Working paper

When is redistribution popular? Social conflict and the politics of inequality

Laura Rodriguez Takeuchi

Abstract

There is a strong body of evidence linking inequality with different forms of social conflict - for example with higher crime, lower social and institutional trust and political instability. But do people consider these impacts when deciding whether to demand redistributive policies from their governments? We analyse perception data for over 15 thousand individuals in 40 countries and we find that they do. Perceptions of social conflict have a strong influence on people's demand for redistribution, even stronger than the effect of perceptions of fairness and social mobility. However, the effects seem to be stronger at lower levels of actual inequality and lower levels of actual social conflict, suggesting that governments and practitioners interested in acting upon inequality need to act quickly when inequality is starting to rise in order to capitalise the support towards redistributive policies.

Acknowledgements

I am grateful for peer review input and detailed remarks from Justina Fischer and Emma Samman which helped to improve the model and the draft, as well as useful discussion and comments received from Ricardo Fuentes-Nieva, Deborah Hardoon, Claire Melamed, Craig Valters and Kevin Watkins. The views presented are those of the author and do not necessarily represent ODI's institutional views.

Table of contents

1 Introduction

Inequality matters. It matters for growth, for poverty reduction, for the policy making process, for human development outcomes and for wellbeing; it is important both instrumentally and intrinsically.[1] Because inequality has profound implications for people's lives, it is useful to examine what individuals think of it and when they will support policies to reduce inequality. Paradoxically, the evidence on the effects of income inequality on people's perceptions of their own wellbeing (i.e. happiness) is mixed (Samman and Melamed 2013), and people across different countries differ greatly in the degree of inequality that they tolerate.

A recent United Nations Development Programme (UNDP) report highlights that perceptions and values play a significant role in shaping both the demand and the supply dynamics that affect the political economy of inequality reduction (UNDP 2014). Recent research has shown that perceptions of social mobility across countries are an important reason that attitudes to inequality differ (Alesina et al. 2004; Bjornskov et al. 2013; Corneo and Gruener 2002; Fischer 2009; Grosfeld and Senik 2008; Oishi et al. 2011). That is, if individuals think that the income generating process in the country is fair and that there is opportunity for mobility, they are less likely to be apprehensive of high inequality and to demand redistribution. But little else is known about other aspects that could affect perceptions of inequality.

This working paper explores the role of perceptions of social conflict in explaining the demand for redistributive policies. Does aversion to inequality and demand for redistribution increase when people think that there is social conflict in their country? In particular, given the strong evidence linking (actual) inequality with (actual) social conflict (Section three), we are interested in examining whether individuals perceive this relationship and consequently, whether people's perceptions of social conflict in their own country shape demands for redistribution. Using cross country data from the ISSP "Social Inequality IV" dataset we test the hypothesis that people's demand for redistribution increases when they perceive that inequality is linked to social tensions in their country. We use the term social conflict in a broad sense, to refer to rising tensions and the breakdown of social trust within different groups in a society.

We find that perceptions of social conflict have a strong influence on people's demand for redistribution. This effect is two-fold; on the one hand, when individuals perceive social conflict between those more and less privileged in their country, they seem to relate it with income disparities within their country, and thus their demand for redistribution increases. Compared to the effect of individual perceptions of fairness, the individual effect of social conflict on redistributive preferences is higher. Secondly, as expected, the more inequality people perceive, the more individuals demand redistribution, but when controlling for this perception, more *actual* inequality does not increase the demand for redistribution. However, when such (actual) inequality is accompanied by the perception of social conflict, tolerance for inequality decreases (the effect of inequality on demand for redistribution is positive) and individuals are more likely to think that the government should implement redistributive policies. These results hold even when controlling for the potential personal income gain/loss from redistribution. In other

[1] See UNDP 2014 and Samman and Melamed 2013 for a summary

words, even if individuals were to see their incomes reduced - for example by redistributive income taxes, their social concern would prevail and their perception of inequality as being an important problem to address would increase.

People recognise that some degree of inequality is unavoidable and perhaps an essential component of progress, but when inequality is perceived to breed conflict, it becomes problematic. However, people may also adapt to higher levels of inequality and return to a stable (i.e. lower) level of redistribution demand. Taking advantage of where the perceptions of social conflict and inequality are reinforcing should then be a priority for governments and policy makers interested in promoting support for redistribution and acting upon inequality. A useful policy avenue for governments trying to reduce the harmful effects of inequality would be to improve the channels through which disagreement and social cleavages can be pacifically resolved whilst simultaneously addressing political and economic disparities.

2 What do people think of inequality?

The impacts of inequality have been widely studied (See UNDP 2014 and Samman and Melamed 2013 for a summary). At the macro level, it has been linked to lower economic growth (Bourguignon 2004; Thorbecke and Charumilind 2002) and it has been identified as a barrier to poverty reduction (Besley and Burgess 2003) and human development (Watkins 2013). It has also been linked to lower health outcomes (e.g. life expectancy and infant mortality) (Pickett and Wilkinson 2009; Subramanian and Kawachi 2004), lower educational outcomes (Mayer 2000; Haveman and Smeeding 2006), increases in social problems (e.g. drug abuse and crime rates) (Pickett and Wilkinson 2009; Lederman et al. 2002) and lower social trust (Jordahl 2007).

Given this evidence, one would expect that individuals would be averse to inequality, that subjective wellbeing would be lower in more unequal countries and that people in those countries would demand more redistribution. However, empirical evidence shows that countries with high inequality do not consistently show more aversion to inequality, more demand for redistributive policies or lower levels of life satisfaction.[2] One possibility is that people recognise that progress is unavoidably linked to some degree of inequality (Deaton 2013). Not only may it be necessary to reward effort, talent, skills, entrepreneurship and innovation, but also some people benefit first from new technologies and opportunities, which are eventually available to everyone. However, when the latter does not happen and inequalities persist, it generates the aforementioned adverse impacts.

A distinction is often made between inequality of opportunities and inequality of outcomes, and there is lack of consensus on whether one should aim to reduce disparities in the former or the latter, and whether individuals are averse to one or the other. Inequality of opportunity and inequality of outcomes are not exactly

[2] For example, Alesina et al. (2004) compared the effect of inequality on people's happiness in Europe and the US, and found that although the overall effect of income inequality on happiness is a negative one, countries differ greatly in the degree of inequality they tolerate. Even for the same country the effect of inequality may change over time, as demonstrated by Grosfeld and Senik (2008) in Poland.

opposites. For example, the 'Great Gatsby curve'[3] shows that countries with higher income inequality (outcome) are also those where the relative position of a person highly depends on their parents' (thus showing fewer opportunities for mobility). However those who oppose equalizing outcomes or final consumption suggest that this overlooks diversity of preferences and tastes, as well as individual effort. In fact, recent research on inequality perceptions has showed that the impact of inequality on people's subjective wellbeing is largely affected by perceptions of fairness and social mobility (Box 1).[4]

Box 1- Inequality perceptions, fairness and social mobility

Views about fairness and opportunities for mobility largely shape the effect of inequality on subjective wellbeing.

- Grosfeld and Senik (2008) find that at the beginning of the economic transition in Poland, people associated higher inequality with increasing opportunities. However, after several years of unfulfilled expectations and disappointment with the reforms, perceptions of inequality changed as people associated it with a flawed economic system.
- Alesina et al. (2004) Oishi et al. (2011) and Fischer (2009) also attribute the differences in the effect of inequality on people's subjective wellbeing to perceptions of social mobility. In countries where people think that mobility exists, most individuals would predict a positive trajectory for themselves and thus tend to be less negatively affected by the levels of inequality. However Fischer (2009) and Bjornskov et al. (2013) warn that this relationship varies depending on the actual levels of inequality. If people perceive their society as fair, their investments (for example in human capital) tend to be higher and their demand for redistribution is lower. If actual inequality is low, those investments tend to be rewarded. But if those expectations of mobility are not met, the overall effect on wellbeing can be negative because of a 'disappointment' effect.
- Trump (2013) proposes some psychological explanations. She suggests that people tend to prefer the status quo and have a bias to 'believe in a just world'. Using a series of experiments she shows that actual inequality affects what people perceive to be 'fair' levels of inequality. People's tendency to defend existing social arrangements and to retain this belief in the face of new information about their social system generates a situation where they adjust their fairness expectations with increases in inequality.
- Where an individual stands on the social scale may also affect people's demand for redistribution. Alesina and La Ferrara (2005) for example show that future income prospects, that is whether they expect to gain or lose form redistribution, has implications for how much they support such policies. Similarly, Graham and Felton (2006) find that in Latin America relative wealth, rather than absolute increases in income, have a larger effect in people's subjective wellbeing.

[3] An expression first used by Alan Krueger, the chairman of the Council of Economic Advisers in 2012. See http://www.whitehouse.gov/sites/default/files/krueger_cap_speech_final_remarks.pdf

[4] Empirical applications of ultimatum games also support this hypothesis. In such games, two individuals have to decide on how to split a pot of money; the first player gets to choose how the money is distributed between the two of them and the second player can accept or reject the offer. If they reject, both players get nothing. If individuals were guided by pure rational behaviour, the first player would prefer to keep as much as possible for themselves and offer a very small amount to the second player. The second player would always accept the offer, because something, however little, would be better than nothing. But contrary to this prediction, second players often reject offers, unless a more 'fair' (i.e. a more equal split) offer is made. Similarly, first players foresee this and present a higher offer in the first instance (although not necessarily a 50/50 offer). The reaction of this players suggest that fairness considerations are included in people's preferences and actions, and that this applies not only to fairness of the final distribution but also with regards to the way in which the outcome has been achieved (intentions and reciprocity concerns). See Bearden, J.N., (2001). 'Ultimatum bargaining experiments: The state of the art', available at: http://darkwing.uoregon.edu/~harbaugh/Readings/Bargaining/UltimatumReview.pdf and Rabin, M. (1997) 'Bargaining structure, fairness and efficiency' available at: http://128.118.178.162/eps/get/papers/0012/0012001.pdf for more details.

3 Inequality and social conflict

Little is known about how other types of perceptions shape people's views of redistributive policies. However, because inequality has been found to have negative impacts on social cohesion and social conflict, it could be expected that individuals would demand more redistribution when they perceive that inequality is generating such adverse effects.

Inequality has been strongly linked with crime. In particular it has been connected with intentional homicide and robbery (Lederman et al. 2002) and violent crime (Kelly 2000) as well as a higher prevalence of other social problems such as drug abuse and mental illness (Pickett and Wilkinson 2010). Furthermore, this increase in social tensions has been found to act as a barrier for the strengthening of democratic institutions and a source of political instability (Acemoglu and Robinson 2000; Thorbecke and Charumilind 2002; Roe and Siegel 2011). Although inequality, or at least income inequality alone, may not always generate violent conflict (i.e. civil war) (see for example Collier and Hoeffler 1998), it is closely related. Research has generally shown that violent conflict is most likely to arise where socioeconomic inequalities are high, but that it is the combination with other types of inequalities, in particular with horizontal inequalities (inequalities between groups) in political exclusion and cultural status, that is key in explaining the link between economic inequality and the onset of violent conflict (Stewart et al. 2010; Mancini 2010; Ostby 2010 among others).

Social trust seems to be the channel through which inequality generates these adverse effects on conflict and insecurity. Inequality can contribute to social instability and undermine trust. Disagreement does not always manifest as actual conflict. Psychological research has shown that rather, the perceptions that people have about those disagreements and opposing interests is what seems to breed conflict in a vicious cycle (Kennedy and Pronin 2008). When people perceive others as biased, their situation as unjust and unacceptable, and when they are pessimistic about the possibilities of cooperation, disagreement tends to rapidly escalate into conflict (Kennedy and Pronin 2008). Inequality has been linked to lower trust in people in general- horizontal trust - (UNDESA 2013; Thorbecke and Charumilind 2002; Jordahl 2007; Fischer and Torgler 2013), as well as to lower trust in institutions being blamed for generating the unfair distribution of resources –vertical trust - (Fischer and Torgler 2013). When trust is broken, mechanisms of social control are weakened (Kelly 2000; Kennedy et al. 1998) and inequality is associated with intolerance, discrimination, and the corrosion of the rule of law (Samman and Melamed 2013). Individuals may commit crime or illegal activities due to a perceived lack of fairness and a need for redistribution (Stack 1984 in Samman and Melamed 2013; Fischer and Torgler 2013). This discontent is not always linked to absolute levels of inequality, but rather to a gap between rising expectations and limited opportunities for people to improve their lives (Muller 1985; UNDESA 2013).

In summary, socioeconomic inequality is linked to social conflict when it is high enough to break social trust. This is more likely to occur when inequality is

accompanied with political and cultural exclusion for certain groups in society and lack of opportunities for improvement. As previously shown, individuals may not always regard inequality as a concern or a matter for public action. This is strongly linked to perceptions of opportunities for mobility and fairness in a society. Does people's assessment of inequality worsen, and their demand for redistribution increase when individuals perceive that inequality is generating adverse social effects (social conflict)?

Global evidence seems to suggest that mainly because of the perceived impact on social stability and global security, inequality is increasingly present on the global political agenda, of multilateral organizations and global elites, as well as on ordinary citizens' minds (Fuentes-Nieva and Galasso 2014). This paper explores this issue further using perception data for over 15 thousand individuals in 40 countries.

Social conflict should be distinguished from violent conflict or civil war, although inequality may have an impact on both of them. Although social conflict can feed violence, violence is only one of the possible avenues in which social conflict can manifest itself. We use the term social conflict in a broader sense, to refer to rising tensions and the breakdown of social trust within a society.

4 Model

We use data from the ISSP 2009 "Social Inequality IV" dataset[5]. We use the most recent round (2009) carried out in 40 countries (see the Appendix for details). The sample of countries is varied but it does not include any low-income countries. The only Sub-Saharan African country in the sample is South Africa. Actual social conflict ranges from only 8% of people trusting others in Turkey to almost 60% in Finland and Latvia. Inequality, as measured by the Gini coefficient ranges from 0.26 in Austria to 0.60 in South Africa.

Our main interest is to analyse demand for redistribution and its correlates. The ISSP asks individuals whether they think "it is the responsibility of the government to reduce the differences in income between people with high incomes and those with low income". Responses to this question are our main dependent variable. Individuals are asked whether they 1) strongly disagree 2) disagree, 3) have no strong preference, 4) agree or 5) strongly agree with the statement presented. A strong agreement indicates a strong preference for redistributive policies. In addition, it asks people whether they think that "the government should spend less on benefits for the poor". Again individuals can express their preference in the same scale from strong disagreement to strong agreement with this statement. The more individuals agree with this statement, the less in favour of redistribution they are. Because of the ordinal nature of these responses, we use an ordered logit model for our estimation.[6]

In terms of perceptions of conflict the ISSP asks whether people think that there is conflict between rich and poor people, and between those at the top and the bottom

[5] http://www.gesis.org/en/issp/issp-modules-profiles/social-inequality/2009/

[6] A logit model is used when the dependent variable is discrete, that means that values belong to distinct and separate categories. In the case of redistribution perceptions used here, the variable can take four values: 1) strongly disagree 2) disagree, 3) no strong preference, 4) agree or 5) strongly agree. These values can be ranked (ordered) but the distinction between neighbouring points on the scale is not necessarily the same. The dependent variable is not directly observed, but a function of the model (latent variable).

of the society.[7] We use both of these measures of perceptions of social conflict.[8] We expect that when people perceive social conflict, say between the rich and the poor, their negative perception of inequality would increase (i.e. people would agree more with the statement that differences in income are too large in their country). We model redistribution demand as a function of inequality and social conflict (Box 2). Our main hypothesis is that the demand for redistribution depends on inequality, both its objective levels as well as how much of it is recognised by people, but also whether individuals *perceive* that that such inequality is generating social conflict.

Box 2- Model

The demand for redistribution is modelled as a function of inequality and social conflict. The base model is defined as follows:

Demand for redistribution=

Inequality (p) + Inequality (a) + Social conflict (p) +
*Inequality (p) * Social conflict (p) + Inequality(a) * Social Conflict (p) +*
Fairness perceptions + Experience of mobility + Potential gain +
Individual characteristics + u

Note: (p) indicates the variable reflects individual perceptions while (a) indicates an objective measure, at the country level.

Both perceptions and the 'objective' situation of the country could affect the probability of an individual to favour redistribution. We include both actual inequality – measured by the Gini coefficient – and people's perception of it – expressing that inequality is 'too large' -. Similarly, we include the perception of social conflict – expressing that there is conflict between rich and poor people-, and divide the sample to see whether the effects hold in low and high actual social conflict-countries.

Fairness perceptions and the experience of mobility are also important in determining whether a person would be more prone to be in favour of redistribution and are included accordingly. Individual characteristics such as age, gender and level of education, as well as the potential gain for redistribution are also incorporated.

We divide the sample into two groups, according to the actual levels of social conflict, to test whether the effect of perceptions of conflict is higher in countries with relatively high pre-existing social tensions. Actual social conflict is hard to measure, especially when it is not referring to armed conflict or civil war.[9,10] Rodrick (1999) for example defines 'latent social conflict' as an indication of the pre-existing social cleavages in the society, and uses this definition to measure the impact of social conflict on economic growth. By this definition, measures of social fragmentation could be a useful proxy for social conflict. Alesina et al.'s (2003) fractionalisation dataset measures ethnic, linguistic and religions heterogeneity for

[7] '*In your opinion, in <R's country> how much conflict is there between poor people and rich people? Between people at the top of society and people at the bottom?*' 1)Very strong conflicts 2) Strong conflicts 3) Not very strong conflicts 4)There are no conflicts

[8] These variables are recoded as 1 for 'Very strong conflicts' or 'Strong conflicts' and 0 otherwise.

[9] Given the country sample, a measure of armed conflict or civil war would not be the most relevant.

[10] Although the measurement of armed conflict is also not an easy task. See for example: http://www.systemicpeace.org/conflict.htm and http://www.prio.no/Data/Armed-Conflict/

190 countries in the world.[11] We use their ethnic fractionalisation indicator as a proxy for actual social conflict. In addition, when individuals are socially close, trust and trustworthiness are higher (Glaeser et al. 2000); we use data from UNDP's (2013) Human Development Index report tables[12], which measures trust as the percentage of respondents answering "yes" to the Gallup World Poll question, *"Generally speaking, would you say that most people can be trusted or that you have to be careful in dealing with people?".*[13] Even though it is possible that these two measures capture different aspects of social conflict, the sample of countries with high and low social conflict is the same, either when using the fractionalization or the social trust variables as a proxy.[14]

Income inequality is measured by a country - level Gini coefficient. Inequality data from international sources (World Development Indicators) was only available for 11 of the 40 countries in the sample. We used information on family income contained in the ISSP survey to construct a Gini index for all 40 countries. For the 11 countries with data available from WDI, the constructed Gini index is on average 2.6 percentage points lower.[15] This suggests that either there is underreporting of incomes in the ISSP as compared to other household surveys from which official Gini estimates are computed, or possible some differences arising from the use of family income rather than individual income in the construction of the Gini coefficient. Other sources of discrepancy include the inclusion/exclusion of taxes and social security, pensions and other cash benefits in some countries. Inequality perceptions are measured through the degree of agreement with the statement that *"differences in income in <R's country> are too large".*[16]

As found in the literature, perceptions about the fairness of the society largely affect how people feel about existing inequality. This incorporates the possibility that aversion to income inequality is driven by aversion to unequal opportunities. Following Bjornskov et al. (2013), we expect that when people perceive the income generating process as fair, their perception of inequality being a problem would decrease, and thus they would not demand as much redistribution. When people perceive luck, personal characteristics or connections, rather than hard work and effort, being important determinants of success, the income generating process is not perceived as very fair. We use the perceived importance of connections[17, 18] as a proxy for the perceived unfairness of the society. In a similar way, people's own experience of mobility may influence how they feel about inequality. When an

[11] One could argue that such heterogeneity is different from social conflict or that polarization measures capture better the degree of heterogeneity. However, fractionalization measures have been found to have an effect in growth and government quality, and have performed better than polarization measures (Alesina et al. 2002)

[12] This information is not in itself part of the index.

[13] Since our aim is to measure social conflict we use the percentage of people who do not answer "yes" to the aforementioned question.

[14] Countries with low social conflict are Austria, Belgium, China, Czech Republic, Denmark, Estonia, Finland, Germany, Israel, Japan, South Korea, Poland, Portugal, Russia, Sweden, Switzerland, Ukraine, UK and the US. Countries classified as having high social conflict are Argentina, Bulgaria, Chile, Croatia, Cyprus, France, Hungary, Italy, Latvia, Philippines, Slovakia, Slovenia, South Africa, Spain, Turkey and Venezuela.

[15] Large differences are found in China (the constructed Gini is almost 11 percentage points lower than the reported Gini) and Ukraine (the constructed Gini is 10 percentage points lower). A surprisingly high Gini for Norway could be explained by the exclusion of tax payments but the inclusion of pensions and social security benefits in the family earnings variable.

[16] The possible responses are: 1) strongly disagree 2) disagree, 3) have no strong preference, 4) agree or 5) strongly agree with the statement. This variable is recoded as 1 if people think they 'Strongly agree' or 'Agree' and 0 otherwise. The middle category ('Neither agree nor disagree') has been coded as missing as it doesn't reflect any strong preference in either direction.

[17] 'Please tick one box for each of these to show how important you think it is for getting ahead in life. How important is knowing the right people?'

[18] These variables are recoded as 1 if people think they are 'Essential' or 'Very important' and 0 if it is 'Not very important' or 'Not important at all'. The middle category ('Fairly important') has been coded as missing as it doesn't reflect any strong preference in either direction.

individual has first-hand experience of upward mobility, we expect a lower chance that they will think that the government should pursue redistributive policies. We measure upward mobility using the job status of the individual compared to that of their father as measured by the ISSP survey.[19]

Finally, perceptions are largely affected by individual characteristics. We include gender, age, education and employment status as well as a variable that aims to capture the potential individual gain/loss from redistribution. We use the logarithm of the distance of personal income to average country income (see Corneo and Gruner 2002) and assume that, all else constant, richer individuals face potential losses from a policy with a stronger inequality focus.

Table 1 summarises the main variables included in the analysis and the expected effect in shaping inequality perceptions.

Table 1: Variables

Variables	Expected effect	Variable Measurement Description
Redistribution	N/A	It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes
		The government should spend less on benefits for the poor
Inequality (perception)	+	Differences in income are too large
Inequality (actual)	?	Gini coefficient
Social conflict (perceived)	+	Conflict between rich and poor people
		Conflict between those at the top and the bottom of the society
Social conflict (actual)	+	Social (dis)trust
		Fractionalisation (ethnic)
Perceived Fairness	+	Importance of connections (knowing the right people) to get ahead in life
Mobility experience	-	Upward mobility (own job status vs. father's job status)
Expected gain from redistribution	+	Distance of personal income to average country income

Note: Expected direction of the effect in the probability of thinking that "it is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes" or that "the government should spend less on benefits for the poor"

[19] '*Please think about your present job (or your last one if you don't have one now). If you compare this job to the job your father had when you were <14,15,16>, would you say that the level of status of your job is (or was): Much higher than your fathers/ Higher/About equal/Lower/ Much lower than your fathers*' .This variables are recoded as 1 if people think their job status is 'Much higher' or 'Higher' than their father's and 0 otherwise. Other responses (e.g. never had a job/don't know, etc.) are coded as missing.

5 The mismatch between perceptions and objective indicators

The ISSP full dataset contains responses on perceptions of inequality for 55,238 individuals across 40 countries collected between 2008 and 2012.[20] The actual sample size for the model varies depending on the specific questions used, though in general our sample comprises over 15 thousand individual observations (see Table 14 in the Appendix).

Across all 40 countries, most people expressed the view that inequality is too large (85%) and that it is the government's responsibility to reduce it (72%) (Tables 2 and 3).

Table 2: Inequality perceptions

Inequality is too large	Freq.	Percent	Cum.
Strongly disagree	821.2327	1.52	1.52
Disagree	2,776.70	5.14	6.66
Neither agree nor disagree	4,564.66	8.44	15.1
Agree	21,191.95	39.2	54.3
Strongly agree	24,704.46	45.7	100

Table 3: Redistribution perceptions

It is the government responsibility	Freq.	Percent	Cum.
Strongly agree	17391.27	32.43	32.43
Agree	21,234.65	39.59	72.02
Neither agree nor disagree	7,394.97	13.79	85.81
Disagree	5,640.29	10.52	96.32
Strongly disagree	1,971.82	3.68	100

[20] http://www.gesis.org/en/issp/issp-modules-profiles/social-inequality/2009/

The distribution of the perception of conflict between the rich and the poor is rather different. Close to half of the people (47%) perceived strong or very strong conflicts in their countries while the remaining (53%) did not perceive any social conflicts.

Table 4: Conflict perceptions

Rich and poor	Freq.	Percent	Cum.
Very strong	7982.356	15.29	15.29
Strong	16,784.99	32.16	47.45
Not very strong	20,177.71	38.66	86.11
There are no conflicts	7,250.94	13.89	100

We investigate at the aggregate level the general relationship between objective and subjective measures of conflict and inequality. Firstly, consider whether at the country level there is an association between actual inequality measured by the Gini coefficient, and inequality perceptions. We aggregate individual responses from the ISSP survey to obtain country averages of inequality perceptions (Table 5).[21] The sample size is small (40 country observations) but the correlations obtained are indicative of the type of paradox found elsewhere in the literature. We find no significant association between countries' actual levels of inequality and people's perceptions of it. The correlation between actual inequality and social conflict, measured either by social trust, ethnic fractionalization, or a high homicide rate, [22] is also not significant for these 40 countries. Similarly, the correlations between actual and perceived conflict are mostly statistically insignificant, only the measure of trust is significantly correlated with conflict perceptions. Figure 1 below and Figure 2 in the Appendix, also show that the distribution of perceived conflict categories does not vary largely in relation to the objective measures of conflict. The boxes show how people respond when asked about social conflict in their country. Each shaded box contains half of the responses, and the line across the middle of each box shows where the average person lives in terms of actual conflict in their country. These horizontal lines do not show an important trend in terms of the actual level of social trust when people move from one perception category to the next. The top and bottoms lines coming out of the boxes capture all responses, except for those that are really extreme and which are represented by the dots. They show that the dispersion of responses (where people live in terms of actual conflict) is higher for those that respond that there are 'not very strong conflicts' in their country.

[21] These represent the percentage of people in each country that express that 'there is social conflict' in their country and that 'income inequalities are too large'.

[22] The number of homicides per 1000 people has been added to this table as an additional measure of (objective) social conflict.

Table 5: Correlations (country level)

	Inequality perception	Objective Inequality	Conflict perceptions			Objective Conflict			Fairness perception
	Too large	Gini	Rich and poor	Top and Bottom	Rich and poor (strong)	Trust	Homicides	Ethnic	Fairness
Too large (40)	1								
Gini (40)	-0.15	1							
Rich and poor (40)	0.34*	0.21	1						
Top and Bottom (40)	0.36*	0.08	0.89*	1					
Rich and poor (strong) (40)	0.29	0.25	0.91*	0.80*	1				
Trust (35)	-0.25	-0.05	-0.33*	-0.22	-0.41*	1			
Homicides (39)	-0.08	0.25	0.3	0.16	0.28	-0.25	1		
Ethnic (40)	0.1	0.15	0.03	-0.02	0.08	-0.23	0.48*	1	
Fairness (40)	0.44*	0.1	0.34*	0.16	0.33*	-0.22	0.147	0.34*	1

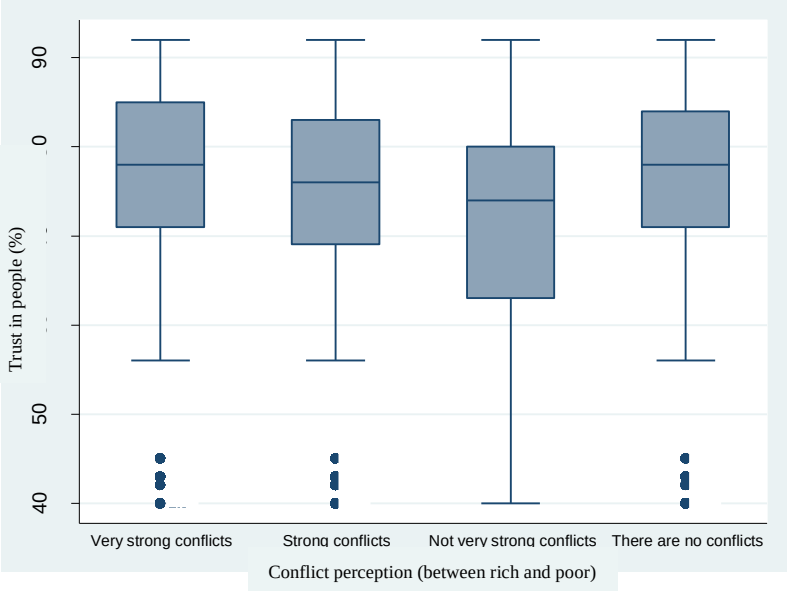
Note: Inequality, conflict and fairness perceptions in this table represent the share of people in each country that express the corresponding view.

***Too large**: share of people thinking 'inequality is too large'. **Gini**: Gini coefficient. **Conflict perceptions**: share of people that think there is conflict between rich and poor; between those at the top and those at the bottom; strong conflict between rich and poor. **Objective conflict**: share of people that think most people can be trusted; homicide rate per 1000 people; ethnic fractionalisation. **Fairness**: share of people that think connections are important to get ahead.*

The first line is the Pearson's correlations. The number of countries is indicated in brackets.

** Significant at the 5%*

Figure 1: Actual and perceived conflict. Social (dis)trust



Tables 6 and 7 below examine those perceptions of conflict in more detail, trying to understand where the mismatch between perceptions and the actual prevalence of social conflict occurs. The interesting categories are those highlighted in red. When crossing perceptions of conflict with a measure of income inequality, we see that most people that perceive strong social conflict live in countries where inequality is high. However 15% of them live in countries where inequality is relatively low. A larger share of people (25%) think there are no conflicts in their country, yet live in countries with high inequality.

Table 6: Conflict perceptions by Inequality category (%)

Gini quartiles	Very strong	Strong	Not very strong	There are no conflicts	Can't choose	N/A	Total
Low	0.15	0.22	0.30	0.27	0.22	0.31	0.25
Medium-low	0.21	0.24	0.26	0.24	0.27	0.33	0.24
Medium-high	0.30	0.28	0.22	0.24	0.29	0.08	0.26
High	0.35	0.26	0.22	0.25	0.23	0.28	0.25
Total	1.00	1.00	1.00	1.00	1.00	1.00	1.00

When crossing perceptions of conflict with a measure of objective conflict (social trust) we see again a smaller mismatch in the perceptions of those that think there is social conflict in their countries. Only a small proportion (19%) of the individuals that think that conflicts are very strong actually live in countries where conflict is low (high social trust). On the other hand, more than a quarter of those that perceive strong social conflict live in countries where trust is low.

These data suggests that the larger mismatch occurs for individuals that do not think there is social conflict. A larger proportion of them (24%) understate the degree of conflict, because they actually live in countries where objective indicators suggest a larger degree of conflict.

Table 7: Conflict perceptions by trust categories (%)

Trust quartiles	Very strong	Strong	Not very strong	There are no conflicts	Can't choose	NA	Total
Low	0.28	0.20	0.14	0.24	0.14	0.27	0.19
Medium-low	0.24	0.23	0.18	0.24	0.22	0.24	0.21
Medium-high	0.28	0.27	0.21	0.21	0.28	0.14	0.24
High	0.19	0.30	0.47	0.31	0.36	0.35	0.35
Total	1.00	1.00	1.00	1.00	1.00	1.00	1.00

While there is no significant association between actual inequality and perceptions of social conflict, perceived inequality seems to be positively correlated with perceived social conflict. Table 8 presents these individual level correlations. Regardless of the indicator used to measure conflict perceptions, the more people think that inequality is too large, the more they are inclined to perceive social conflict in their country.

Table 8: Correlations (individual level)

	Inequality perceptions	Conflict perceptions		
	Too large	Rich and poor	Top and Bottom	Rich and poor (strong)
Too large	1			
Rich and poor	0.1021*	1		
Top and Bottom	0.1074*	0.5981*	1	
Rich and poor (strong)	0.0481*	0.4457*	0.3162*	1

Note: Spearman correlation
** Significant at the 5%*

Previous studies have shown that people tend to misperceive the level of inequality and underestimate the degree of social mobility, for example in the US (Stiglitz 2013). This gap has also been widely documented with respect to crime and violence. For example, an IPSOS Mori study in the UK (Duffy et al. 2008) found

that public perceptions of crime and actual crime rates do not go hand in hand. Some of the reasons for this disconnect have to do with the role of the media and their bias in covering negative stories (e. g., a lack of crime would not be news) and framing effects – e.g., people tend to believe that their immediate community is performing better than the country as a whole. Trust in public institutions is also important, for example, lack of confidence in the justice system, as well as political views and even demographic characteristics. Our data shows that although individuals are very aware of the harmful effects of inequality, especially in terms of social breakdowns, they may tend to understate the social cleavages in their respective countries.

6 Results

We turn now to the formal model, trying to explain what shapes people's demand for redistributive policies. Table 14 in the appendix shows the ordered logit regression results. The dependent variable is the preference for redistribution, proxied by the response to the question of whether people think that it is the government responsibility to redistribute incomes. The dependent variable (redistribution) can take five levels: 1) strongly disagree 2) disagree 3) neither agree nor disagree 4) agree or 5) strongly agree. The odds ratios capture the probability of moving from one of these categories to the next, in ascending order, from lower to higher demand for redistribution.

Firstly, we see that what people think about social conflict and what they think about inequality in their country influence how much they favour redistributive policies. They both increase the odds of individuals thinking that it is the government's responsibility to redistribute, even when controlling for actual levels of income inequality. Actual inequality on its own seems to decrease demand for redistribution. This suggests that when inequality is not perceived to be 'too high' it is not considered to warrant public action.

On the other hand, the high and significant effect of conflict perceptions on redistributive preferences suggests that individuals are aware of the negative impact of inequality on social outcomes. When they effectively relate social conflict with the disparities between those more and less privileged in their country, their demand for redistribution increases.

The interaction of the two perceptions (inequality and social conflict) is negative, but only significant when we do not control for actual inequality levels and in the baseline model. This suggests that if individuals already think that inequality is 'too high', the perception of social conflict does not have an impact on their aversion to inequality. On the other hand, the interaction between actual inequality and conflict perceptions is always statistically significant; this suggests that social conflict perceptions alter the effect of actual inequality on redistribution preferences. The magnitude of the odds ratio implies that the effect of inequality is on average lower when people think there is social conflict. Note that this doesn't mean that the effect is negative (i.e. that inequality lowers the demand for redistribution when people think there is social conflict in their country) but rather that the positive effect is lower, that is, it gets smaller with higher inequality.[23] We further explore

[23] Buis (2010) highlights that the interpretation of the sign and coefficient of these interactions can be problematic. We are aiming to see the effect of inequality changes, for a unit increase in perceived conflict; in this case that is, for a person that thinks that there is social conflict, compared to one who thinks there is not social conflict. The

this result with the marginal probabilities, and see that for the higher response category (high demand for redistribution), this is not the case.

Fairness perceptions also have an impact on the demand for redistribution: people who think that connections are important to get ahead in life, and consequently perceive their society as less fair, are more likely to demand more redistribution. This impact is much lower than the impact of inequality or conflict perceptions. The effect of the relative position of an individual on the income scale is negative, when controlling for actual levels of inequality. As expected, this means that individuals that would lose from redistributive policies (i.e. through higher taxes) would be less inclined to express a preference for redistribution. The past experience of mobility is only significant when asking about expenditure on benefits for the poor, rather than about the redistribution of incomes.

We turn to a more detailed look at the impact of conflict perceptions on redistributive preferences. Table 9 presents the predicted probability of all of the possible response categories (strongly disagree, disagree, neither, agree, strongly agree) for the baseline model holding variables at their average levels. This exercise is useful to compare the magnitude of the impact of the different variables on redistributive preferences. The first two lines compare the observed and the predicted probability than an individual will favour redistribution. They show again that the model fits the data well, although it tends to overestimate the first four categories and underestimate the probability of strongly agreeing with redistribution.

In Table 9 we see again that, holding all else constant, the impact of fairness perceptions on strongly agreeing with redistribution implied by the difference of the predicted probabilities is quite small (seven percentage points) compared to the impact of inequality perceptions and conflict perceptions. Inequality perceptions increase the probability of strongly agreeing with redistribution by 31 percentage points while conflict perceptions increase it by 13 percentage points. For the lower categories (strongly disagree, disagree and neither) the differences in the predicted probabilities by conflict and fairness perceptions are small. These results suggest that the perceptions of conflict and fairness seem to affect more those with very strong positive preference for redistribution. Finally, actual levels of inequality seem to have a negative effect on the probability of strongly agreeing with redistribution. As mentioned before, it is possible that once controlling by the perceived inequality and fairness, more objective inequality does not increase the demand for redistribution.

marginal effects capture this effect. The odds ratio captures a slightly different effect; it gives the *ratio* by which the effect of inequality changes, for a unit increase in perceived conflict. This effect is presented in multiplicative terms and thus differs from the marginal effects.

Table 9: Predicted probabilities (marginal effect). Redistribution preferences

%	Strongly disagree	Disagree	Neither	Agree	Strongly agree
Observed, full sample	0.015	0.051	0.084	0.392	0.457
Predicted, full sample	0.026	0.091	0.116	0.425	0.342
By actual inequality					
dy/dx	0.051	0.152	0.148	0.09	-0.441
By perception of inequality					
No	0.161	0.322	0.199	0.249	0.069
Yes	0.022	0.078	0.104	0.414	0.381
diff	-0.139	-0.244	-0.095	0.165	0.312
By perception of social conflict					
No	0.036	0.117	0.14	0.431	0.277
Yes	0.02	0.072	0.097	0.406	0.405
Diff	-0.016	-0.045	-0.043	-0.025	0.128
By perception of fairness					
No	0.025	0.086	0.112	0.421	0.357
Yes	0.034	0.113	0.136	0.431	0.286
diff	0.009	0.027	0.024	0.01	-0.071

Note: Yes/No indicates the predicted probability for an individual to choose the respective response category (redistribute) when he also holds/does not hold a perception of inequality, social conflict or fairness in their country.

Our main interest is the probability of individuals agreeing or strongly agreeing with redistribution, and thus we mainly focus the discussion here on the predicted probabilities for these two categories. Tables 10 -12 below show these results in detail.

Looking more closely at the impact of conflict perceptions (Table 10), we note that the probability of agreeing with the statement that it is the government responsibility to redistribute is 43%, when there is no social conflict perception and, surprisingly, slightly lower (41%) when there is such perception. This may

reflect more people switching to the higher category response (strongly agree). In fact, for this category, the probability of strongly agreeing with redistribution, in the absence of the perception of social conflict is 28%, but when there is a perception of conflict, that probability is much higher, over 40%. Having the perception of social conflict increases the probability of strongly agreeing with redistribution in countries with high and low actual social conflict. However, this increase is higher in countries where actual social conflict is low and, presumably, people would be more afraid of the impact of rising tensions in the society.

Table 10: Predicted probabilities. Redistribution preferences: Agree and strongly agree

	Redistribute = agree	**Redistribute = strongly agree**	**Redistribute = strongly agree**	**Redistribute = strongly agree**
Social conflict perception	Full sample	Full sample	High social conflict	Low social conflict
No	0.431	0.277	0.349	0.272
Yes	0.406	0.405	0.439	0.398
Diff.	-0.025	0.128	0.09	0.126
N	15152	15152	5838	7481

The interaction terms show how social conflict perceptions influence inequality's effect, both perceived and actual, on the demand for redistribution. We saw before that the interaction with perceptions of inequality is not always statistically significant (although it is in the base model), so we discuss only the interaction with actual levels of inequality (i.e. Gini coefficient). We estimate the predicted probability of agreeing and strongly agreeing with redistribution when people perceive (or not) that there is social conflict in their country, and according to actual inequality levels. We divide actual inequality in three categories. The first one corresponds to a relatively very low Gini (10^{th} percentile - a Gini of 0.29), the second to median actual inequality (50^{th} percentile - Gini of 0.37) and finally a very high inequality (90^{th} percentile - Gini of 0.53).

As seen in Table 9, the more (actual) inequality there is, the less individuals are likely to express a strong preference for redistribution. The predicted probabilities of the interaction term in Table 11 shows that, when such objective inequality is accompanied by the perception of social conflict in their country, the tolerance to inequality decreases and individuals are more likely to think that the government should implement redistributive policies. For instance, at the median level of actual inequality, the predicted probability of strongly agreeing with redistribution is 30% when people do not perceive social conflict in their country, but it is 43% when they do. That is a 13 percentage point increase in the predicted probability, under the same objective inequality circumstances, but when the perception of social conflict is not held. This effect is similar, but of lower magnitude, when actual levels of inequality are very high. It also holds in countries with actual low levels of

conflict[24] and also when changing the depended variable and asking about poverty benefits, instead of about income redistribution. It is possible that this effect reflects the fact that some of the low-inequality countries have actually high levels of pre-tax inequality,[25] and that if only pre-tax inequality was measured, the effect would still hold for higher inequality countries.

Table 11: Predicted probabilities. Interactions

		Redistribute = agree	**Redistribute= Strongly agree**			**Poverty benefits= Strongly agree**
Inequality	**Conflict perception**	Full sample	Full sample	High social conflict	Low social conflict	Full sample
Perception (subjective)						
No	No	0.206	0.053			
	Yes	0.329	0.115			
	Diff.	0.123	0.062			
Yes	No	0.423	0.329			
	Yes	0.391	0.431			
	Diff.	-0.032	0.102			
Actual (Objective)						
Low inequality	No	0.397	0.322	0.406	0.301	0.332
	Yes	0.361	0.484	0.535	0.451	0.358
	Diff.	-0.036	0.162	0.129	0.150	0.026
Median Inequality	No	0.400	0.302	0.363	0.303	0.331
	Yes	0.383	0.433	0.47	0.42	0.354
	Diff.	-0.017	0.131	0.107	0.117	0.023
High inequality	No	0.400	0.262	0.284	0.308	0.330
	Yes	0.412	0.337	0.346	0.361	0.345
	Diff.	0.012	0.075	0.062	0.053	0. 016
N		15152	15152	5838	7481	15116

[24] The interaction effect is not significant for the subsample of countries with actual high levels of social conflict.
[25] See Joumard et al. (2012) for an analysis of the impact of taxes and transfers in OECD countries.

Finally, we compute the predicted probabilities according to the income distance of the individual to the mean country income (Table 12). We compute this probability for the 25th, 50th, 75th, 95th and 99th percentile of the income distance distribution. Individuals with higher incomes are less likely to express strong agreement with the perception that is the government responsibility to redistribute incomes. However, the distance between those with a relatively low income (25th percentile) and those at the very top of the distribution (99th percentile), is relatively small, only five percentage points. Moreover, when individuals perceive social conflict the effect of conflict perceptions on the predicted probabilities of strongly agreeing with redistribution does not decline much with income: it remains at roughly 11 percentage points even for those in the top percentile. This suggests that even when individuals may lose income from a higher policy focus on inequality, the social cost of inequality persuades individuals to support redistributive policies.

Table 12: Predicted probabilities. Inequality perceptions by income percentile

Income pctile	Social conflict	Redistribute = strongly agree	Diff.
25th	No	0.310	
	Yes	0.422	0.113
50th	No	0.298	
	Yes	0.409	0.111
75th	No	0.289	
	Yes	0.399	0.109
95th	No	0.278	
	Yes	0.385	0.107
99th	No	0.266	
	Yes	0.371	0.105

7 Implications for policy

What does this tell us about the political feasibility of redistributive policies? Firstly, in deciding whether inequality is high enough to warrant new redistributive policies, people's perceptions of social conflict are important, as well as more traditional indicators such as income inequality. The evidence presented in this paper reinforces the fact that perceptions matter. In this particular case, perceptions of social conflict shape how people feel about government redistribution. The effect of social conflict perceptions is stronger than the effect of social mobility perceptions, even considering that individuals tend to understate conflict and overstate mobility. This suggests that people are not only concerned about

inequality when it is a reflection of limited opportunities for mobility, but also when it is directly linked to negative social outcomes.

Social conflict has shaped the supply of redistribution. Historical evidence has shown that political elites and governments respond to the social pressures resulting from high inequality rather instrumentally, because they know of the potential harmful effect of inequality in social tensions or insecurity. For example, evidence from Europe shows that when faced with revolution threats, political elites used the extension of voting rights to manifest commitment to the redistribution of power (Acemoglu and Robinson 2000). A more recent survey conducted for the World Economic Forum in Davos, also showed that global elites are concerned by the social cost of inequality, in particular because of its threat to political stability and global security (Fuentes-Nieva and Galasso 2014).

Similarly, this study notes that when looking at individual data from the general public, perceptions of social conflict are important in explaining people's demand for redistribution. This indicates that there is political will from the general public to act upon inequality. People are conscious of the harmful effects that high inequality could bring to their countries, particularly in terms of rising tensions and the breakdown of social trust within a society. For policy makers facing opposition to distributional concerns it is encouraging to know that among people who perceive social conflict as a problem in their country, even more wealthy individuals who would potentially lose from redistributive policies, would be more likely to support redistribution. This suggests that when considering the trade-off between more redistribution, presumably at their expense in the form of higher income taxes, and the social cost of inequality, they would prefer taxation rather than risking the threat of social tensions and instability. It is not possible to know from this study whether that concern responds to a rational calculation of the individual costs that such conflict could bear for them in the future (for example in terms of lower returns to their investments or forgone public investment in other public goods), or to a more altruistic concern for social cohesion. Further research would be needed to uncover these issues.

Moreover, perceptions of social conflict positively affect how much actual levels of inequality influence the decision to demand more redistribution. People recognise that some inequality is inevitable, but the breaking point occurs when that inequality is perceived to be creating social tensions to the extent that they could breed conflict. Action becomes politically imperative due to perceived social conflict and its perceived relationship to inequality. Paradoxically, this effect seems to be stronger where there is less apparent need for action, that is, at lower levels of actual inequality and in countries with lower levels of social conflict. This suggests people fear strongly that inequality is serious enough to lead to conflict when there is a low base of such problems. The effect remains, but loses strength, the higher inequality is. It is possible that low inequality countries have actually higher levels of pre-tax inequality, and that such taxation policy is a reflection of the redistribution preferences streaming from concerns for social conflict. However, it is conceivable that something similar to a 'hedonic treadmill'[26] happens with inequality; as people get used to higher levels of inequality they are less afraid of the adverse social impacts it has, and return to stable (i.e. lower) level of redistribution demand.

[26] The tendency to quickly return to a relatively stable level of happiness despite major positive or negative events or life changes. This, is found for example in lottery winners reporting less happiness than expected a year after winning the prize (Gilbert 2004) and no substantial increase in life satisfaction of Chinese people despite rapid economic growth and increases in material wellbeing (Kahneman & Krueger 2006).

Given the limited sample of countries, it would be interesting in future research, to test these hypotheses further in developing countries with higher levels of inequality. Nevertheless, this research indicates that the challenge is for policy makers interested in gaining support for redistributive policies to maintain the awareness of rising inequality and its negative social impacts, even at higher levels of inequality, when people may have started to adjust their expectations. Also it is necessary for them to act quickly when inequality is starting to rise, rather than waiting until it reaches very high levels. This may be a one-off opportunity. Once inequality is already high and entrenched in the political and economic system and people have started to adapt to higher levels of inequality, it may be harder to gain support for redistributive policies.

Finally, it is important to keep in mind that distributive injustice in the economic domain is not the sole cause of social conflict. Both economic and political inequalities are highly related: wealth concentration leads to an uneven political influence of wealthy groups and a further imbalance of political rights and representation (Fuentes-Nieva and Galasso 2014). Thus the simultaneous redistribution of material and 'political goods' (intangible goods that partly determine the degree of an individual's inclusion in society, for example the perception of citizenship, access to information, opportunities, etc.), as well as improving the channels through which disagreement and social cleavages can be pacifically resolved, could provide a viable way of aligning subjective and objective dimensions of inequality (ECLAC 2010) and a useful policy avenue for governments trying to prevent the harmful effects of inequality. Mechanisms of participation and accountability, improving the effectiveness and fairness of the judiciary system, and acting upon political horizontal inequalities[27] are some of the alternatives. Given that inequalities tend to reinforce themselves, it is necessary to act quickly upon inequality even when countries are starting from low base. With this in mind, the policy lessons emerging from this study would be relevant for practitioners and policy makers not only in a few countries for which we know the problem of inequality is deep rooted in the system, but mainly for an increasing number of countries with low but rising levels of inequality, who want to avoid its harmful consequences.

[27] For example some alternatives explored by Mine et al. (2013) in multi-ethnic societies are systems of shared or dispersed power.

References

Acemoglu, D. and Robinson, J.A. (2000). Inequality, Growth and Development: Democratization or Repression. *European Economic Review*, Vol 44, pp. 683-693

Alesina, A., Devleeschauwer,A., Easterly, W., Kurlat, S. and Wacziarg, R. (2003) Fractionalization. *Journal of Economic Growth*, Vol. 8, pp.155-194

Alesina, A., Di Tella, R. and MacCulloch, R. (2004). Inequality and Happiness: are Europeans and Americans Different? *Journal of Public Economics*, Vol. 88, Issue 9/10 pp: 2009-2042

Alesina, A. and La Ferrara, E. (2005). Preferences for Redistribution in the Land of Opportunities. *Journal of Pulbic Economics*, Vol 89, pp. 897-931

Besley and Burgess (2003). Halving Global Poverty. *Journal of Economic Perspectives*, Vol. 17(3), pp. 3-22

Bjornskov, C., Dreher, A., Fischer, J.A. V., Schnellenbach, J., Gehring, K., (2013). Inequality and Happiness : When Perceived Social Mobility and Economic Reality do not Match. *Journal of Economic Behavior & Organization*, Vol 91., pp. 75-92

Bourguignon, F. (2004). *The Poverty-Growth-Inequality Triangle*. World Bank Working Paper, No. 28102.

Buis. M. (2010). Stata tip 87: Interpretation of Interactions in Non-Linear Models. *The Stata Journal*, Vol. 10 (2), pp. 305–308

Collier, P and Hoeffler, A. (1998). On Economic Causes of Civil War. *Oxford Economics Paper*, 50, pp.563-573

Corneo, G. and Gruner, H.P. (2002). Individual Preferences for Political Redistribution. *Journal of Public Economics*, Vol. 83 (1), pp. 83-107

Deaton, A. (2013). *The Great Escape. Health, Wealth and the Origins of Inequality*. Princeton and Oxford: Princeton University Press

Duffy, et al. (2008). *Closing the Gaps. Crime and Public Perceptions*. Available at: http://www.ipsos-mori.com/DownloadPublication/11_sri_crime_closing_the_gaps_012008.pdf

ECLAC (2010). Latin America in the Mirror. Objective and Subjective Dimensions of Social Inequality and Well-being in the Region. ECLAC, Spanish International Cooperation Agency for Development (AECID) and Corporacion Latinobarometro

Fischer, J. (2009). The Welfare Effects of Social Mobility: An Analysis of OECD Countries. *MPRA Paper*, N. 17070.

Fuentes-Nieva, R. and Galasso, N. (2014). Working for the Few. Political Capture and Economic Inequality. *Oxfam Briefing Paper*, 178.

Gilbert, D.(2004). *The Surprising Science of Happiness*. TED talks. [online] Available at: http://www.ted.com/talks/dan_gilbert_asks_why_are_we_happy.html

Glaeser, E. Laibson, D.I., Scheinkman, J.A., Soutter, C.L. (2000). Measuring Trust. *The Quarterly Journal of Economics*, Vol. 115 (3), pp. 811-846.

Graham and Felton (2006). Inequality and Happiness: Insights from Latin America. *Journal of Economic Inequality*, Vol 4 (1), pp. 107–122

Grosfield, I. and Senik, C. (2009). The Emerging Aaversion to Inequality. Evidence from Long Subjective Data. *Paris School of Economics Working Paper*, N° 2008-19.

Haveman, R. and Smeeding, T.M. (2006) The Role of Higher Education in Social Mobility. *Future of Children*, 16(2), pp. 125-50.

International Social Survey Programme (ISSP) (2009). *Social Inequality IV*. ZA5400 V3.0.0. Available at: http://www.gesis.org/en/issp/issp-modules-profiles/social-inequality/2009/

Jordahl, H. (2007). *Inequality and Trust.* Working Paper Series, 715, Research Institute of Industrial Economics.

Kahneman, D. & Krueger, A.B. (2006). Developments in the Measurement of Subjective Well-Being. *Journal of Economic Perspectives*, 20(1), pp.3–24.

Kelly, M. (2000). Inequality and Crime. *Review of Economics and Statistics*, Vol. 84(4), pp. 530-539

Kennedy et al. (1998) Social Capital, Income Inequality, and Firearm Violent Crime. *Social Science and Medicine*, Vol. 47(1), pp. 7–17

Kennedy, K.A. and Pronin, E. (2008). When Disagreement Gets Ugly: Perceptions of Bias and the Escalation of Conflict. *Personality and Social Psychology Bulletin*, Vol. 34 (6), pp.833-848

Lederman, D., Fajnzylber, P. and Loayza, N.(2002) Inequality and Violent Crime. *Journal of Law and Economics*, Vol. 45(1), pp. 1-39.

Mancini, L. (2010). Horizontal Inequality and Communal Violence: Evidence from Indonesian Districts. In Stewart, F. (ed) (2010). *Horizontal Inequalities and Conflict. Understanding Group Violence in Multiethnic Societies*. Chippenham and Eastbourne: Palgrave MacMillan

Mayer, S.E. (2000) Income Inequality, Economic Segregation and Children's Educational Attainment. *JCPR Working Papers*, 209. Northwestern University/University of Chicago Joint Center for Poverty Research.

Melamed, C. and Samman, E. (2013). *Equity, Inequality and Human Development in a Post-2015 Framework.* Human Development Report Office Research Paper. New York: UNDP Human Development Report Office

Mine, Y., Stewart, F., Fukida-Parr, S. and Mkandawire, T.(Eds).(2013) *Preventing Violent Conflict in Africa*. Palgrave Macmillan

Muller, E.N. (1985). Income Inequality, Regime Repressiveness and Political Violence. *American Sociological Review*, Vol. 50(1), p. 47-61

Oishi et al. (2011). Income Inequality and Happiness. *Psychological Science*, Vol. 22 (9), pp. 1095-1100

Ostby, G. (2010). Inequalities, the Political Environment and Civil Conflict: Evidence from 55 Developing Countries. In Stewart, F. (ed.) (2010). *Horizontal Inequalities and Conflict. Understanding Group Violence in Multiethnic Societies*. Chippenham and Eastbourne: Palgrave MacMillan

Pickett, K.E., Wilkinson, R.G. (2010). Inequality: an Underacknowledged Source of Mental Illness and Distress. *The British Journal of Psychiatry*, 197, pp. 426–428

Pickett, K.E., Wilkinson, R.G. (2009). *The Spirit Level: Why Equality is Better for Everyone*. London: Penguin Books

Roe, M. and Siegel, J. (2011). Political Instability: Its Effects on Financial Development, Its Roots in the Severity of Economic Inequality. *Journal of Comparative Economics*, Vol. 39, pp. 279-309

Rodrick, D. (1999). Where Did All the Growth Go? External Shocks, Social Conflict, and Growth Collapses. *Journal of Economic Growth*, Volume 4(4), pp. 385-412

Stack, S. (1984). Income Inequality and Property Crime: A Cross-National Analysis of Relative Deprivation Theory. *Criminology*, Vol. 22(2), pp. 229-257.

Stewart, F. Brown, G. and Langer, A. (2010). Major Findings and Conclusions on the Relationship Between Horizontal Inequalities and Conflict, In Stewart, F. (ed.) (2010). *Horizontal Inequalities and Conflict. Understanding Group Violence in Multiethnic Societies*. Chippenham and Eastbourne: Palgrave MacMillan

Stiglitz, J.E. (2012). *The Price of Inequality: The Avoidable Causes and Invisible Costs of Inequality*. New York and London: W.W. Norton & Company

Subramanian, S.V. and Kawachi, I. (2004). Income Inequality and Health: What Have we Learned so Far? *Epidemiological Reviews*, Vol. 26 (1), pp.78-91.

Trump, K-S. (2013). *The Status Quo and Perceptions of Fairness: How Income Inequalities Influences Public Opinion*.

Thorbecke, E. and Charumilind, C. (2002). Economic Inequality and its Socioeconomic Impact. *World Development*, Vol. 30 (9), pp.1477-1495

UNDESA (2013). *Inequality Matters. Report on the World Social Situation 2013*. New York: UN

UNDP (2014). *Humanity Divided: Confronting Inequality in Developing Countries*. New York: UNDP

UNDP (2013). *Table 9: Social Integration*, in Statistical Tables from the 2013 Human Development Report. Available at: http://hdr.undp.org/en/data

Watkins, K. (2013). *Inequality as a Barrier to Human Development*. Kapuscinski Development Lectures. [online] Available at: http://kapuscinskilectures.eu/lectures/inequality-as-barrier-to-human-development/

Appendix

Table A1: Country sample

Country	Freq.	Percent	Gini	Trust (%)
Argentina	1,133	2.05	0.382	23
Australia	1,525	2.76	0.321	.
Austria	1,019	1.84	0.262	29
Belgium	1,115	2.02	0.278	30
Bulgaria	1,000	1.81	0.457	20
Chile	1,505	2.72	0.506	15
China	3,010	5.45	0.528	57
Taiwan	2,026	3.67	0.406	.
Croatia	1,201	2.17	0.361	16
Cyprus	1,000	1.81	0.292	11
Czech Republic	1,205	2.18	0.317	24
Denmark	1,518	2.75	0.317	60
Estonia	1,005	1.82	0.418	33
Finland	880	1.59	0.394	58
France	2,817	5.1	0.293	20
Germany	1,395	2.53	0.325	31
Hungary	1,010	1.83	0.322	13
Iceland	947	1.71	0.303	.
Israel	1,193	2.16	0.322	26
Italy	1,084	1.96	0.299	20
Japan	1,296	2.35	0.364	33
South Korea	1,599	2.89	0.391	26
Latvia	1,069	1.94	0.372	13
New Zealand	935	1.69	0.293	.
Norway	1,456	2.64	0.549	.
Philippines	1,200	2.17	0.513	14
Poland	1,263	2.29	0.386	25
Portugal	1,000	1.81	0.333	27
Russia	1,603	2.9	0.4	24
Slovak Republic	1,159	2.1	0.279	21
Slovenia	1,065	1.93	0.353	15
South Africa	3,305	5.98	0.591	17
Spain	1,215	2.2	0.277	22
Sweden	1,137	2.06	0.303	55

Country	Freq.	Percent	Gini	Trust (%)
Switzerland	1,229	2.22	0.291	44
Turkey	1,569	2.84	0.426	8
Ukraine	2,012	3.64	0.367	29
United Kingdom	958	1.73	0.374	35
United States	1,581	2.86	0.409	37
Venezuela	999	1.81	0.321	13

Figure A1: Actual and perceived conflict. Ethnic fractionalization

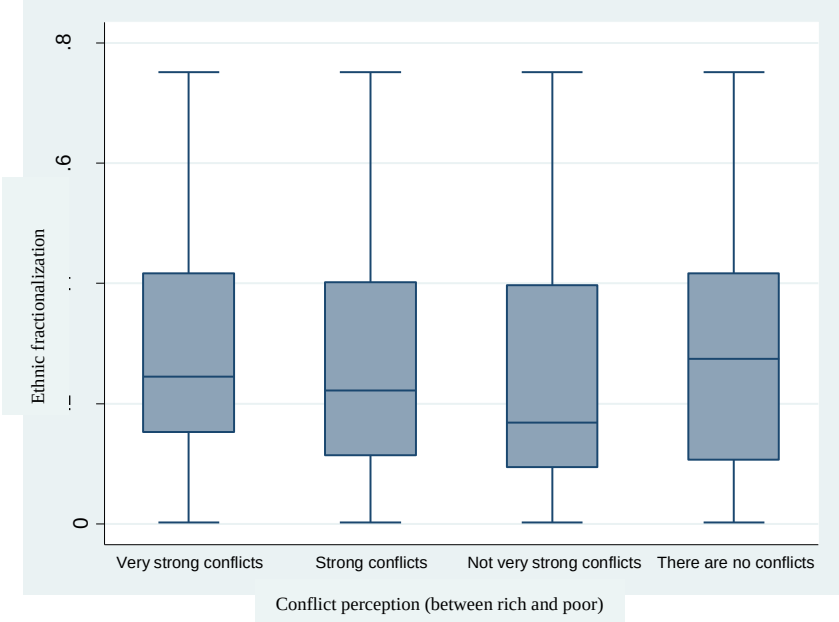


Table A2: Ordered logit regression. Odds ratios

Odds ratios	(1)	(2)	(3)	(4)	(5)	(6)
	Redistribute	Redistribute	Redistribute	Poverty benefits	Redistribute	Redistribute
		(Base model)	(High inequality and high conflict perceptions)		High social conflict	Low social conflict
inequality(p)	8.240***	8.179***	6.130***	1.619***	3.644***	13.886***
	24.034	23.739	41.468	7.09	8.767	18.926
conflict(p)	2.079***	3.836***	3.807***	1.959**	1.712	5.207***
	4.61	5.698	4.93	3.181	1.469	4.657
inequality(a)		0.284***	0.584*	0.095***	0.098***	1.167
		-4.518	-2.441	-7.698	-5.412	0.312
inequality(p)*conflict(p)	0.720*	0.691*	1.016	0.892	1.262	0.546*
	-2.027	-2.22	0.152	-0.955	0.89	-2.252
conflict(p)*inequality(a)		0.253***	0.130***	0.221***	0.367	0.173**
		-3.477	-3.475	-3.383	-1.682	-2.785
Fairness	1.202***	1.250***	1.300***	1.121**	1.211**	1.408***
	4.246	5.151	6.395	2.704	2.892	5.177
Income distance	0.952	0.902***	0.900***	0.981	0.875**	0.927*
	-1.958	-3.944	-4.207	-0.754	-3.002	-2.032
Mobility	0.918*	0.962	1.012	0.831***	0.935	0.924
	-2.241	-1.025	0.333	-4.995	-1.105	-1.437
Female	1.076*	1.057	1.099**	1.027	1.059	1.086
	2.063	1.581	2.798	0.774	1.004	1.645
Age	1.007***	1.005***	1.002	1.008***	1.001	1.007***
	5.29	3.96	1.431	5.954	0.688	3.773
Married	0.992	1.023	0.994	0.859***	1.151*	0.943
	-0.212	0.566	-0.162	-3.844	2.229	-0.994
Children	1.029	1.082*	1.052	1.072	0.906	1.095
	0.719	2.004	1.326	1.763	-1.525	1.57
Unemployed	1.1	1.137	1.083	1.289**	0.922	1.247*
	1.315	1.782	1.198	3.155	-0.788	2.025
Education (above lowest level)	1.11	1.039	1.002	1.048	1.064	1.023
	1.812	0.661	0.033	0.792	0.688	0.274
Education (higher secondary completed or above)	0.896*	0.856**	0.751***	1.425***	0.875	0.941
	-2.175	-3.083	-5.832	6.896	-1.756	-0.786
N	15152	15152	16392	15116	5838	7481
Pseudo R2	0.115	0.124	0.238	0.048	0.091	0.145
R count		0.541	0.836	0.473		

** significant at p<.05, ** at p<.01, and *** at p<.001.*

Pseudo R2 is McKelvey & Zavoina's R2.

R count is the proportion of correct predictions given by the model.

Notes:

(p) Indicates the variable reflects individual perceptions while (a) indicates an objective measure, at the country level.

The dependent variable for columns 1-3 is the demand for redistribution based on the government responsibility to redistribute incomes. In the last column (4), the demand for redistribution is based on the opinion about government expenditure on benefits for the poor.

Column 3 uses an alternative variable for perceived social conflict. Instead of asking about conflict between rich and the poor, it asks about 'those at the top/bottom'.

Colum 6 reports the results for the subsample of countries where (actual) social conflict is high-people's trust levels are low-, while column 7 corresponds to the subsample of countries where (actual) social conflict is low.

ODI is the UK's leading independent think tank on international development and humanitarian issues.

Our mission is to inspire and inform policy and practice which lead to the reduction of poverty, the alleviation of suffering and the achievement of sustainable livelihoods.

We do this by locking together high-quality applied research, practical policy advice and policy-focused dissemination and debate.

We work with partners in the public and private sectors, in both developing and developed countries.

ISSN (online): 1759-2917

ISSN (print): 1759-2909

Overseas Development Institute
203 Blackfriars Road
London SE1 8NJ
Tel +44 (0)20 7922 0300
Fax +44 (0)20 7922 0399