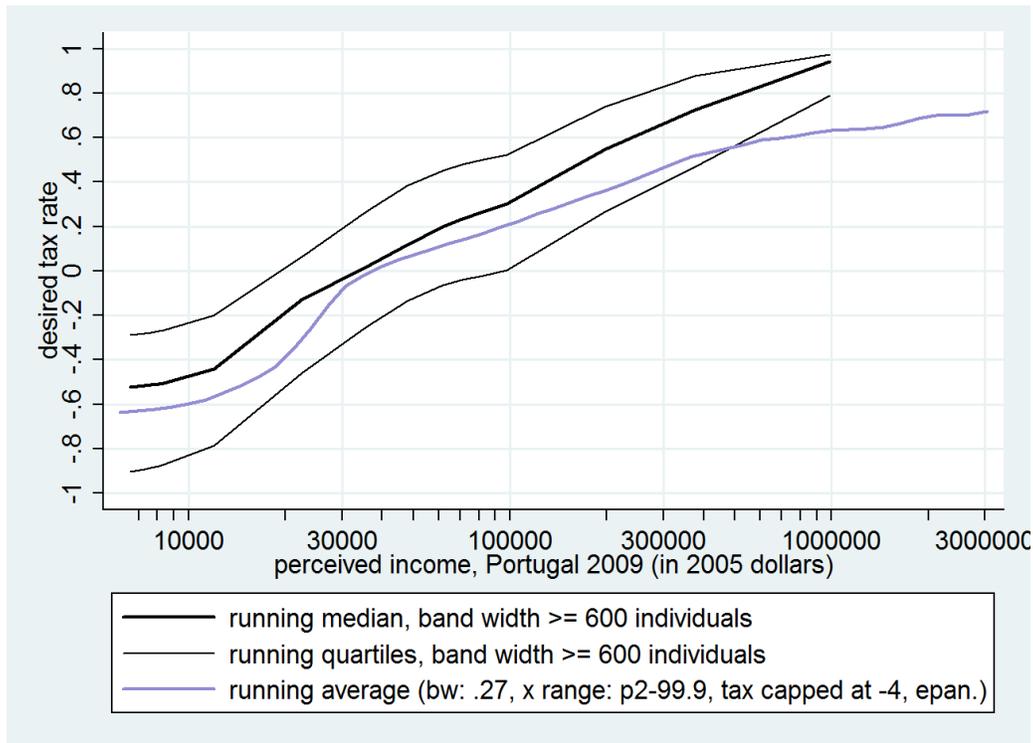
Table 43 – Summary of national statistics for Portugal

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1999	1.94	.71	.50	.50	6.67	.44	18439	.02	.10
2009	2.63	.67	.40	.81	5.56	.35	20358	.08	.12

Figure 186 – evolution
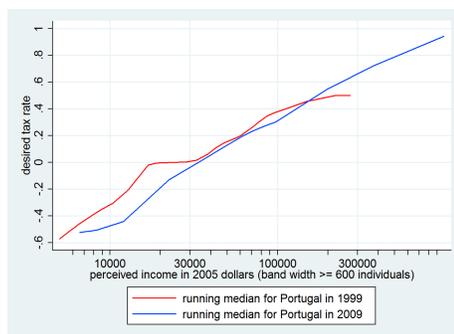
FIGURE 187 – raw data points, in LCU
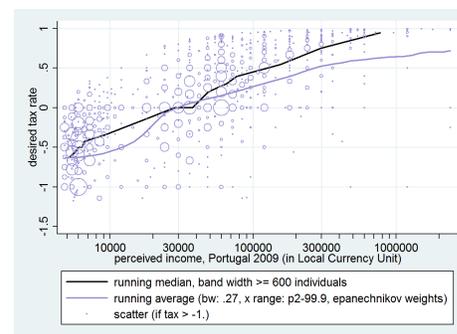
Figure 188 – percentiles
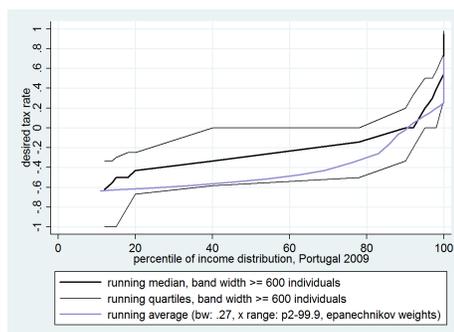
FIGURE 189 – desired vs. current

Figure 190 – RUSSIA: desired *additional* tax
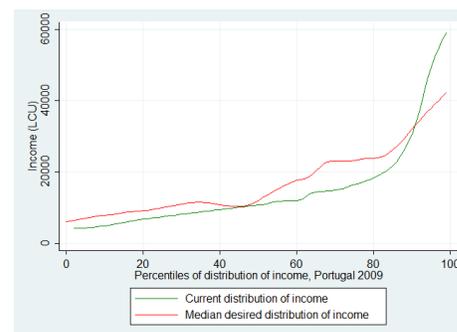
Figure 190 – RUSSIA: desired *additional* tax
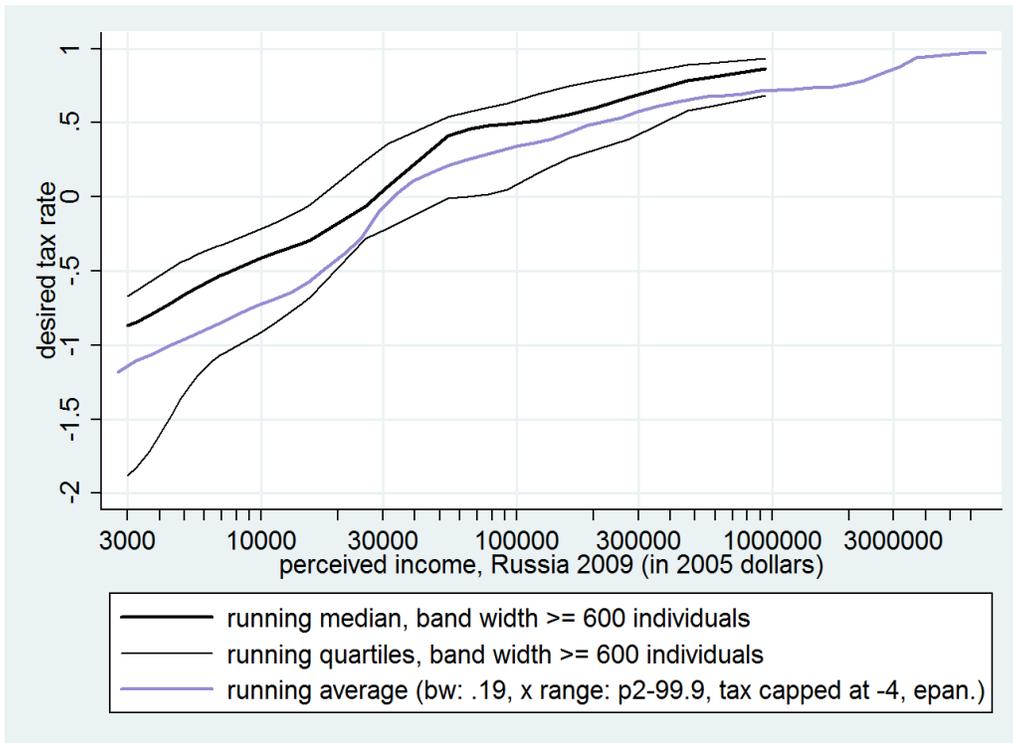
Table 44 – Summary of national statistics for Russia

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1992	1.92	3.37	.43	.38	8.71	.48	9736	4.45	.00
1999	6.12	3.50	.58	.87	1.00	.37	5377	.24	.10
2009	3.54	1.08	.60	.80	6.67	.40	15026	.07	.16

Figure 191 – evolution
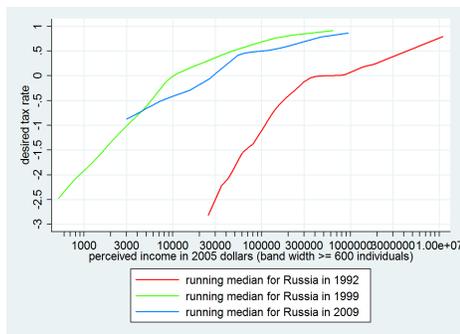
FIGURE 192 – raw data points, in LCU
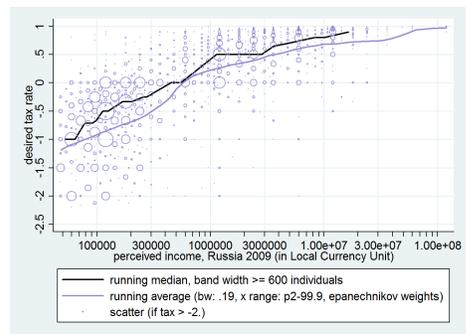

Figure 193 – percentiles
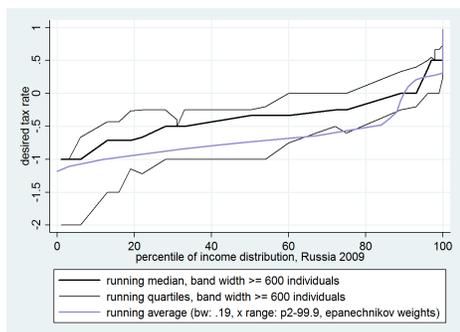


FIGURE 194 – distribution
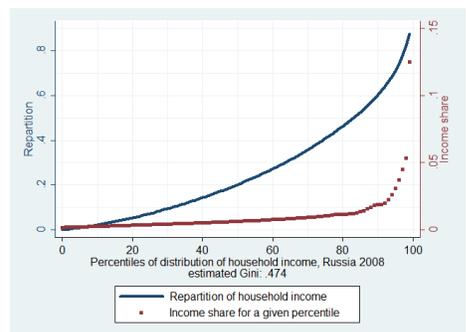
Figure 195 – SLOVAKIA: desired *additional* tax
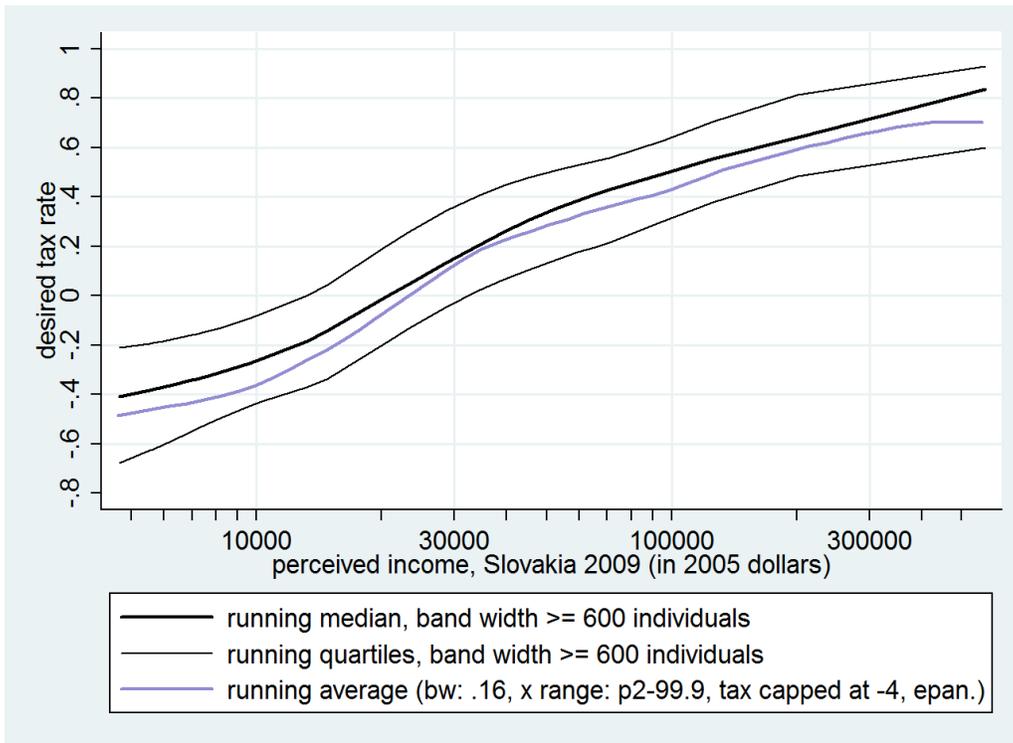
Table 45 – Summary of national statistics for Slovakia

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1992	1.78	1.00	.33	.40	5.00	.20	11930	.04	.05
2001	2.48	1.40	.53	.42	9.38	.28	13345	.14	.10
2009	2.06	.50	.50	.67	5.00	.26	18264	-.03	.10

Figure 196 – evolution
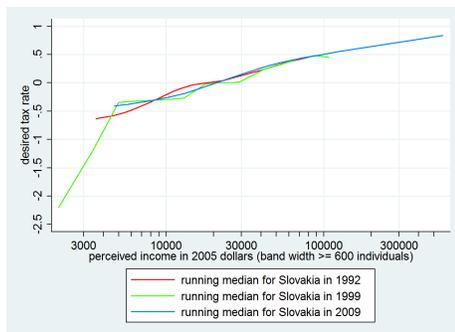
Figure 197 – raw data points, in LCU
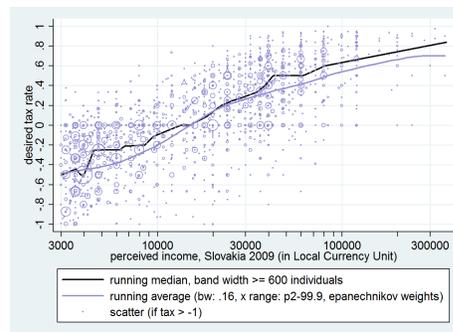
Figure 198 – percentiles
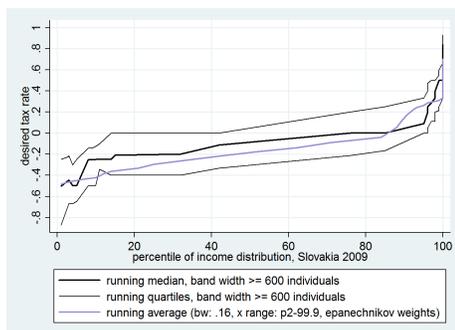
Figure 199 – distribution
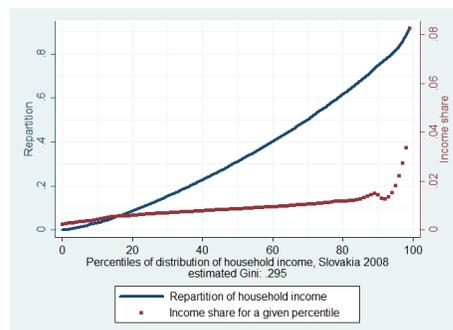
Figure 200 – SLOVENIA: desired *additional* tax
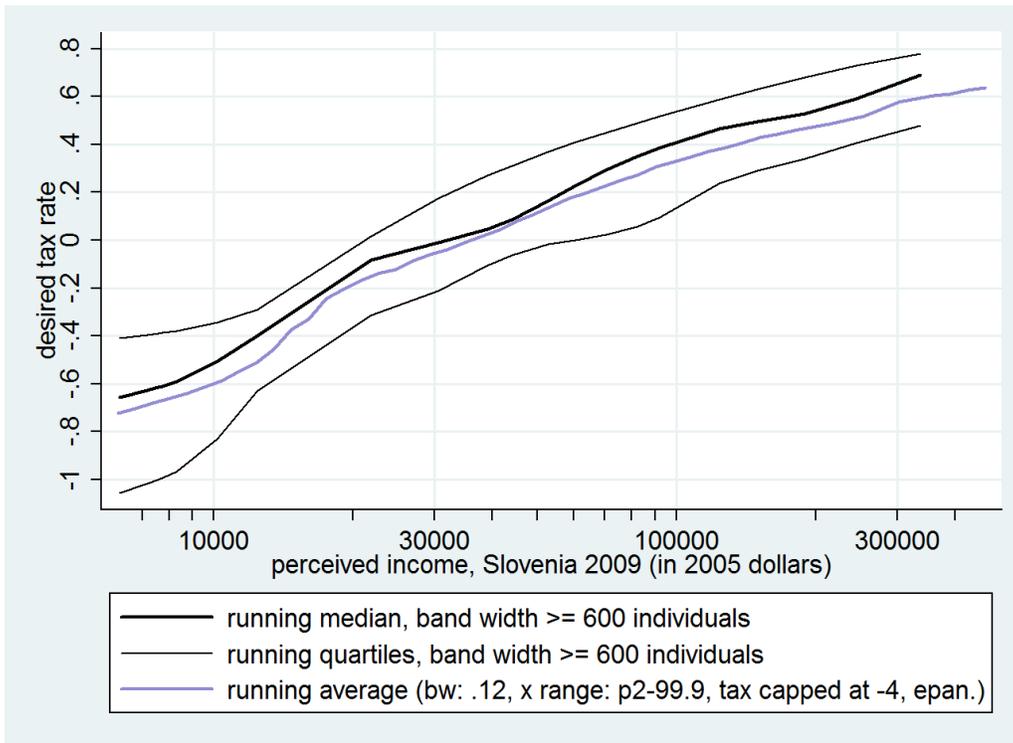
Table 46 – Summary of national statistics for Slovenia

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1992	2.14	1.00	.38	.47	5.00	.29	21767	-.19	.22
1998	2.14	.75	.50	.43	7.00	.26	20515	.02	.06
2009	2.71	.67	.50	.59	5.56	.25	22594	.03	.08

Figure 201 – evolution
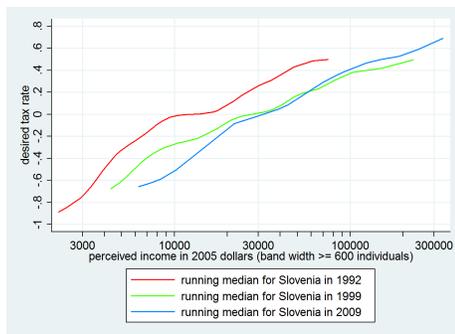
FIGURE 202 – raw data points, in LCU
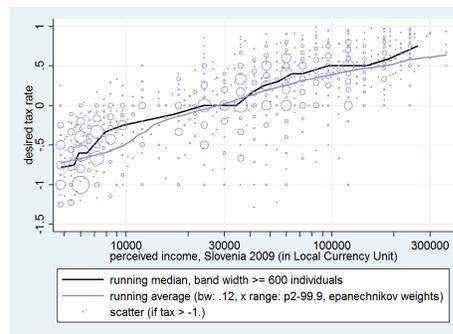
Figure 203 – percentiles
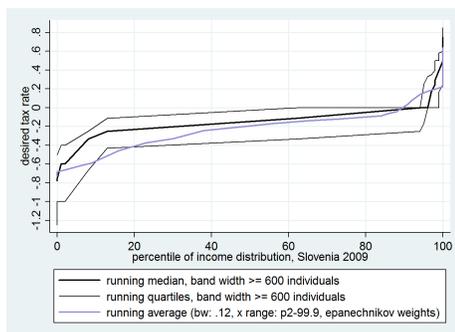
FIGURE 204 – distribution
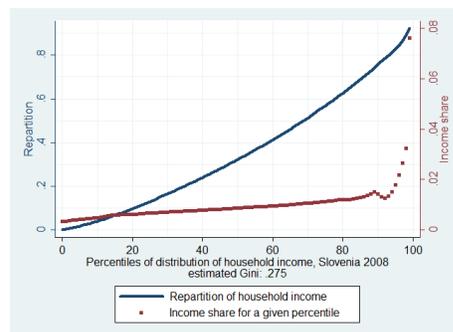
Figure 205 – SOUTH AFRICA: desired *additional* tax
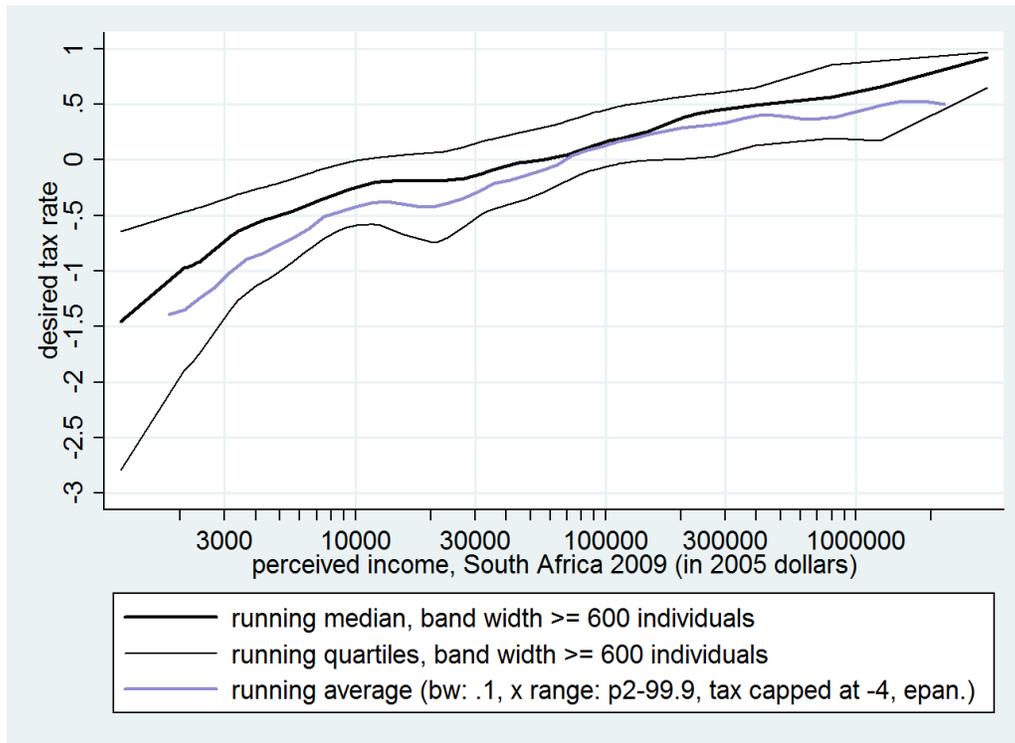
Table 47 – Summary of national statistics for South Africa

| year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
2009	1.98	1.00	.40	.50	16.00	.63	9185	.14	.08

Figure 206 – split income
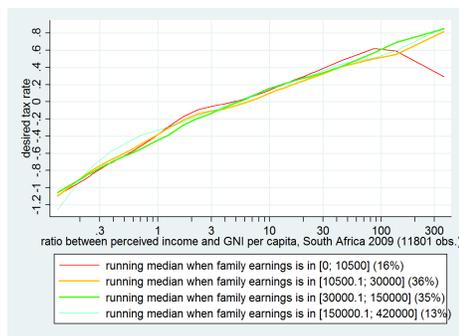

FIGURE 207 – raw data points, in LCU
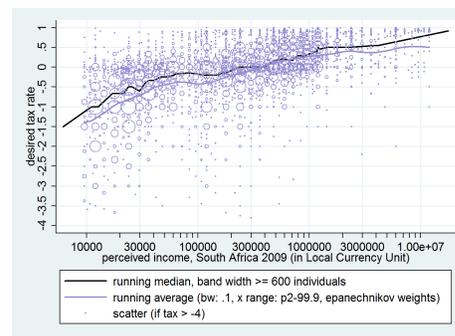
Figure 208 – percentiles
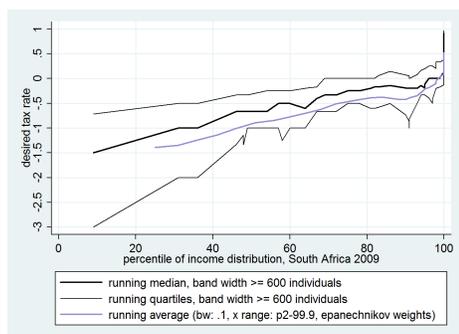
FIGURE 209 – desired vs. current
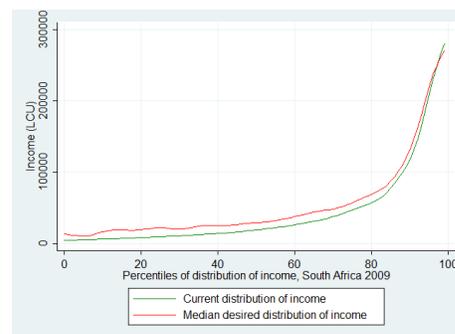
Figure 210 – SPAIN: desired *additional* tax
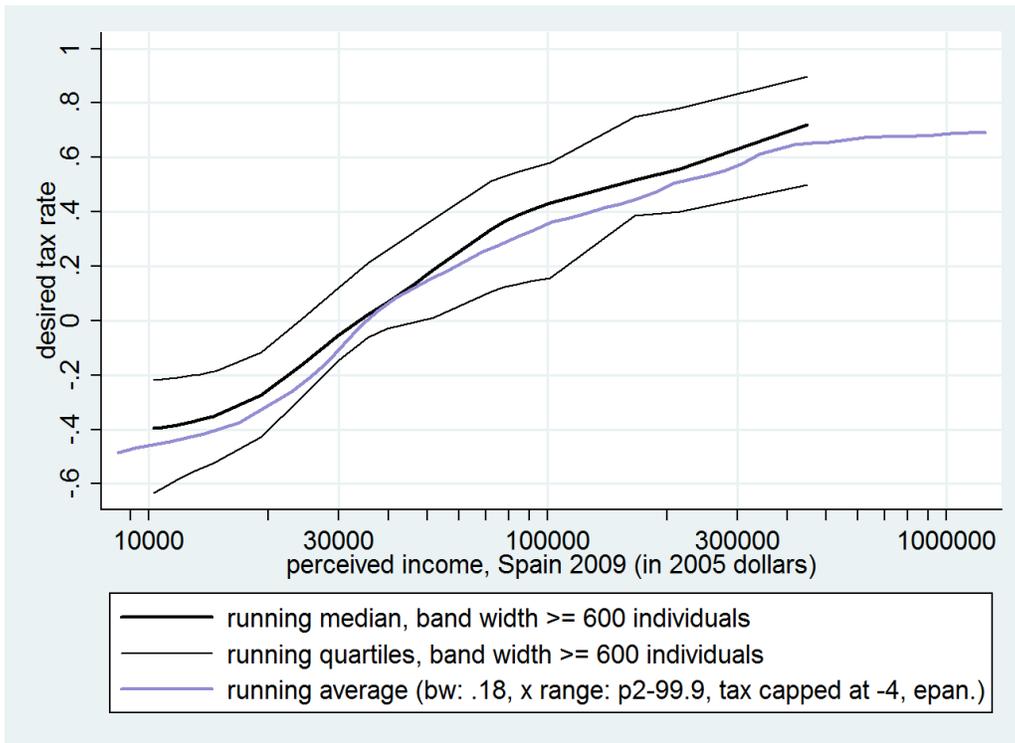
Table 48 – Summary of national statistics for Spain

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1999	1.73	.50	.33	.38	3.33	.40	22696	.05	.07
2009	2.28	.50	.50	.67	3.33	.35	26557	-.04	.13

Figure 211 – evolution
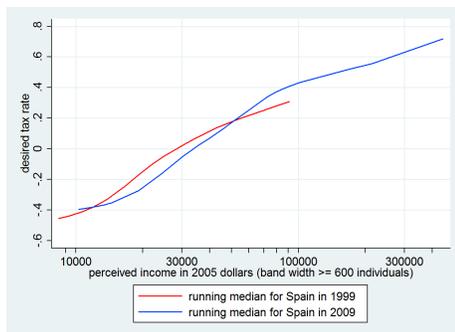
Figure 212 – raw data points, in LCU
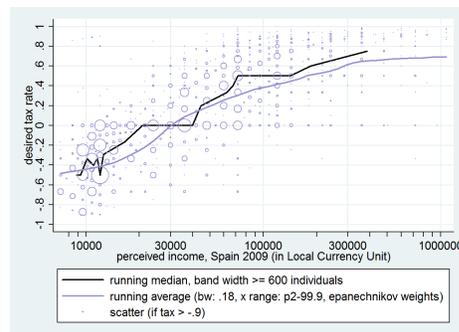

Figure 213 – percentiles
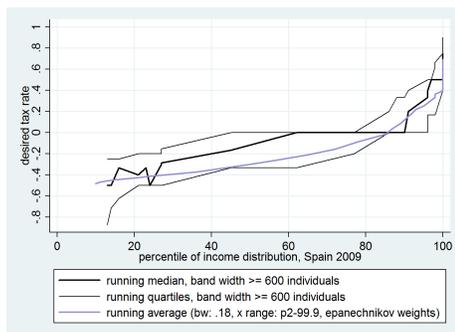


Figure 214 – desired vs. current
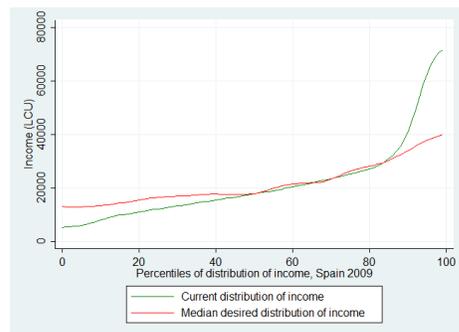
Figure 215 – SWEDEN: desired *additional* tax
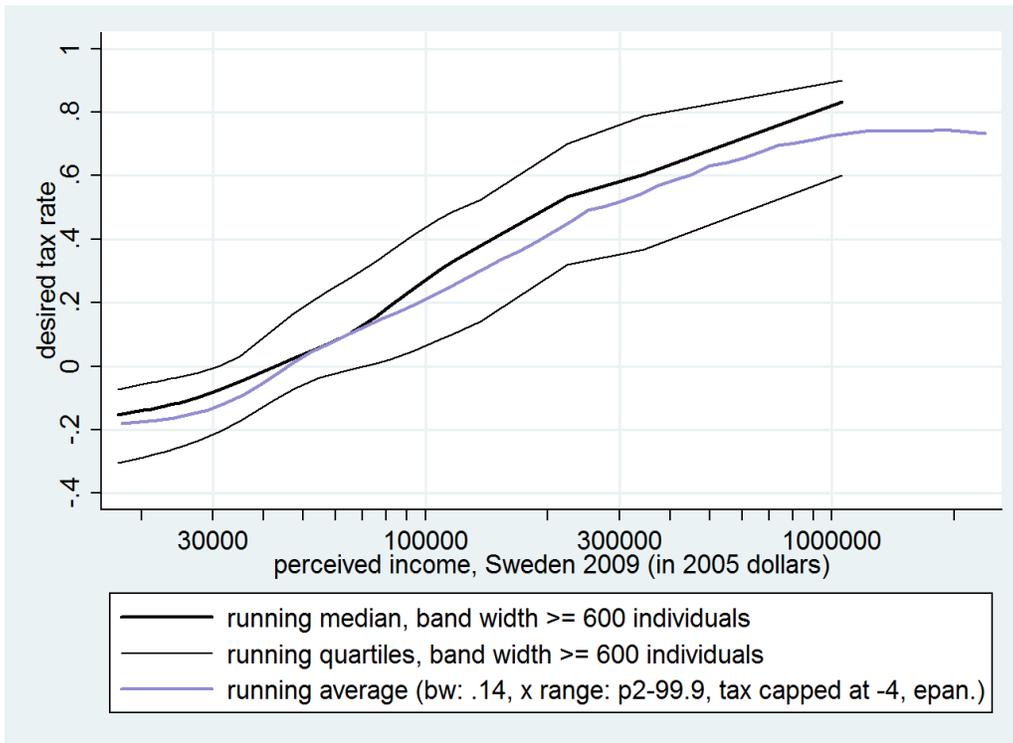
Table 49 – Summary of national statistics for Sweden

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1991	1.48	.36	.33	.38	2.50	.29	27435	.02	.06
1999	1.55	.31	.43	.50	3.20	.31	29876	.01	.08
2009	1.69	.25	.50	.70	3.00	.27	36053	-.38	.44

Figure 216 – evolution
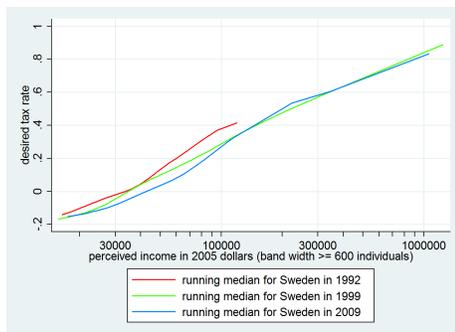
FIGURE 217 – raw data points, in LCU
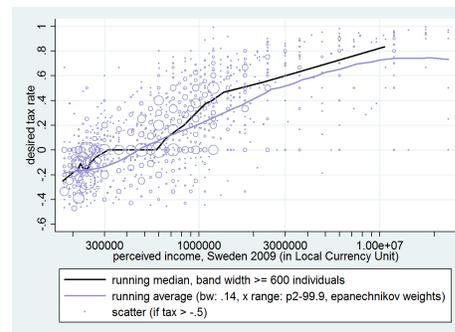
Figure 218 – percentiles
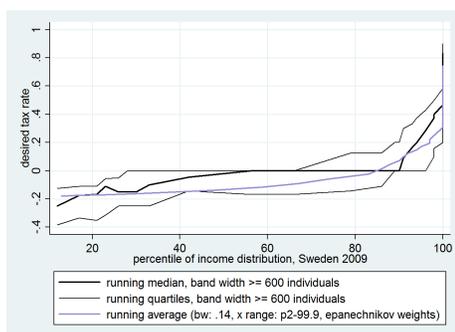


FIGURE 219 – desired vs. current
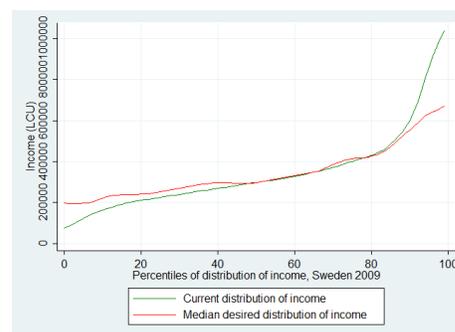
Figure 220 – SWITZERLAND: desired *additional* tax
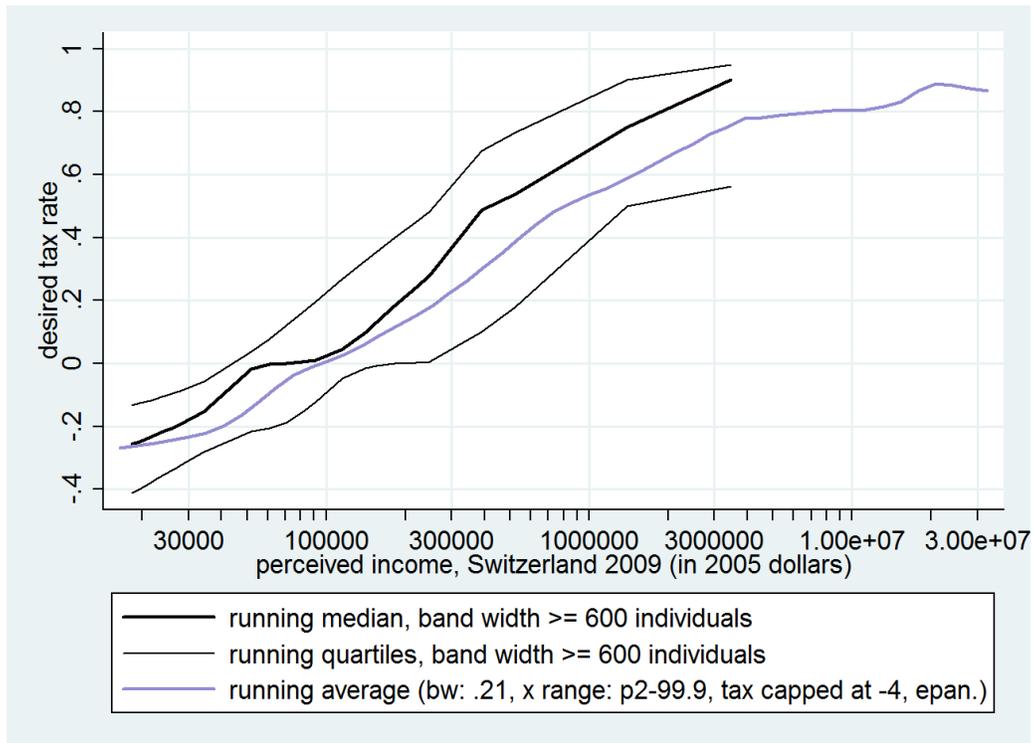

Table 50 – Summary of national statistics for Switzerland

| year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc
1987	1.49	.40	.33	.33	5.00		38957
2009	1.87	.33	.40	.75	5.56	.33	42285

Figure 221 – evolution
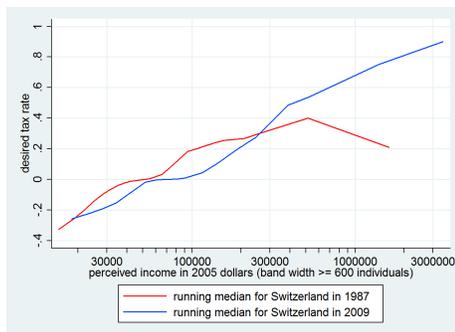
FIGURE 222 – raw data points, in LCU
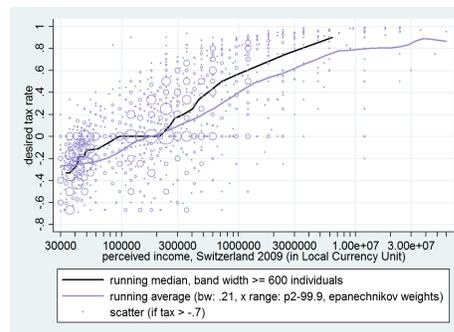

Figure 223 – split income
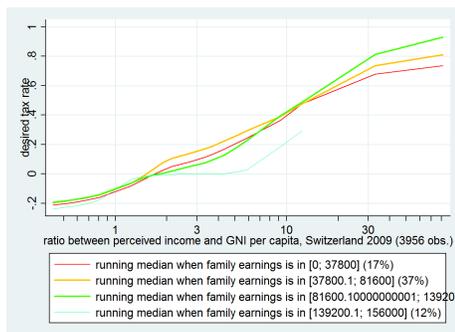
FIGURE 224 – split age
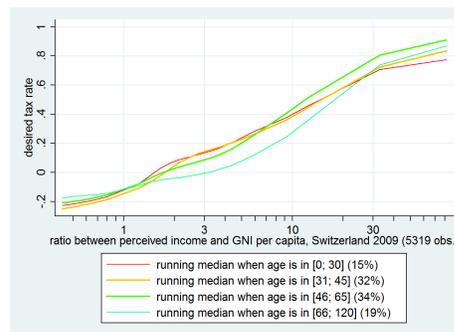
Figure 225 – TAIWAN: desired *additional* tax

Table 51 – Summary of national statistics for Taiwan

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc
2009	1.38	.25	.33	.00	17.86		15987

Figure 226 – split degree
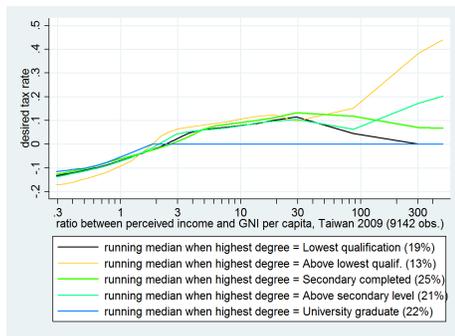
Figure 227 – raw data points, in LCU
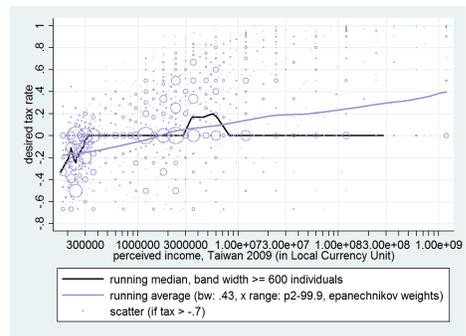
Figure 228 – split income
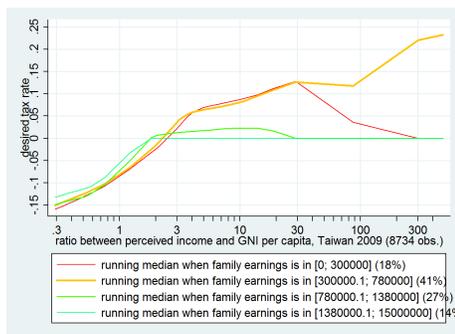
Figure 229 – split age
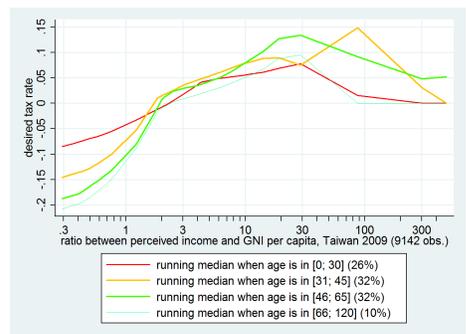
Figure 230 – TURKEY: desired *additional* tax
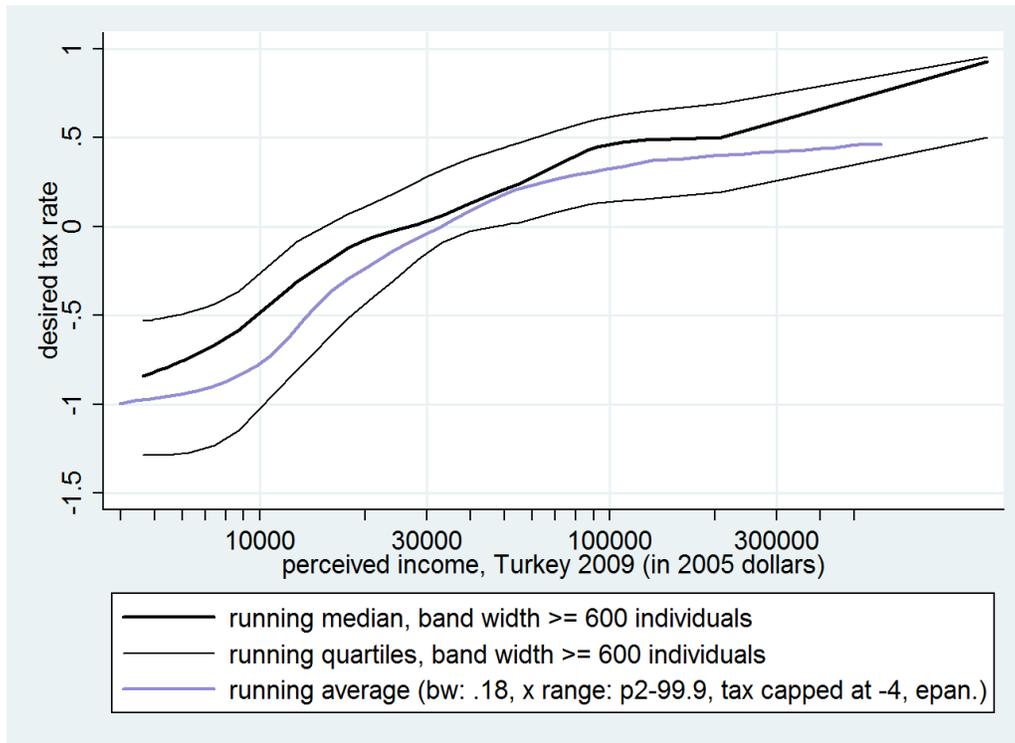
Table 52 – Summary of national statistics for Turkey

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
2009	2.61	1.00	.40	.50	5.00	.39	10931	.32	.10

Figure 231 – split income

FIGURE 232 – raw data points, in LCU
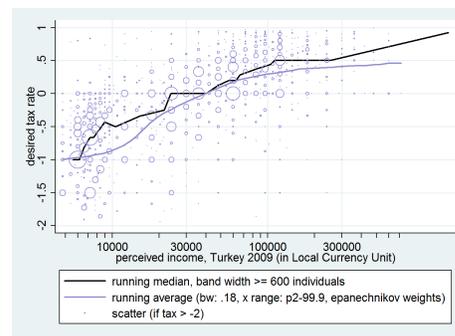
Figure 233 – percentiles
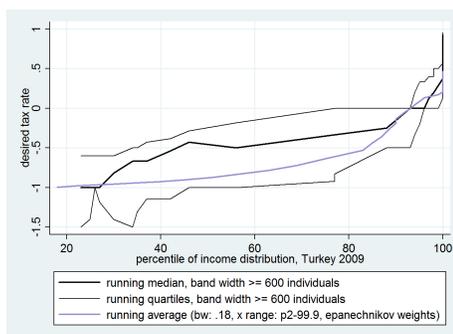

FIGURE 234 – distribution
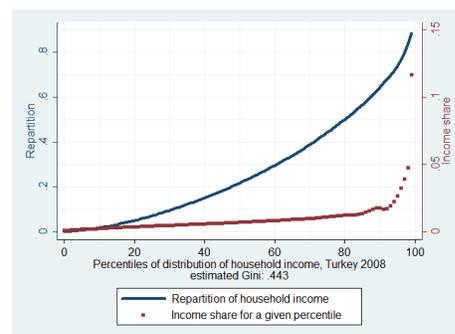
Figure 235 – UKRAINE: desired *additional* tax
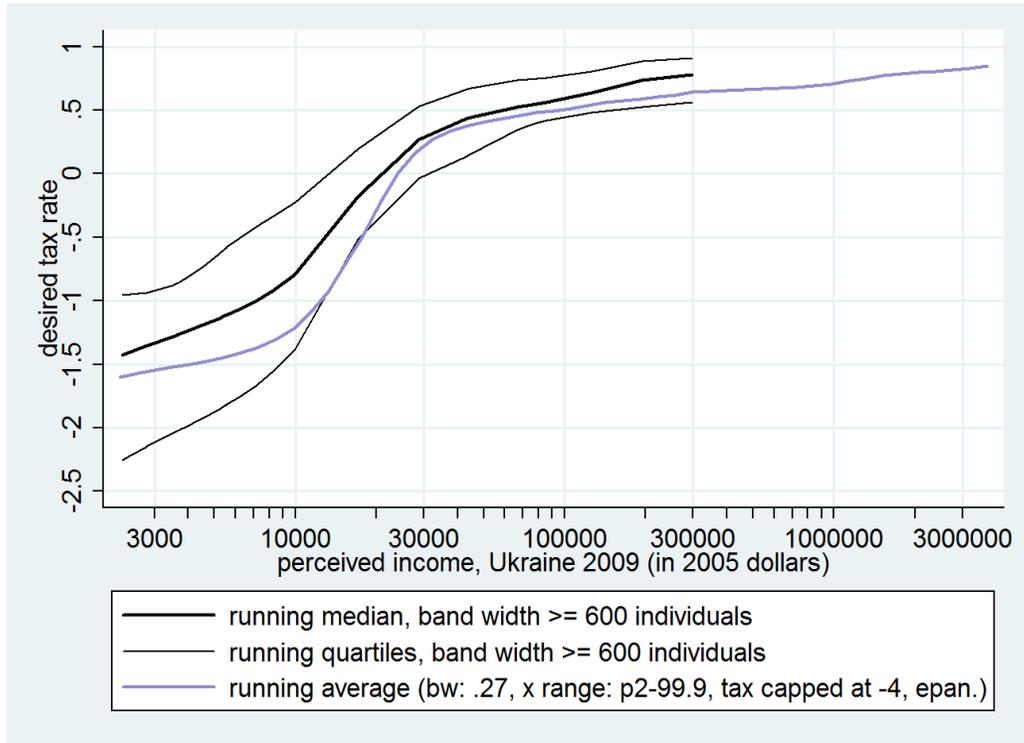
Table 53 – Summary of national statistics for Ukraine

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
2009	4.24	1.86	.57	.80	4.00	.25	6013	.84	.08

Figure 236 – split party
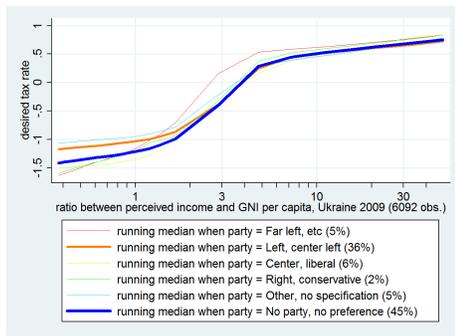
FIGURE 237 – raw data points, in LCU
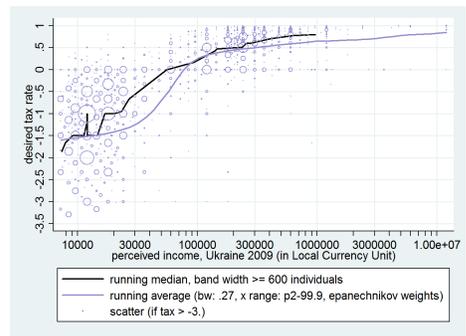
Figure 238 – percentiles
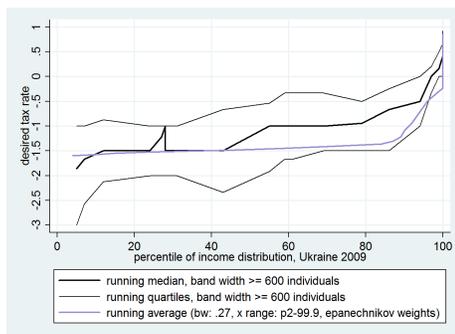
FIGURE 239 – distribution
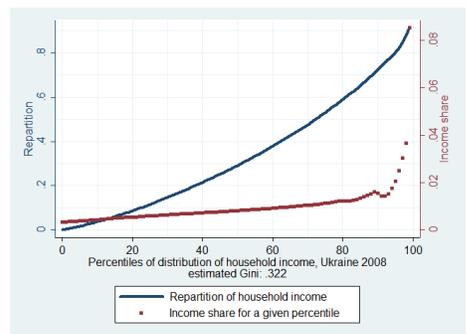
Figure 240 – The UNITED STATES: desired *additional* tax
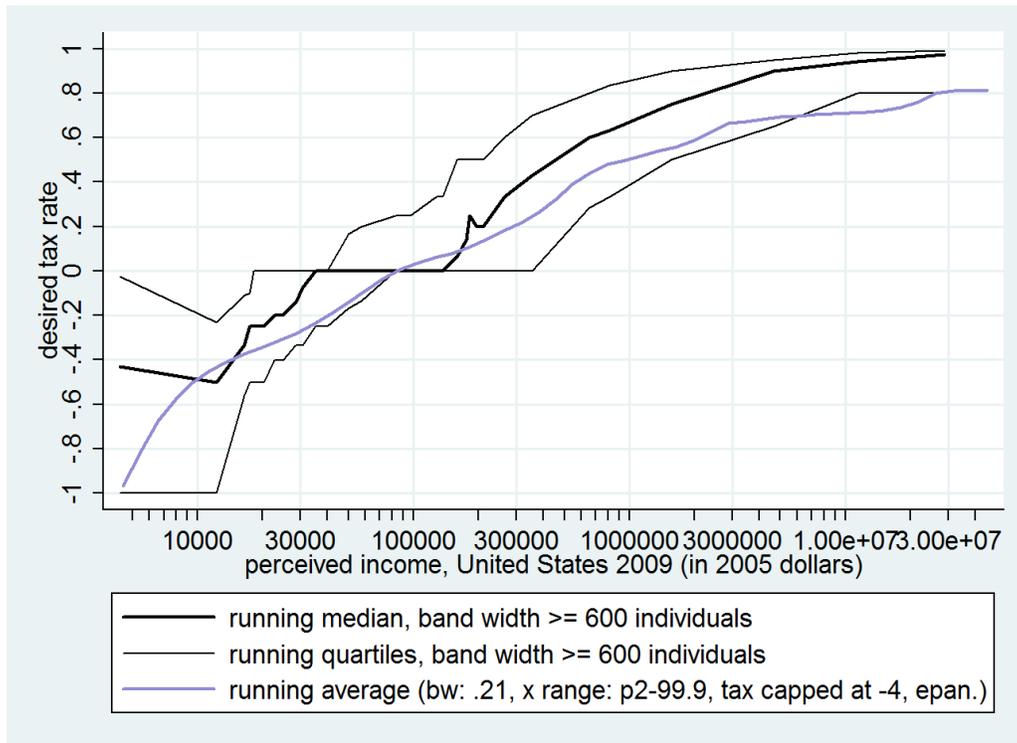
Table 54 – Summary of national statistics for the United States

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc	C	T
1987	1.58	.60	.40	.44	6.67	.38	34362	.03	.07
1992	1.90	.75	.50	.57	10.00	.39	35048	.04	.09
2000	1.69	.60	.45	.43	7.50	.41	41886	.03	.06
2009	2.57	.44	.66	.93	10.00	.41	43010	-.09	.15

Figure 241 – evolution
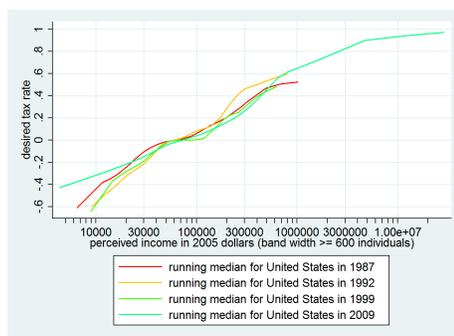
Figure 242 – raw data points, in LCU
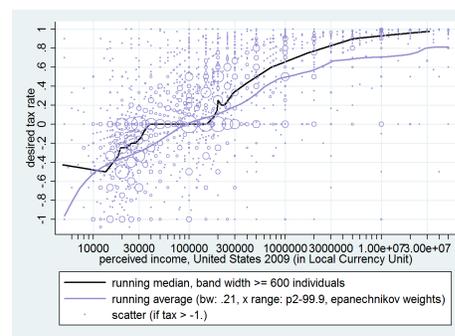
Figure 243 – percentiles
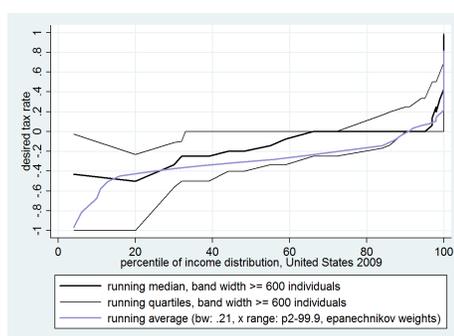
Figure 244 – desired vs. current
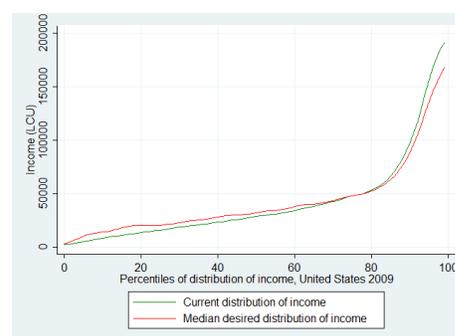
Figure 245 – VENEZUELA: desired *additional* tax
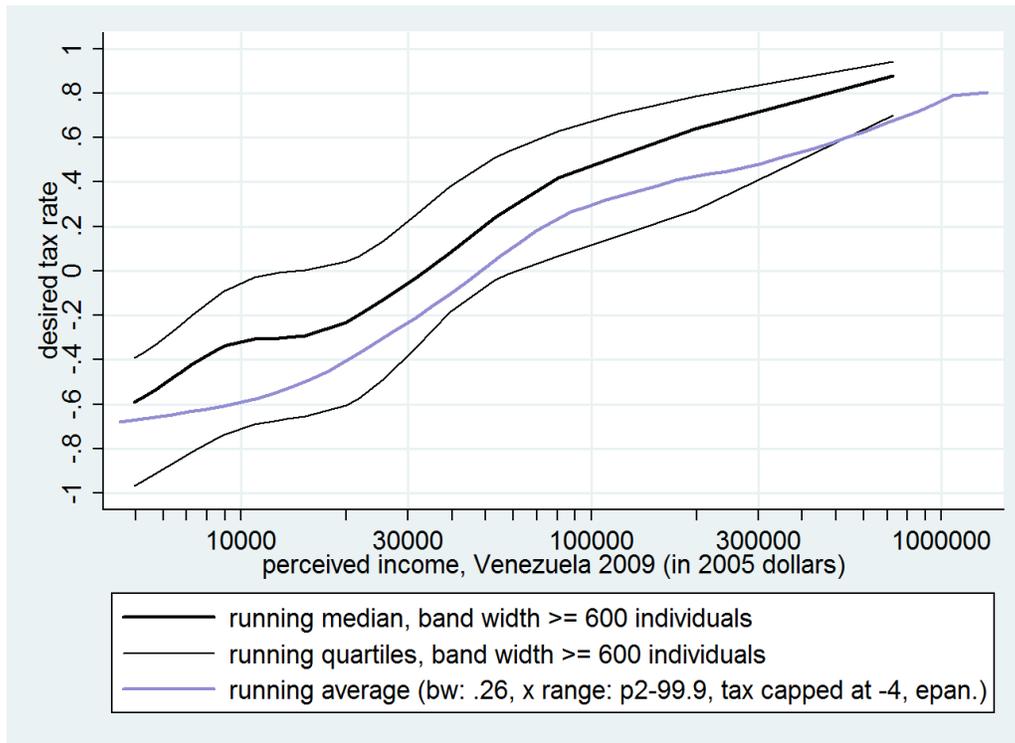
Table 55 – Summary of national statistics for Venezuela

year	median contraction	rise max	tax max	max tax	maximal gap	Gini	GNI pc
2010	1.96	1.00	.40	.66	4.00	.47	12959

Figure 246 – split degree
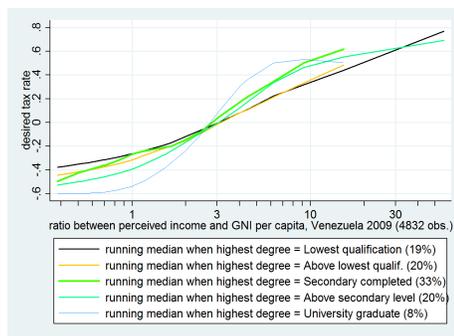
Figure 247 – raw data points, in LCU
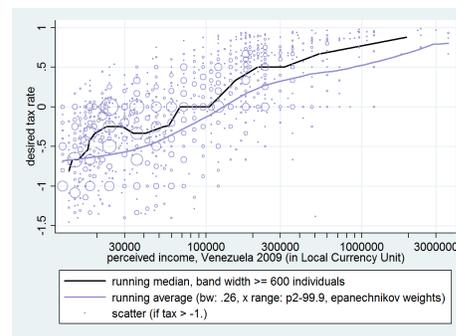
Figure 248 – split income
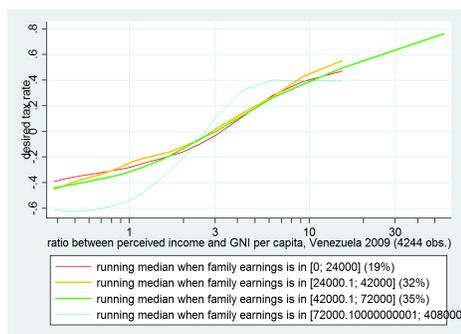
Figure 249 – split party
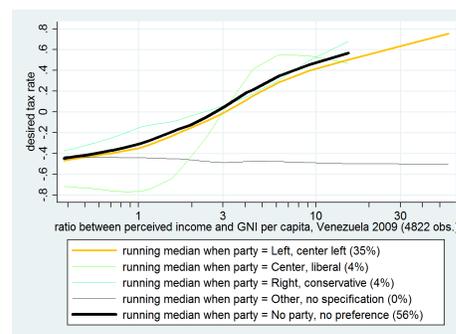
C Power analysis

In order to determine the sample size needed for my survey, I choose criteria that ought to be respected for a benchmark question, and then I check if this sample size gives satisfactory power and confidence intervals for other questions.

The benchmark question chosen is the most prominent of the survey: the approval of a custom reform of taxation. More precisely, the aim is to know whether a majority of the second half of the sample approves a reform whose parameters have been determined by the first half's respondents. As this mimics a referendum, one wants to know at a fair confidence level, say 5%, if the *true* approval rate is above 50% or not, with a Minimal Detectable Effect (*MDE*) of 5%. That is, null hypothesis that approval is below 50% is rejected at a 5% confidence level as long as realized approval rate is above 55%. Moreover, I impose a power of 95%, meaning that null hypothesis has to be rejected in at least 95% of cases when *true* approval rate is set to 55%. Formally, let $\mu_0 = 0.5$ be the threshold for the null hypothesis $H_0 : \mu_0 < 1/2$. Let $\mu_1 = \mu_0 + MDE = 0.55$ be the *true* value of the estimated parameter. Approximating the binomial law for the mean of the sample by a normal law, one gets:

$$\mathbb{P}\left(\frac{\hat{\mu} - \mu_0}{\sigma_{\hat{\mu}}} < t_\alpha\right) = 1 - \alpha = 0.95$$

$$\mathbb{P}\left(\frac{\hat{\mu} - \mu_0}{\sigma_{\hat{\mu}}} > t_\alpha \mid \mu = \mu_1\right) = \kappa = 0.95$$

$$MDE = \mu_1 - \mu_0 = (t_\alpha + t_{1-\kappa}) \cdot \sigma_{\hat{\mu}}$$

Using the formula for the standard deviation of a binomial law, one obtains the sample size:

$$\sigma_{\hat{\mu}} = \sqrt{\frac{\mu_1 \cdot (1 - \mu_1)}{n}}$$

$$n = \left(\frac{t_\alpha + t_{1-\kappa}}{MDE}\right)^2 \cdot \mu_1 \cdot (1 - \mu_1) = 1083$$

As this n corresponds to the second half of the sample, one has to double it to find the adequate sample size. Besides, a power of 95% is quite demanding, so one could be satisfied with a smaller smaller sample size. For example, $n = 1000$ instead of 1083 gives a power of 94% for the same MDE[70], or equivalently, a MDE of 4% for a power of 80%, which is largely enough.

Now, let us check that a sample size of $N = 2000$ is satisfactory for other questions of the survey. For other yes/no questions, the power is at least equal to the power calculated for a mean of .5: .99, hence it is more than enough. Besides, several questions ask respondents to choose an amount, whether it be for desired basic income, inheritance tax rate or transfer from rich to poor countries. Table 56 report plausible estimates for confidence intervals of these questions: the overall conclusion is that a sample size of 2000 is enough[71].

---

[70]*cf.* http://stat.ubc.ca/∼rollin/stats/ssize/b1.html for quick computations.
[71]This website is used for computations: http://www.sample-size.net/confidence-interval-mean/

Table 56 – Estimates of confidence intervals for some questions of the survey

question	n	mean	standard deviation	95% confidence interval
international transfer	2000	3	5	[2.78; 3.22]
international transfer	2000	3	10	[2.56; 3.44]
inheritance tax rate	500	30	20	[28.24; 31.76]
inheritance tax rate	500	50	50	[25.61; 34.39]
basic income	2000	600	300	[587; 613]
basic income	2000	600	500	[578; 621]
basic income	500	600	300	[574; 626]
basic income	500	600	500	[556; 644]
advantage	1000	75	20	[73.76; 76.24]

Finally, one wants to test whether *treatments* have an effect or not. As some questions are randomly drawn from 4 different versions, one needs to test whether groups of 500 persons each exhibit the same outcomes. Computations show that such sample sizes allow to detect with a power of 80% an effect of .18 standard deviation or more. In the case of the basic income, where the standard deviation is expected to be around half of the amount, like in the data from Piketty [2003], it would represent an effect of the *treatment* of 53€ per month. As for questions where the sample is divided in only two groups, the survey would have 80% power to detect an effect size of .125 standard deviation. Thus, a sample size of 2000 seems perfectly adequate.

However, for budgetary reasons, I might choose a smaller sample size. For example, a sample of 1200 respondents would still allow a power of 79% for a *MDE* of 5% in my benchmark question. It would detect a treatment effect size of .23 (resp. .16) standard deviation with a power of 80%, for questions divided in 4 (resp. 2) groups, while preserving satisfactory confidence intervals. Overall, such a sample size can thus be large enough for the purpose of the survey.

D Questionnaire

I present on the next page screen-shots of my questionnaire from *Qualtrics* website. Hereafter are some examples of distributions that would be presented in order to be graded by the respondent.

Figure 250 – Egalitarian distribution

Figure 251 – Custom distribution

Figure 252 – Current distribution

Caractéristiques sociologiques

Q39 Quel est votre revenu mensuel net (en euros) ? Sont inclus ici tous les revenus : salaires, pensions, allocations, revenus fonciers, etc.

Q40 À combien estimez-vous votre patrimoine (en euros) ? Sont incluses ici toutes vos possessions (logement, voiture, épargne, etc.) nettes de dette. Par exemple, si vous avez emprunté 200 000€ pour acheter votre maison, votre seul bien, et que vous avez remboursé la moitié de l'emprunt, votre patrimoine s'élève à 100 000€. Toute estimation, même très approximative, sera préférée à une absence de réponse.

Q41 Combien de personnes composent votre foyer ? Le foyer inclut : vous, les personnes qui vivent avec vous, et les personnes à votre charge.

Q42 Quelle est votre situation maritale ?
(Marié·e ou pacsé·e, En couple, Seul·e)

Q56 Quel est le revenu mensuel net de votre conjoint·e (en euros) ? Sont inclus ici tous les revenus : salaires, pensions, allocations, revenus fonciers, etc.

Q43 Quel est votre statut d'emploi ?
(fonctionnaire, CDI, CDD, intérimaire ou contrat précaire, au chômage, étudiant·e, retraité·e, aut...)

Q44 En moyenne, combien d'heures travaillez-vous par semaine, pour un travail rémunéré ? Si vous n'exercez pas d'activité rémunérée, remplissez 0.

Opinions

Q1 Votre revenu actuel vous satisfait-il ?
(Oui, Non)

Q2 Selon vous, compte tenu de vos compétences, de vos efforts et de votre quantité de travail, combien devriez-vous gagner ? (revenus nets par mois, en euros)

Q3 Adhérez-vous ou non à la déclaration suivante ? "Je veux que les humains s'assurent les conditions nécessaires au bien-être : l'accès à l'eau potable, à la nourriture, aux soins, à un environnement sain, à la sécurité, au logement, à une éducation, à l'information."
(Oui, Non, Oui, mais avec des exceptions)

Transferts internationaux

Randomized Questions

Q5 Selon vous, quelle part des revenus des pays riches devrait être transférée aux pays pauvres ?
(%)
()

Q6 De nombreuses voix s'élèvent en faveur d'un transfert de richesse des pays riches vers les pays pauvres. En effet, les pays riches sont les principaux responsables des émissions de gaz à effet de serre qui causent le dérèglement climatique, qui a des effets désastreux sur les pays pauvres. En outre, les pays occidentaux n'ont jamais dédommagé leurs anciennes colonies au titre de la colonisation et de l'esclavage. Enfin, une aide financière aiderait les populations des pays pauvres à vivre dignement - rappelons qu'encore aujourd'hui, 800 millions de personnes souffrent de la faim. Selon vous, quelle part du PIB (c'est-à-dire de la production) des pays riches devrait être transférée aux pays pauvres ?
(%)
()

Opinions (aides)

Q7 Êtes-vous en faveur d'une assurance chômage européenne ? Une partie des cotisations chômage de chaque européen serait versée dans une caisse commune, qui financerait une allocation chômage minimale pour les demandeurs d'emploi européens. Cela renforcerait la solidarité au sein de l'Union européenne puisque les pays avec un fort taux de chômage recevrait des fonds des pays en plein-emploi.
(Oui, Non)

Q8 Êtes-vous en faveur d'un revenu de base européen, c'est-à-dire un revenu minimal garantissant à tous les européens de quoi survivre, dépendant du niveau de vie de chaque région ?
(Oui, Non)

Q9 Êtes-vous en faveur d'une suppression des aides de l'État pour les escrocs et les voleurs ?
(Oui, Non)

Héritage

Randomized Questions

Q11 Selon vous, quel devrait être le taux d'imposition maximal sur les successions (c'est-à-dire sur l'héritage) ?
(%)
()

Q12 Selon vous, combien devrait recevoir un enfant dont les parents possédaient 1 milliard d'euros, à la mort de ceux-ci ?

Q13 Selon vous, combien devrait recevoir un enfant dont les parents possédaient 1 million d'euros, à la mort de ceux-ci ?

Q14 Selon vous, combien devrait recevoir un enfant dont les parents possédaient 10 millions d'euros, à la mort de ceux-ci ?

Opinions (fiscalité)

Q15 Êtes-vous en faveur d'une simplification du système fiscal français ?
(Oui, Non)

Q16 Actuellement, les taux d'imposition sont votés au Parlement. Ce n'est pas le seul processus possible : par exemple, on pourrait déterminer le barème d'imposition préféré des citoyens à partir d'un sondage, et soumettre la proposition qui ressortirait du sondage à référendum. Pensez-vous qu'il faudrait consulter les citoyens de la sorte pour déterminer les taux d'imposition ?
(Oui, Non, Il faudrait mieux prendre en compte l'avis de chacun, mais à l'aide d'une autre méthode)

Q36 Êtes-vous en faveur d'une fusion de l'impôt sur les revenus et des cotisations sociales ?
(Oui, Non)

Niveau de vie désiré

Randomized Questions

Q18 Quel niveau de vie aimeriez-vous avoir ? Les chiffres indiqués entre parenthèses le sont à titre indicatif, ils sont exprimés en revenu net avant impôt et s'appliquent pour une personne seule.
(Avoir juste un toit et de quoi manger (autour de 800€/mois), Avoir de quoi vivre modestement (aut...)

Q19 Quel serait le revenu de vos rêves ? (net par mois, en euros)

Opinions (politique)

Q20 À quel point êtes-vous intéressé·e par la politique ?
(Presque pas, Un peu, Beaucoup)

Q21 Comment vous définiriez-vous ? Plusieurs réponses sont possibles
(D'extrême gauche, De gauche, Du centre, De droite, D'extrême droite, Conservateur, Libéral, Human...)

Préférences pour la distribution

Q22 Si la France était une société idéale, quel serait le revenu mensuel le plus élevé ? (en euros)

Revenu de base

Q22 Combien devraient gagner, chaque mois, ceux qui ne touchent que les aides de l'État ? (en euros)

Q23 Quel devrait être le montant mensuel du revenu de base ? (en euros)

Q24 Quel devrait être le montant mensuel minimal garanti à tous ? (en euros)

Q25 Quel est le revenu minimal que l'État doit assurer à chacun·e en France ? (en euros par mois)

(Dés)avantager

Q28 À l'occasion d'une réforme fiscale qui opérerait une redistribution des plus riches vers les plus pauvres, quelle proportion de français faudrait-il désavantager par la réforme ? Ce qu'on appelle être désavantagé par la réforme, c'est voir ses revenus après impôts baisser par rapport à la situation actuelle, et cela concernerait les français les plus riches.
(%)
()

Q29 À l'occasion d'une réforme fiscale qui opérerait une redistribution des plus riches vers les plus pauvres, quelle proportion de français faudrait-il avantager par la réforme ? Ce qu'on appelle être avantagé par la réforme, c'est voir ses revenus après impôts augmenter par rapport à la situation actuelle, et cela concernerait les français les plus pauvres.
(%)
()

Revenu maximal

Q30 Selon vous, que devrait être le taux d'imposition maximal des revenus en France ?
(%)
()

Q34 Selon vous, que devrait être le taux d'imposition maximal des revenus en France ? Il peut être utile ici de rappeler qu'au-delà d'un certain seuil, l'imposition des plus riches est souvent contre-productives, puisque ces derniers partent à l'étranger ou réduisent leur activité pour éviter la hausse des taxes.
(%)
()

Q31 Selon vous, quel est le revenu maximal qui devrait être instauré en France ? (revenu net par mois, en euros)

Q35 Selon vous, quel est le revenu maximal qui devrait être instauré en France ? (revenu net par mois, en euros) Il peut être utile ici de rappeler qu'au-delà d'un certain seuil, l'imposition des plus riches est souvent contre-productives, puisque ces derniers partent à l'étranger ou réduisent leur activité pour éviter la hausse des taxes.

Quotient conjugal

Q33 L'individualisation consiste à déterminer le taux d'imposition de quelqu'un uniquement en fonction de ses revenus, par opposition au quotient conjugal qui fait baisser le taux d'imposition des couples mariés. Êtes-vous pour ou contre l'individualisation de l'impôt sur les revenus ?
(Pour, Contre)

Q34 Le quotient conjugal permet de prendre en compte les revenus du conjoint dans le calcul des taux d'imposition de quelqu'un, ce qui fait baisser l'impôt des couples mariés. Êtes-vous pour ou contre le quotient conjugal ?
(Pour, Contre)

Distribution préférée

Q35 Attention, cette question est la plus difficile à comprendre, veuillez prendre votre temps. 5 distributions des revenus différentes sont proposées ci-dessous. Chaque courbe représente les revenus des adultes français, du plus pauvre au plus riche. Par exemple, d'après la première courbe, le français le 45 millionième le moins riche gagnerait 40.000€ par an. Les différentes courbes montrent comment le même revenu national de la France peut être réparti entre les gens, de façon plus ou moins égalitaire. Selon vos préférences en matière d'inégalités, vous devriez pouvoir noter chaque courbe, par une note entre -3 et 3 : il suffit de déplacer le curseur sous chaque courbe. 0 signifie que vous êtes indifférent vis-à-vis de la distribution, 3 signifie que la distribution vous convient parfaitement, -3 signifie que vous voulez pas du tout vivre dans une société avec une telle distribution des revenus. Si vous n'avez pas compris comment lire les courbes ou que vous ne savez pas quoi répondre, vous pouvez attribuer la note 0 à toutes les courbes ou passer à la question suivante.
(<div id="prefere" style="width:500px;height:300px;">préférée par l'enqu&...)
()

Approbation de la réforme

Q53 Imaginez une réforme fiscale qui aurait les caractéristiques suivantes : la distribution actuelle des revenus des français (en rouge) serait remplacée par une distribution plus égalitaire (en vert [distribution préférée par l'enquêté - déduite des réponses précédentes]) ; cette réforme instaurerait un revenu de base garanti à chacun de [basic income desired by respondent] €/mois, désavantagerait les [proportion disadvantaged from previous answers] % les plus riches par rapport à la situation actuelle mais avantagerait les [proportion advantaged from previous answers] % les plus pauvres ; elle opérerait un transfert de [calculé]€ des plus riches vers les plus pauvres, par rapport à la situation actuelle.
Approuveriez-vous une telle réforme fiscale ?
(Oui, Non)

Q54 Imaginez une réforme fiscale qui aurait les caractéristiques suivantes : la distribution actuelle des revenus des français (en rouge) serait remplacée par une distribution plus égalitaire (en vert [distribution préférée par l'enquêté - déduite des réponses précédentes]) ; cette réforme instaurerait un revenu de base garanti à chacun de [basic income desired by respondent] €/mois, désavantagerait les [proportion disadvantaged from previous answers] % les plus riches par rapport à la situation actuelle mais avantagerait les [proportion advantaged from previous answers] % les plus pauvres ; elle opérerait un transfert de [calculé]€ des plus riches vers les plus pauvres, par rapport à la situation actuelle.
Votre revenu après impôts est estimé à [calculé]€/mois. Si cette réforme était mise en place, votre revenu après impôt passerait à [calculé]€/mois.
Approuveriez-vous une telle réforme fiscale ?
(Oui, Non)

Redistribution sectorielle

Q48 Faudrait-il, à l'occasion d'une réforme du système fiscal ou du système de protection sociale, augmenter ou baisser les revenus des catégories suivantes : les chômeurs, les sans-abri, les retraités, les smicards, les femmes, les cadres, les actionnaires, les propriétaires ?
(chômeurs, sans-abri, retraités, smicards, femmes, cadres, actionnaires, propriétaires)
(Augmenter fortement, Augmenter légèrement, Maintenir au niveau actuel, Baisser légèrement, Baisse...)

Q47 Faudrait-il, à l'occasion d'une réforme, augmenter ou baisser les montants des catégories suivantes : la TVA, l'ISF, les salaires des heures supplémentaires, les cotisations sociales, la taxe foncière ?
(TVA, ISF, heures supplémentaires, cotisations sociales, taxe foncière)
(Augmenter fortement, Augmenter légèrement, Maintenir au niveau actuel, Baisser légèrement, Baisse...)

Taxation du capital

Q45 Faudrait-il, à l'occasion d'une réforme fiscale, augmenter la taxation des revenus du capital et baisser la taxation des revenus du travail, ou l'inverse ?
(Taxer davantage le capital, Taxer davantage le travail)

Q46 Actuellement, 23% des prélèvements obligatoires proviennent des impôts sur le capital et sur les revenus du capital. À l'occasion d'une réforme fiscale, à quelle part des recettes de l'État devrait être porté ce chiffre ?
(%)
()

References

Alberto Alesina & Eliana La Ferrara. Journal of public economics. *Preferences for redistribution in the land of opportunities*, 2005. doi: 10.1016/j. URL `http://darp.lse.ac.uk/papersDB/Alesina-LaFerrara_(JPubE05).pdf`.

Alberto Alesina, Rafael Di Tella, & Robert MacCulloch. Inequality and happiness: are europeans and americans different? *Journal of Public Economics*, 2003. URL `http://www.people.hbs.edu/rditella/papers/jpubehappyineq.pdf`.

Alberto F. Alesina & Paola Giuliano. Preferences for redistribution. *NBER Working Paper*, 2009. URL `http://www.nber.org/papers/w14825.pdf`.

Lucy Barnes. The size and shape of government: preferences over redistributive tax policy. *Socio-Economic Review*, 13(1):55–78, Mar 2014. ISSN 1475-147X. doi: 10.1093/ser/mwu007. URL `http://dx.doi.org/10.1093/ser/mwu007`.

Pierre Bourdieu. L'opinion publique n'existe pas. *Les temps modernes*, 1973. URL `http://www.homme-moderne.org/societe/socio/bourdieu/questions/opinionpub.html`.

Giacomo Corneo & Hans Peter Grüner. Individual preferences for political redistribution. *Journal of Public Economics*, 2002. URL `http://darp.lse.ac.uk/papersDB/Corneo-Gruener_(JPubE_02).pdf`.

Dynegal. Enquête dynegal, dynamique des inégalites : la formation des représentations. Technical report, Centre Maurice Halbwachs, GEMASS, Pacte, 2013. URL `http://dynegal.org/sites/default/files/brochure_resultats_tns_version_def.pdf`.

Christina Fong. Social preferences and self-interest and the demand for and redistribution. 2001. URL `https://www.cmu.edu/dietrich/sds/docs/fong/JPubEc2001.pdf`.

Michel Forsé & Maxime Parodi. Perception des inégalités économiques et sentiment de justice sociale. *Revue de l'OFCE*, 102(3):483, 2007. ISSN 1777-5647. doi: 10.3917/reof.102.0483. URL `http://www.ofce.sciences-po.fr/pdf/revue/20-102.pdf`.

Michel Forsé & Maxime Parodi. Les français et la justice fiscale. *Revue de l'OFCE*, 2014. URL `http://www.ofce.sciences-po.fr/pdf/revue/04-137.pdf`.

Juliette Fournier. Generalized paretio curves: Theory and application using income and inheritance tabulations for france 1901-2012. Master's thesis, Paris School of Economics, 2015. URL `http://www.piketty.pse.ens.fr/files/Fournier2015.pdf`.

Elvire Guillaud. Analyse de la demande de redistribution. 2008. URL `http://archive.cfecgc.org/e_upload/pdf/ires2008.pdf`.

Elvire Guillaud. Preferences for redistribution: an empirical analysis over 33 countries. *Journal of Economic Inequality*, 11(1):57–78, Oct 2011. ISSN 1573-8701. doi: 10.1007/s10888-011-9205-0. URL `http://dx.doi.org/10.1007/s10888-011-9205-0`.

Friedrich Heinemann & Tanja Hennighausen. Don't tax me? determinants of individual attitudes toward progressive taxation. 2010. URL `ftp://ftp.zew.de/pub/zew-docs/dp/dp10017.pdf`.

L. Kenworthy & L. McCall. Inequality, public opinion and redistribution. *Socio-Economic Review*, 6(1):35–68, Dec 2007. ISSN 1475-147X. doi: 10.1093/ser/mwm006. URL `http://dx.doi.org/10.1093/ser/mwm006`.

Ilyana Kuziemko, Michael I. Norton, Emmanuel Saez, & Stefanie Stantcheva. How elastic are preferences for redistribution? evidence from randomized survey experiments. *American Economic Review*, 105(4):1478–1508, Apr 2015. ISSN 0002-8282. doi: 10.1257/aer.20130360. URL `http://dx.doi.org/10.1257/aer.20130360`.

Christpoh Lakner & Branko Milanovic. Global income distribution. *the World Bank Economic Review*, 2015. URL `https://www.gc.cuny.edu/CUNY_GC/media/LISCenter/brankoData/wber_final.pdf`.

Camille Landais, Thomas Piketty, & Emmanuel Saez. *Pour une révolution fiscale*. Seuil, 2011. URL `http://revolution-fiscale.fr/Pour_une_revolution_fiscale.pdf`.

Michael McBride. Relative-income effects on subjective well-being in the cross-section. *Journal of Economic Behavior & Organization*, 2001. URL `http://sites.uci.edu/mcbride/files/2012/02/RelativeIncomeEffectsSWB_JEBO_20012.pdf`.

Leslie McCall & Lane Kenworthy. Americans' social policy preferences in the era of rising inequality. *PPS*, 7(03):459, Aug 2009. ISSN 1541-0986. doi: 10.1017/s1537592709990818. URL `http://dx.doi.org/10.1017/S1537592709990818`.

David Morawetz, Ety Atia, Gabi Bin-Nun, Lazaros Felous, Yuda Gariplerden, Ella Harris, Sami Soustiel, George Tombros, & Yossi Zarfaty. Income distribution and self-rated happness: Some empirical evidence. *The Economic Journal*, 1977. URL `http://www.jstor.org.sci-hub.cc/stable/2231556`.

Frank Neher. Preferences for redistribution across the world. 2011. URL `http://www.wiwiss.fu-berlin.de/en/fachbereich/vwl/corneo/dp/Preferences_for_Redistribution_around_the_World_VDiss.pdf`.

M. I. Norton & D. Ariely. Building a better america–one wealth quintile at a time. *Perspectives on Psychological Science*, 6(1):9–12, Jan 2011. ISSN 1745-6924. doi: 10.1177/1745691610393524. URL `http://dx.doi.org/10.1177/1745691610393524`.

Thomas Piketty. Social mobility and redistributive politics. *Quarterly Journal of Economics*, 1995. URL `http://piketty.pse.ens.fr/fichiers/public/Piketty1995.pdf`.

Thomas Piketty. Attitudes vis-à-vis des inégalités de revenu en france and : Existerait-il un consensus ? *Comprendre (PUF)*, 2003. URL `http://piketty.pse.ens.fr/fichiers/public/Piketty2003c.pdf`.

Emmanuel Saez. Using elasticites to derive optimal income tax rates. *Review of Economic Studies*, 2001. URL `http://eml.berkeley.edu/~saez/derive.pdf`.

Monica Singhal. Quantifying preferences for redistribution. 2008. URL `https://www.hks.harvard.edu/fs/msingha/taxprefs_nov2013.pdf`.

Matthew Weinzierl. The promise of positive optimal taxation: Normative diversity and a role for equal sacrifice. 2013. URL `http://www.nber.org/papers/w18599.pdf`.