policy network paper

Equality: a political choice

Income inequality in Europe and the US: trends, causes and solutions

Sotirios Zartaloudis

Policy Network
Third floor
11 Tufton Street
London SW1P 3QB
United Kingdom

t: +44 (0)20 7340 2200
f: +44 (0)20 7340 2211
e: info@policy-network.net

www.policy-network.net

Abstract

This paper discusses the levels, trends and causes of income inequality in Europe and the US with a particular focus on inequalities within European countries. It argues that inequality is significantly related to political choices made by national governments in taxation and broader economic and social policy. In particular, the biggest difference between Europe and the US, which explains why the US is more unequal, is the European social model of adequate minimum wages, stronger unionisation and salaries that are more centrally or sector defined. In Europe, Mediterranean and eastern European countries are the most unequal; the UK is the most unequal of the rich EU members; continental countries rank in the middle; while the Nordics are the most equal. This variation is attributed to the different degree of redistributive policies. A mixture of policies can reduce inequality: redistributive taxation, a "flexicure" labour market, easier access to education, public housing and health services and a more inclusive immigration policy.

Sotirios Zartaloudis is a policy researcher at Policy Network. He is currently studying for an MPhil/PhD in European studies at the London School of Economics. Previously, he worked as an associate researcher at the LSE and in a number of research centres in Greece. He holds an MSc in European politics and governance from the LSE, and a BA in sociology from the University of Crete in Greece.

Contents

Executive summary

This paper discusses the levels, trends and causes of income inequality in Europe and the US with a particular focus on inequalities within European countries. It argues that although market income inequalities (before taxes and benefits) have generally risen, disposable income inequalities (after taxes and benefits) have had a rather irregular development across the European countries. This irregularity, however, is significantly related to political choices made by governments, namely in taxation and the broader economic and social policy in each country. We focus on both faces of inequality: the snapshot image for the most recent year available and its trends over the last century.

In order to explain the causal mechanisms of inequality we compare levels and trends of inequality in Europe and the US. We argue that the biggest difference between the two is the European social model: adequate minimum wages, stronger unionisation and salaries that are more centrally or sector defined are the main reasons why Europe is more equal than the US. With regards to disposable income inequality across the European countries, the different public policy choices in taxation, welfare provision, education and health provide the most reliable account for the different levels of inequality. In short, Mediterranean and eastern European countries show the highest levels of inequality; the UK the highest compared to the rest of the rich EU members; continental countries are in the middle – just below the EU average – while the Scandinavian countries are the most equal societies in Europe and in the OECD.

Finally, we suggest a number of policies to combat inequality. First, a more progressive taxation system that succeeds in redistributing resources from the rich to the poor, while not penalising wealth. In addition, there should be more tax relief for the disadvantaged, single-parent families and the working poor. Second, easier access to education has to be a fundamental objective for policymakers. This means the provision of more funding with a particular focus on the non-privileged groups of society. Third, education should be accompanied by an efficient labour market. In this respect we argue in favour of flexicurity – the new EU employment policy model which combines education and an active and inclusive labour market. In addition, we favour a more active and inclusive immigration policy. Finally, we advocate easier access to public housing and health services.

Easier access to education has to be a fundamental objective for policymakers

1 Introduction

Inequality has always been an issue of concern in the industrial world. Big gaps in pay resulting in a coexistence of extreme wealth and poverty,[1] not only within a country but also between countries, create an unequal world where citizens feel insecure. The issues of poverty and inequality are increasingly becoming a matter of public debate and concern. In both the US and Europe there is a growing fear that globalisation increases inequality, primarily through the relocation of economic activity to countries with cheaper labour costs, leading to unemployment and poverty. This paper discusses the levels, trends and causes of income inequality in Europe, arguing that although market income inequalities have generally risen, disposable income inequalities have a rather irregular development across European countries. This irregularity, however, is significantly related to political choices made by governments, namely in taxation and the broader economic and social policy in each country.

The first part of this paper stresses the importance of inequality as a problem for policymakers. The second part discusses briefly some of the methodological challenges of measuring inequality, while the third presents the empirical evidence. The fourth part discusses the existing explanations for the trends in inequality, whereas the final part suggests some policy recommendations to tackle the problem.

1.1 Rationale for tackling inequality

Although the major focus of social policy has been traditionally the alleviation of poverty,[2] we argue that inequality is equally a problem which should be of concern to policymakers. Contrary to those who perceive inequality as the inevitable consequence of the difference in the natural talents and capabilities between people (see below), this paper argues that the high levels of inequality we see today are not "natural" phenomena and can be considerably reduced by government. Hence, contrary to the economic determinism of the free-market equilibrium, we argue that levels of inequality are primarily the result of the political choices of national governments.

> Levels of inequality are primarily the result of the political choices of national governments

But why should one focus on inequality instead of poverty? There are three main reasons why inequality is a significant problem: the first two focus on its adverse effects and the third on the weaknesses of the meritocratic arguments often used to justify inequality.[3] First, the gap between rich and poor accentuates social problems: crime and poor health are related to high levels of inequality. Wilkinson (1996) argues that societies that are poor but egalitarian have relatively high levels of good health because of the higher degree of social cohesion within such societies. In egalitarian societies there are strong community bonds between people, public space is social space, there is more involvement in social and voluntary activities outside the home and there is less anti-social aggressiveness. Moreover, higher self-esteem is evident, alongside less stress, depression, anxiety and insecurity. Although Jenks (2002) questions the causal relationship between health, wellbeing and inequality, after reviewing the evidence about the effects of inequality on a range of socio-economic variables he concludes that inequality is indeed a problem, since "the social consequences of economic inequality are sometimes negative, sometimes neutral but seldom positive" (Ibid, p. 64).

Second, inequality is a problem because wealth causes poverty. In this line of reasoning, inequality becomes the link between wealth and poverty in a much more direct and profound fashion. Poverty and

1. Alcock (1993, p. 255) argues that "poverty is the unacceptable face of inequality"

2. See Orton and Rowlingson (2007, p. 59) for a brief overview of the studies on poverty and how it has dominated the social policy debate.

3. Orton and Rowlingson (2007, p. 62-66) summarise the debate around these arguments found in the literature, concluding that inequality does matter from a social policy perspective.

wealth are interconnected since the more unequal a society, the more extreme becomes the situation at the two peaks of income. Three arguments support this correlation. First, wealth causes poverty because it simply leaves insufficient resources available for those on low incomes.[4] Second, increasing inequality gives the opportunity for wealthy people to exclude themselves from public services, leading to a breakdown in the overall concern of citizens for public goods such as education and health. This is the cause of further deterioration in the quality of public services.[5] Third, the interdependence of wealth and poverty stems from the intergenerational effects of inequality, especially in relation to social mobility. In this respect, the accessibility to services that determines the economic situation of an adult, such as education, health and housing, is uneven between rich and poor families. Thus, wealth and poverty, privilege and deprivation are interdependent – the outcome of the economic structure and the public policy goals and choices of each given society.[6]

Moreover, people who are already affluent are the most likely to inherit substantial amounts, with the poor least likely to do so (Rowlingson & McKay 2005). It is no surprise, therefore, that there is general evidence which demonstrates declining social mobility in the UK (Blanden et al 2005), since two parallel cycles seem to be dominant – the one of advantage for the wealthy and the other of disadvantage for the poor. In other words, inequality is a crucial problem in modern societies because it creates a deeply segregated society where people are entrapped in a predetermined economic position: the higher the inequality, the higher the deprivation of the poor and the affluence of the rich.

Nevertheless, one could argue that, despite the negative effects mentioned above, inequality is the inevitable consequence of the differences in the natural talents and capabilities between people. The main goal, therefore, should be to provide equality of opportunity for all members of society. It is up to individuals to try to succeed by using their own talents and capabilities; inevitably some will be more successful than others leading to an unequal society. This argument was proclaimed by Bernanke (2007) in a recent speech describing the US approach to inequality. In particular, he argued that "although we Americans strive to provide equality of economic opportunity, we do not guarantee equality of economic outcomes, nor should we." For the chairman of the US Federal Reserve, inequality is not only acceptable but also a beneficial factor in the working of the American economy, since without it, "the economic incentive for productive behaviour would be eliminated, and our market-based economy – which encourages productive activity primarily through the promise of financial reward – would function far less effectively." This view is also quite popular among politicians across the Atlantic. For example, Tony Blair and Gordon Brown are both prominent supporters of equality of opportunity rather than equality of outcome (Orton & Rowlingson 2007, p 66).

However, this view is based on the assumption that contemporary societies are fundamentally meritocratic, and its members start life on an even footing and have equal chances to advance despite glaring differences in their starting circumstances. However, as was discussed above regarding the interdependence of wealth and poverty, people do not start from the same point sharing equal opportunities, and their starting point (the socio-economic group of their family) quite often determines their position on the income ladder. Hence, the belief that inequality is the result of a just or natural process due to the different talents of people is deeply problematic.

4. For example, as was shown by Oppenheim (1993) for the UK, Margaret Thatcher's 1980s cuts in welfare benefits, combined with tax cuts that particularly favoured high earners, meant that there was a very direct redistribution of income from poorer to richer citizens.

5. Barry (1998) argues that high levels of inequality lead rich people to have less concern for other people.

6. According to Sinfield (2004) poverty has to be studied as a characteristic of a society and not just of those people who are currently living in poverty.

2 Measuring and analysing inequality

Measuring inequality is very controversial for a number of reasons. First, inequality is a multi-faceted notion as it refers not only to differences in income but also in education, attainment, health, opportunities, capabilities (Sen 1992), access to advantage (Cohen 1993) and wellbeing (Callinicos 2000). For many of these aspects of inequality, measurement is quite difficult, if not impossible (ie equality of capabilities or opportunities). Second, and more importantly, studies of inequality use different definitions of inequality, concepts of wellbeing, data and variables. For instance, some studies are concerned with absolute measures of wellbeing and others with relative inequality; some examine the levels of inequality between countries and others the levels of inequality within countries.

With regards to data, inconsistencies in terminology and method of collection cause further disagreement between scholars of inequality. In particular, some studies use national sources (national tax records, statistics, surveys etc) while others rely on international cross-country data sources such as the Luxembourg Income Study, the OECD or the Eurostat. Both approaches have merits and drawbacks. Whereas the former tends to provide richer evidence for longer periods, which can extend sometimes until the start of the 19th century, the data are not comparable between different countries since the data collection, definitions and measurements tend to differ. By contrast, the latter provide evidence that usually goes back some decades, with one significant advantage: data is compiled by the same method, the same definitions and measurements, making comparison possible and meaningful. Moreover, there is an important distinction between sample surveys and administrative archives. Data may cover the whole population or only the household population, excluding people living permanently in institutions like boarding houses, nursing homes for the elderly, prisons or military bases. Even when sources have the same nature they may considerably vary in quality, through differences in the response rate, the under-reporting of certain income components or the coverage of the bottom and the top of the distribution. Finally, significant differences can originate in the way data is processed.

Even when sources have the same nature they may considerably vary in quality

Another methodological controversy stems from the reference unit, which may be the individual income earner, the tax unit, the related or extended family or the household. The latter is also multi-defined in different databases and studies. In this respect, although total household income depends on the earnings of individual members, it is not possible to interpret directly from the distribution of individual earnings to the distribution of household incomes because "the distributional consequences of earnings depend on household composition: the number of earners in the household and the correlation of their earnings" (Atkinson 2007, p. 3). For example, an increase in the skilled-earnings differential may lead to greater household income inequality, but it may be moderated where skilled workers are married to the unskilled. Likewise, even though the income of educated workers may have increased in comparison to non-skilled ones, their children may be those who remain longer in education rather than entering the labour market as soon as possible, resulting in a decrease in the overall family income (Ibid).[7] Furthermore, a major methodological issue in studies of income inequality is the distinction between market income (income from earnings, self employment, capital and private transfers) and disposable income (the available income after taxes and transfers).[8]

From the above, it is clear that the task of reaching widely accepted conclusions is difficult. Rather, a set of methodological choices have to be made that will not be accepted by everyone involved in inequality

7. For a concise discussion of the methodological considerations with regards to the reference unit and its impact on results, see Atkinson (2003; 2007) and Smeeding (2007).

8. Another suggestion is to include in the calculation of income assets such as housing ownership (Orton and Rowlingson 2007).

studies. In this paper, in order to avoid conceptual and methodological pitfalls we use some of the most widely accepted and used definitions and data in measuring inequality. For income we follow one of the most widely used concepts of "disposable cash income", which includes all types of money income minus direct income and payroll taxes and includes all cash and near-cash transfers such as food stamps and cash housing allowances, as well as refundable tax credits such as the earned income tax credit in the US.[9] The reference unit is the household following the LIS methodology.[10] Inequality is measured with the Gini coefficient; the income at the bottom and top 10th percentiles, also known as decile ratio (90/10);[11] and the interquintile ratio (S80/S20).[12]

9. See Atkinson, Rainwater and Smeeding (1995) and the Canberra Group (2001) for more on this income definition and its robustness across nations. As Smeeding (2007, p. 73) notes, this disposable cash income concept is used not only by the LIS, but also Eurostat, UNICEF and OECD have independently made comparisons of income poverty and inequality across nations using identical or very similar measures of net disposable income. Nevertheless, this definition excludes capital gains, imputed rents, other unrealised types of capital income, home production and in-kind income. These items may account for an important share of the economic resources at a household's disposal, and their inclusion in the income definition may affect measured inequality (Brandolini & Smeeding 2007, p. 5).

10. The LIS database is the most important international data archive providing access to micro data. It includes household income surveys of 30 countries on four continents. These surveys provide income, demographic, labour market and expenditure information on three different levels: household, person and child. Its main advantage compared to other sources of data (especially from the OECD database) is that it is not drawn from national sources but uses a harmonised set of concepts, methodology and variables. Thus, the LIS database is one of the most reliable for international comparisons (see Smeeding 2002; 2004; 2006).

11. The LIS uses the decile ratio.

12. The interquintile ratio is the indicator used by Eurostat to evaluate the income inequality within the European Union. On the one hand, there is little difference between Gini indicators coming from the OECD and LIS. On the other hand, the quintile ratios are different between the LIS and Eurostat. They are higher in later estimates but, as Lefebvre (2007) has calculated, the correlation coefficient between both is high (0.739), which confirms that both give about the same ranking.

3 Inequality in Europe and the US: the empirical evidence

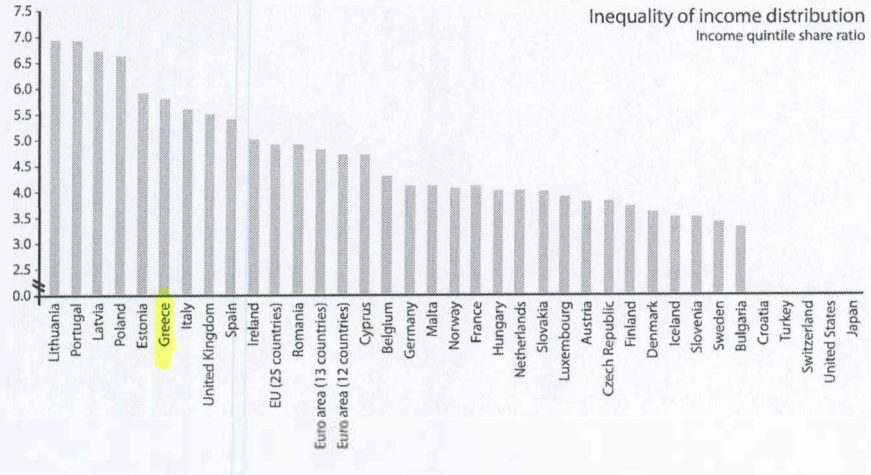
In this section we discuss the levels of inequality in rich countries with a particular focus on inequalities within European countries; a reference to the US is deemed necessary for explaining the causes behind the inequality levels and trends (section 4 and 4.1). We discuss two crucial aspects of income – market income and disposable income – arguing that although market income inequalities have generally risen, disposable income inequalities have had a rather irregular development across European countries. This irregularity, however, is significantly related to the political choices of each country's government and the respective public policies (social protection, taxation, education etc) in each country. Finally, empirical evidence clearly shows that levels of inequality are higher in the US than in Europe (the UK included), painting a portrait of two unequally equal "worlds" on either side of the Atlantic.

We focus on both faces of inequality: the snapshot image for the most recent year available[13] and the trends over the last two decades. Both figures are important: the former enables us to compare inequality levels across countries for the same time period while the latter provides us with the empirical basis to analyse the potential sources and determinants of the levels of inequality. For reasons of consistency, we use the LIS database and measurements. However, for the snapshot image we use additionally the European Union Statistics on Income and Living Conditions database[14] because it provides data for a much more recent year of reference (2005) compared to the LIS (2000 for most countries). For the trends, the analysis is based on data and secondary evidence (such as studies and reports) that use national sources. Hence, inequality trends are not directly comparable across countries. Finally, our reference unit is the household.[15]

3.1 Cross-national differences in income inequality

Starting from the EU-SILC database (Figure 1), we see that the most unequal countries in the EU are Portugal and Lithuania, with an interquintile ratio of 6.9. This is quite above the EU average of 4.9 for the EU-25 and 4.8 for the EU-15 and the Eurogroup (12). Very close to the top of the inequality table we find

Figure 1: EU-SILC 2005 inequality levels



Source: Eurostat

13. For the majority of the countries the last year of reference is 2000. For Portugal, however, figures are integrated with estimates from the European Community Household Panel database (Waves 1-8, December 2003).

14. The EU-SILC provides cross-country comparable data for all EU-25 countries, as well as Norway and Iceland. However, this database exists only from 2005 (also the last year of reference). Until 2001 (in certain cases, until 2000), data is obtained from the ECHP data source for EU-15 countries, except Denmark and Sweden. For the remaining countries and years, data is obtained from national sources which are not fully comparable with the EU-SILC. Trends in transition years cannot be interpreted reliably. In order to measure inequality EU-SILC uses the S80/S20 ratio (see also footnote 9) while income is understood as equivalised disposable income.

15. For international comparisons of poverty and inequality, the "household" is the only comparable income-sharing unit available for almost all nations. While the household is the unit used for aggregating income, the person is the unit of analysis. Household income is assumed to be equally shared among individuals within a household (Smeeding & Munzi 2005, p. 9).

Latvia (6.7) and Poland (6.6) forming a small group. Estonia (5.9) Greece (5.8), Italy (5.7) and Spain (5.4) follow, with the Mediterranean countries demonstrating a divergence from the Portuguese ratio. The UK (5.5) has the highest ratio among western European countries; Ireland (5.0) follows; and besides Romania (4.9) all the rest of Europe's inter-quintile ratio is well below, with most of the countries very close to 4.0. In particular, Cyprus's ratio is 4.3; Belgium, Germany, Malta and Norway are all 4.1; while France, Hungary and the Netherlands are on 4. Below this level, but very close to it, we find Slovakia (3.9), Austria and

Table 1: Inequality of income distribution (income quintile share ratio)

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
EU (25 countries)	:	:	:	4.6 (s)	4.6 (s)	4.5 (s)	4.5 (s)	:	4.6 (s)	4.8 (s)	4.9 (s)
EU (15 countries)	5.1 (s)	4.8 (s)	4.7 (s)	4.6 (s)	4.6 (s)	4.5 (s)	4.5 (s)	:	4.6 (s)	4.8 (s)	4.8 (s)
Euro area (12 countries)	5.1 (s)	4.8 (s)	4.7 (s)	4.5 (s)	4.5 (s)	4.4 (s)	4.4 (s)	:	4.5 (s)	4.8 (s)	4.8 (s)
Belgium	4.5	4.2	4.0	4.0	4.2	4.3	4.0	:	4.3 (b)	4	4.1
Bulgaria	:	:	:	:	:	3.7	3.8	3.8	3.6	4	:
Czech Republic	:	:	:	:	:	:	3.4	:	:	:	3.7 (b)
Denmark	2.9	:	2.9	:	3.0	:	3.0	:	3.6 (b)	3.4	3.5
Germany	4.6	4.0	3.7	3.6	3.6	3.5	3.6	:	:	:	4.1 (b)
Estonia	:	:	:	:	:	6.3	6.1	6.1	5.9	7.2 (b)	5.9
Ireland	5.1	5.1	5.0	5.2	4.9	4.7	4.5	:	5 (b)	5	5
Greece	6.5	6.3	6.6	6.5	6.2	5.8	5.7	:	6.4 (b)	5.9	5.8
Spain	5.9	6.0	6.5	5.9	5.7	5.4	5.5	5.1 (bi)	5.1	5.1 (b)	5.4
France	4.5	4.3	4.4	4.2	4.4	4.2	3.9 (bi)	3.9	3.8	4.2 (b)	4
Italy	5.9	5.6	5.3	5.1	4.9	4.8	4.8	:	:	5.6 (b)	5.7
Cyprus	:	:	:	:	:	:	:	:	4.1	:	4.3 (b)
Latvia	:	:	:	:	:	5.5	:	:	:	:	6.7 (b)
Lithuania	:	:	:	:	:	5.0	4.9	:	:	:	6.9 (b)
Luxembourg	4.3	4.0	3.6	3.7	3.9	3.7	3.8	:	4 (b)	3.9	3.8
Hungary	:	:	:	:	:	3.3	3.1	3.0	3.3	:	4 (b)
Malta	:	:	:	:	:	4.6	:	:	:	:	4.1 (b)
Netherlands	4.2	4.4	3.6	3.6	3.7	4.1 (ip)	4.0 (ip)	4.0 (ip)	4.0 (ip)	:	4 (b)
Austria	4.0	3.8	3.6	3.5	3.7	3.4	3.5	:	4.1 (b)	3.8	3.8
Poland	:	:	:	:	:	4.7	4.7	:	:	:	6.6 (b)
Portugal	7.4	6.7	6.7	6.8	6.4	6.4	6.5	7.3 (ip)	7.4 (ip)	7.2 (p)	6.9
Romania	:	:	:	:	:	4.5	4.6	4.7	4.6	4.8	4.9
Slovenia	:	:	:	:	:	3.2	3.1	3.1	3.1	:	3.4 (b)
Slovakia	:	:	:	:	:	:	:	:	:	:	3.9 (b)
Finland	:	3.0	3.0	3.1	3.4	3.3	3.7 (bi)	3.7	3.6	3.5 (b)	3.6
Sweden	:	:	3.0	:	3.1	:	3.4	3.3 (bi)	:	3.3 (b)	3.3
United Kingdom	5.2	5.0	4.7	5.2	5.2	5.2 (bi)	5.4	5.5	5.3	:	5.5 (b)
Croatia	:	:	:	:	:	:	:	:	4.6	:	:
Turkey	:	:	:	:	:	:	:	10.8	9.9	:	:
Iceland	:	:	:	:	:	:	:	:	:	3.4 (b)	3.5
Norway	:	:	3.3	3.4	3.3	3.3	3.5	3.2	3.8 (b)	3.6	4.1
Switzerland	:	:	:	:	:	:	:	:	:	:	:
United States	:	:	:	:	:	:	:	:	:	:	:
Japan	:	:	:	:	:	:	:	:	:	:	:

Source: Eurostat (EU-SILC).

Index: (:) not available; (s) Eurostat estimate; (b) brake in series; (p) provisional tables

Luxembourg (3.8), the Czech Republic (3.7) and Finland (3.6). Denmark's and Iceland's ratio is 3.5, while Slovenia (3.4) and Sweden (3.3) are the countries with the less distance between the top and bottom 20th percentile.[16]

The LIS database provides a wider snapshot image since it incorporates countries outside the EU, such as the US and Japan. According to Brandolini and Smeeding (2007, p. 5) there is a wide range of income inequality among the European countries.[17] The US is an outlier among rich nations with a 90/10 ratio of 5.7. Moreover, while a low-income American in the 10th percentile has an income that is only 37% of the median income (P10), in most northern, central and eastern European countries the income of the poor exceeds 50% of the income of a middle-income person. However, in the UK, Ireland and in the southern

Table 2: The distribution of equivalent disposable income in Europe and the US; countries are ranked by their values in the Gini index column.

Countries	P10 (Low income)	P90 (High income)	P90/P10 (Decile ratio)	Gini index
High-income economies				
Denmark 2000	57	155	2.8	0.225
Norway 2000	57	159	2.8	0.251
Finland 2000	57	164	2.9	0.247
Sweden 2000	57	168	3.0	0.252
Netherlands 1999	56	167	3.0	0.248
Slovenia 1999	53	167	3.2	0.249
Austria 2000	55	173	3.2	0.260
Luxembourg 2000	57	184	3.2	0.260
Belgium 2000	53	174	3.3	0.277
Switzerland 2000	55	182	3.3	0.280
Germany 2000	54	180	3.4	0.275
France 2000	55	188	3.4	0.278
Italy 2000	45	199	4.5	0.333
Ireland 2000	41	189	4.6	0.323
UK 1999	47	215	4.6	0.343
Greece 2000	43	207	4.8	0.338
Spain 2000	44	209	4.8	0.340
Portugal 2000	45	226	5.0	0.363
US 2000	37	212	5.7	0.370
Middle-income economies				
Slovakia 1996	56	162	2.9	0.241
Czech Republic 1996	59	179	3.0	0.259
Romania 1997	53	180	3.4	0.277
Hungary 1999	54	194	3.6	0.295
Poland 1999	52	188	3.6	0.293
Estonia 2000	46	234	5.1	0.361

Source: Brandolini's and Smeeding's (2007) calculations from the Luxembourg Income Study database, as of 10 March 2007 (figures coincide with those reported in http://www.lisproject.org/keyfigures/ineqtable.htm), and, for Portugal, from the European Community Household Panel database (Waves 1-8, December 2003); P10 and P90 are the ratios to the median of the 10th and 90th percentiles, respectively.

Observations are bottom-coded at 1% of the mean of equivalent disposable income and top-coded at 10-times the median of unadjusted disposable income. Incomes are adjusted for household size by the square-root equivalence scale. Economies are classified by the World Bank (2005) according to 2004 per capita gross national income in the following income groups: low-income economies (LIC), $825 or less; lower-middle-income economies (LMC), $826–3,255; upper-middle-income economies (UMC), $3,256–10,065; and high-income economies (HIC), $10,066 or more.

16. For a graphic presentation see Figure 1, p. 9; for the previous years' data see Table 1, p. 10.

17. See Table 1, p. 10.

European countries it is above 40%. In Greece, Portugal, Spain, the US and the UK, rich persons, those in the 90th percentile, earn more than twice the national median incomes (P90).[18]

Focusing exclusively on inequality levels in Europe, the highest market income inequality is observed in Estonia (5.1), Portugal (5.0), Spain and Greece (4.8). These precede the UK[19] and Ireland (4.6), while Italy (4.5) interestingly deviates from the rest of the Mediterranean. Consistent with the EU-SILC data of 2005, the rest of the European countries have decile ratios of less than 4.0. In particular, Poland and Hungary (3.6)[20] precede Romania,[21] Germany[22] and France (3.4). Then follow Switzerland and Belgium (3.3), while Slovenia, Austria and Luxembourg share a decile ratio of 3.2. The Czech Republic,[23] the Netherlands[24] and Sweden (3.0) are preceded by Slovakia[25] and Finland (2.9), while the lowest ratio is observed in Denmark and Norway (2.8). It should be stressed that this ranking by no means describes the whole issue of inequality. If the ranking was based on another popular measure, such as the Gini coefficient, countries would be ranked differently.[26]

Besides market income inequality presented above, equally, if not more, important is disposable income inequality. The levels of real disposable income are highly affected by the tax and benefit system of each country. A common measure of the level of redistribution is represented by the difference between the Gini index for market incomes, that is, before public transfers are added and taxes and social security contributions are deducted, and the Gini index for disposable incomes.[27] Table 3 below uses the LIS data to compare inequality in market and disposable incomes in 12 nations using the Gini index. Brandolini and Smeeding (2007, p. 11-12) find that in all countries disposable incomes are more equally distributed than market incomes, suggesting that the tax and benefit system narrows the overall distribution. On average, inequality falls by about a third, from a Gini index of 44% to one of 29%. Cross-country variation in original inequality is wider than after redistribution: the Gini index ranges from 33% to 52% for market incomes, and from 23% to 37% for disposable incomes. The US has the highest inequality of disposable incomes, but although the dispersion of market incomes is on the high side it is not far from most other countries.

Table 3: Gini indices of market income and disposable income in Europe and the US (percent); countries are ranked by their values in the reduction in Gini index column.

Country	Gini index (market income)	Gini index (disposable income)	Reduction in Gini index*
Denmark 2000	42	23	47
Sweden 2000	46	25	45
Germany 2000	48	28	43
Czech R. 1995	44	26	41
Poland 1999	50	29	41
Norway 2000	41	25	39
Finland 2000	38	25	36
Netherlands 1999	39	25	36
UK 1999	52	35	33
Romania 1997	36	28	27
Switzerland 2000	35	28	22
US 2000	48	37	23

Source: Brandolini's and Smeeding's (2007) calculations from the LIS database, as of 10 March 2007.

Observations for disposable income are bottom-coded at 1% of the mean of equivalent disposable income and top-coded at 10-times the median of unadjusted disposable income. Changes in disposable incomes due to bottom- and top-coding are entirely attributed to market incomes. Both market and disposable incomes are adjusted for household size by the square-root equivalence scale.

* Difference between the Gini index for market income and the Gini index for disposable income, expressed as a percentage of the former.

18. See Table 2, p. 11.

19. Figure for the year 1999.

20. Figure for the year 1999.

21. Figure for the year 1997.

22. Federal Republic of Germany after 1991.

23. Figure for the year 1996.

24. Figure for the year 1999.

25. Figure for the year 1996.

26. A more robust, if partial, ranking is provided by comparing the entire income distributions through the analysis of Lorenz dominance. This was introduced by Atkinson (1990), and shows that incomes are distributed less unequally in country A than in country B if the Lorenz curve of A always lies above, that is dominates, that of B. If the Lorenz curves intersect, the two distributions cannot be unambiguously ordered and their ranking varies with the inequality measure. The findings demonstrate that, although many comparisons are indeed ambiguous, at the same time they confirm the basic pattern of international inequality sketched above (Brandolini & Smeeding 2007, p. 6-7).

27. This difference provides only a first estimate of the actual impact of public redistribution, as it ignores how market income inequality would be different if there were no taxes and benefits.

Moreover, Brandolini and Smeeding (Ibid) argue that "these percentage reductions are very consistent with the patterns of aggregate public expenditure" (see also Smeeding 2005 on non-elderly spending). High-spending northern and central European nations have the highest degree of inequality reduction, from 47% to 36%; the Anglo-Saxon (excluding the US) nations and Israel are next with 33% to 28% reductions; the US and Switzerland are, as just seen, at the bottom of the scale. The degree of redistribution in southern Europe is lower than in Ireland and the UK, especially if public pensions are not included among transfers (Immervoll et al 2005). It should be stressed that the degree of redistribution across countries is not related to the degree of market income inequality.[28] Surprisingly, when comparing the Gini index of market and disposable income inequality we see that countries with some of the highest rates of market income inequality, such as the UK, Poland and the Scandinavian countries, end up having lower levels of disposable income inequality than the US. Thus, disposable income inequality seems to be determined significantly by public policy instead of market conditions and settings. This finding has important theoretical and policy implications for finding the best possible measures to reduce disposable income inequality.[29]

None of the above figures and estimates includes benefits in kind or indirect taxes. The existing literature (Garfinkel et al 2006; Smeeding et al 1993) suggests that non-cash benefits have an egalitarian impact as they reinforce the redistributive impact of cash tax-and-transfer mechanisms, bringing the income of the poor closer to the median and reducing the distance between the rich and the poor. However, this impact is not the same across countries: changes are largest in the Anglo-Saxon countries. This is not only because they tend to be short on cash and long on in-kind benefits, but they also rely less heavily than the big spending national welfare states on indirect taxes and taxation of cash benefits (Brandolini & Smeeding 2007, p. 13).

Non-cash benefits have an egalitarian impact reducing the distance between rich and poor

3.2 Inequality over time: trends or episodes?

In this section, we focus on inequality levels in the US and some European countries during the last century, due to the lack of ample empirical evidence for the rest. We argue that, despite the methodological and empirical restrictions, instead of inequality trends there are "episodes of change" which divide different time periods of inequality patterns. In particular, inequality decreased during the 1930s and 1940s, increased during the 1950s and 1960s, decreased after the early 1970s and increased after the mid-1980s. Surprisingly, despite the variations over time in inequality levels within countries, the comparative ranking of most countries with regards to inequality levels has not changed.

Studying the "history" of inequality is crucial to understanding the causes behind its current levels and the reasons for any upward or downward trend. The evidence presented below challenges the dominant and popular explanations of inequality, such as globalisation, information and communication technologies or skill-biased technical change, since inequality trends are consistent with each country's political developments. In other words, inequality is not affected by any external or internal economic or societal processes but by the political actors' choices in each country.

During the last few decades, contrary to the period between the 1950s and the early 1970s, inequality in the rich countries rose. This trend has been characterised as the "great U-turn" (Harrison & Bluestone 1988) – a conclusion that turns around the classic and famous "inverse U-turn" thesis or "Kuznets curve", named after the famous economist who suggested it, Simon Kuznets.[30] Supporters of this view claim that this reversal occurred not only in the US[31] but also internationally in a number of countries.[32] In contrast, a number of scholars argue that there has been little distributional change within countries over time. For

28. Schwabish, Smeeding and Osberg (2006) find almost no correlation between the P10 value for market income and the level of social spending.

29. See parts 4 and 5 below.

30. According to Kuznets curve, as an economy goes through a structural transformation, income inequality follows an inverse U-shape, inequality first rising and then falling as labour is transferred from low-productivity agriculture into high-productivity industry.

31. See Alderson and Nielsen (2002).

32. See Cornia and Court (2001).

example, Gustaffson and Johansson find for 16 industrialised countries that "the correlation between the Gini coefficient and the time variable is almost zero," and that there is only "a weak U-shaped relationship" (1999, p. 591). Similarly, Melchior, Telle and Wiig (2000) conclude that in industrialised and high-income developing countries, inequality has not on average changed much between 1960 and 1990 (as quoted in Atkinson 2003, p. 480).

Why is there so much disagreement on the issue? First, studying trends in inequality is quite treacherous as researchers end up with dissimilar data, broken series and other methodological pitfalls, such as different definitions over time, different data collection techniques or different data calculation by national authorities. Second, comparisons between different countries may be conducted using non-comparable units (how meaningful is it to compare the US with, for instance, the Netherlands, in order to examine whether there is a U-turn or not?). Third, many of the international databases (LIS, OECD) did not exist 50 years ago, leading researchers to collect and calculate data produced for the most part independently by official statistical agencies reflecting particular national figures, making the task of comparison impossible (Atkinson 2003, p. 483). Thus, one should be hesitant to reach definite conclusions about inequality trends. It has even been argued that it is misleading to talk about "trends" when describing the evolution of income inequality; instead one should focus on "episodes" during which inequality increased or decreased (Atkinson 1997).

Starting with the US, Brandolini and Smeeding (2007) argue in favour of the U-turn hypothesis. According to them, pre-tax inequality exhibits a very sharp fall between 1929 and 1944,[33] while in the following three decades the Gini index showed some fluctuations around a flattened trend, or a moderately declining trend.[34] In contrast, after the 1970s, "the US entered a period of unrelenting increases in income inequality," as the Gini index returned by 1980/1981 to the level of 30 years earlier, and further rose in the following decade (2007, p. 15). Following a slightly different methodology,[35] after 1968 Atkinson also finds a significant rise in the Gini coefficient, which by 1992 had risen by some 5% (2003, p. 486). However, he concludes that it is not possible to verify the U-turn hypothesis since inequality fell only during 1961 to 1968. Before this period there is no trend, and the break in the CPS series in 1993 makes it difficult to draw firm conclusions. Likewise, in a more recent study, he finds that in the period 1929 to 1944, when inequality decreased significantly, the available data is not sufficient enough to reach definite conclusions since it is covered only by a small number of data points (Atkinson 2007, p 6).

Turning to Europe, the UK shows one of the most puzzling cases. Although evidence from household surveys begins from 1961, other available evidence suggests that, until the 1960s there was little overall change in inequality levels, a position similar to the US. In the 1970s, unlike the US, inequality reduced by 3 percentage points. This fall was radically reversed in the 1980s. Two features stand out from the UK experience (Atkinson 2003, p. 487). The first is the sheer magnitude of the rise from 1984 to 1990: the Gini coefficient in the UK rose by more than 1 percentage point a year. Overall, there was an increase in the Gini coefficient of 10 percentage points. None of the existing theories can explain why the UK was twice as severely affected as the US.[36] Even if part of the rise was reversing the fall in the 1970s, the 1990 figure was 6.7 points higher than the highest value recorded in the 1960s.

The second significant feature of the UK's data is that the 1990s did not show a continuing upward trend: the 2000 Gini coefficient is the same as that for 1990. So, contrary to the U-turn hypothesis, we have an episode of rising inequality in the 1980s, not a continuing upward trend. Moreover, in contrast to the US, the Gini coefficient for the UK has leveled off in the past 15 years: the figure for 2005 is below that for 1990 (Atkinson 2007, p 6). In other words, despite the similarities between these two countries, income inequality in the UK almost doubled compared to the US during the 1984 to 1990 period, showing a rather episodic rise. Thereafter, contrary to the US, inequality levels in the UK remained stable or decreased.

33. According to the Bureau of Economic Analysis statistics.

34. According to the Current Population Survey series for families of two or more people.

35. See Atkinson (2003, p. 483 and 486).

36. For Atkinson (2003) any theory must be able to explain this trend.

Hence, it seems rather problematic to indicate a common external process as the cause of these puzzling and contradictory inequality patterns. The most plausible explanation for the UK trend is the public policy and welfare reforms of the respective governments for each period. In particular, the 1980s was dominated by the Thatcher government which aimed to reduce welfare support and promoted reforms that decreased the re-distributional character of a number of public policies and taxation. In contrast, during the 1990s there was a change of government, with New Labour taking office in 1997 and aiming to reduce inequalities and to provide at least equality of opportunities.[37]

Turning to Scandinavia, in Sweden inequality of equivalent family incomes decreased considerably from 1967 to 1975, and kept falling, more moderately, until 1981/1982. The trend reversed in the early 1980s. By 1990, inequality was back to the level of 1975, and it continued to rise throughout the 1990s.[38] For the period 1967 to 1975, both transfers and direct taxes contributed to the decrease in inequality in the first period, with the former the major factor (Gustafsson & Palmer 1997). Inequality rose in 1980s due to tax reforms, and increased capital gains in the 1990s. Although a contrast is often drawn between Norway and Sweden, the Norwegian trend is not clear: Bojer (1987) argues that during the period 1970 to 1984 inequality of personal income remained stable, while Ringen (1991) argues the opposite. Nevertheless, in the 1990s there had been a clear rise by 3.3 percentage points from 1990 to 1997 (Atkinson 2003, p. 490).

Lastly, Finland provides enough evidence of a U-turn, even allowing for the break in the series. The Gini coefficient for disposable income for 1966 was 31.8% in 1996, fell to around 20%, and then rose again to 26.6% in 2000 (Atkinson 2003, p. 490). Moreover, from 1993 to 2000, the Gini increased by over 5 percentage points. Overall, the Scandinavian countries provide some evidence of "the great U-turn" thesis. None the less, two important caveats should be noted. First, regarding the downward arm of the "U", there is no clear evidence for Norway and in the case of Sweden much of the analysis rests on the observation for 1967.[39] Second, in the case of the upward arm, it is not clear that there is a continuing trend, while in Sweden and Finland the rise seems to have been concentrated in the 1990s (Atkinson 2007, p. 5).

Overall, the Scandinavian countries provide some evidence of "the great U-turn" thesis

The picture in continental Europe is more unclear with regards to a common inequality trend. In the Netherlands inequality declined during the period 1959 to 1977. A period of stability followed until 1983, when an increase of 3 percentage points can be traced up to 1990 (Atkinson 2007, p 6). However, for the following period (1991 to 1999), inequality remained stable as the Gini coefficients are identical. In this respect, the Netherlands demonstrates a very similar trend to the UK: there was an episode of rising inequality in the 1980s which did not continue into the 1990s (Atkinson 2003, p. 490).

Regarding West Germany,[40] there is some ambiguity in the inequality trends from 1962 to 1973 as the two main data sources provide a contrasting image. The EVS shows a fall in the Gini coefficient of more than 3 percentage points, while the DIW shows a rise for the same period.[41] On the contrary, both sources show an upward trend of less than 3 points from 1988 to 2001. Thus, the "U" is less than clear-cut (Atkinson 2007; 2003). In France, the Gini index of gross income did not vary from 1956 to 1962, fell considerably until 1990, and then was unchanged between 1990 and 1997; the Gini index of equivalent disposable income decreased until 1997, and then stabilised through 2004. In other words, in France income inequality has not shown to date any upward trend (Brandolini & Smeeding 2007, p. 21). Finally, in Italy we observe a significant decrease in inequality of household incomes from the early 1970s until 1982. Although, in the mid-1980s it showed a tendency to grow, a further decline from 1989 to 1991 was soon reversed, and in 1995 the Gini coefficient was back to the value of 1980 (Brandolini 1999, p. 222). Finally, the Gini remained fairly flat from 1993 to 2000 (Atkinson 2007, p 7).

37. For a further analysis of New Labour's positions on inequality, see Orton and Rowlingson (2007).

38. It should be stressed that there is a significant problem of data comparability (Atkinson 2003, p. 488).

39. Official statistics in Sweden start only from 1975 onwards.

40. Examining the trend in inequality in Germany is possible only for the western part of the country, as there are no data for East Germany before the unification of the country in the early 1990s.

41. The main reason for this is the different method of collecting and calculating the data. For a brief discussion see Aktinson (2003, p. 492).

From the above, it is rather difficult to accept both the "inverse U" and the "great U" theses. Although relevant for the Anglo-Saxon countries and some of the Nordic ones, there is no U-turn in continental Europe. In this respect, Atkinson argues that the most suitable single-letter summary for the changes in the individual earnings distribution is a "W" rather than a "U", and links income inequality fluctuations with political developments (2007, p. 12-13):

> The 1930s and 1940s experienced a reduction in wage differentials – called the Great Compression in the US. This was reversed in the 1950s and early 1960s: with the exception of Germany, this 'golden age' saw a rise in earnings dispersion. In the later 1960s, following the events of May 1968 in France and other countries, governments and unions achieved a narrowing of the earnings distribution. The rise in dispersion in recent decades has to be seen in this context.

Another source of data is the OECD (2005). In measuring the inequality trends in Europe it distinguishes three periods. From 1975 to 1985 there is little comparable evidence, and for the countries for which it exists no common trend is observed: in Greece, Finland and Sweden inequality levels declined, while there was an increase in the Netherlands and the UK. From 1985 to 1995 there is a clear trend of increased inequality in Austria, Denmark, Greece, the UK, Finland and Sweden – only France and Ireland demonstrate a slight decrease. These trends continued in the following period (1995 to 2000), with the main difference being that the Netherlands joined France and Ireland in the decreasing camp. The Gini coefficient remained broadly stable in Germany, Italy and Portugal, while it continued to increase in Austria, Denmark, Greece and the UK, showing a much more significant rise in Sweden and Finland. Overall, the OECD reaches a quite interesting conclusion: despite the contrasting trends mentioned above and although most countries have seen a rise in inequality of market income (income before taxes and transfers), the overall pattern has not changed dramatically: low inequality in the Nordic countries and the Netherlands and higher inequality in the Anglo-Saxon and the southern European countries (Pestieau 2006, p. 15).

Focusing on the trend in disposable income inequality, it should be recognised that when comparing the absolute difference between the Gini index for market income and disposable income, the trend in the redistributive impact of tax-and-transfer systems may also vary considerably. However, there is a general pattern suggesting that the redistributive impact of taxes and transfers initially increased and then stabilised or dropped in all countries except for the US, where it remained quite stable over time (but the series starts only in 1979). The UK stands out for having the most dramatic switch of regime, as in the early 1980s it apparently shifted from a situation not too different from the Nordic countries to a model closer to that of the US (Brandolini & Smeeding 2007). It is not possible to infer from this simple measure whether changes in redistribution are the automatic response of a progressive tax-and-benefit system to changes in the distribution of market incomes, or are instead the product of explicit policy choices (Atkinson 2004). However, it is plausible to relate the ideological preferences of the incumbent governments (ie Thacherism in the UK, social democratic governments in Scandinavia) and their economic and public policy of the time.[42]

In any case, Brandolini and Smeeding argue convincingly that a widening of the market income distribution need not result in a drastic increase in the inequality of disposable incomes. Rising levels of redistribution in Finland and Sweden, where policies have been increasingly targeted to the poor, have been more effective in muting increasing market income inequality than have stable but low levels of redistribution in the US – though periods do matter (Brandolini & Smeeding 2007, p. 21-22). Consequently, empirical evidence shows that whatever the market income inequality, the inequality of disposable income is not affected so much by the market as by public policies (tax system, cash and non-cash benefits, benefits in kind etc).

42. For example, Brady and Leicht (2007) argue that right-wing governments significantly influence inequality; for a further analysis see below (p. 20).

4 Explaining levels of inequality: the unintended result of economic and social processes or the outcome of political choices?

If measuring inequality is controversial, establishing causal relationships between variables or processes and levels of inequality is even more contentious. One of the leaders of the anti-globalisation movement, Ignacio Ramonet, argues that "the dramatic advance of globalisation and neoliberalism have been accompanied by an explosive growth in inequality."[43] On the contrary, advocates of globalisation and liberalisation such as Martin Wolf (2005) argue that inequality is decreasing because of the latter. Although globalisation is most times the usual suspect, other variables such as internal structural dynamics (ie the Kuznets curve[44]) or the interdependence of countries (ie the international division of labour), skill-biased technological change, the power of labour unions, the levels of foreign trade and immigration[45] have all been associated with differing levels of inequality.[46] It should be noted that most of these explanations were introduced to explain the sharp rise in income inequality in the US, as in the rest of the world (both at the political and academic level) the debate about inequality is limited.

After briefly discussing the suggested causes of income inequality, the argument we put forward is that the level or trend in disposable income inequality is determined mainly by the political choices of national governments and their respective public policies in taxation, welfare benefits, and the degree of equal access to public services such as education, health and pensions. In other words, national governments are still the ones responsible for the levels of inequality in their respective countries. The more redistributive the taxation and public benefits system and the less market oriented the provision of education, health and pensions (ie users of these services are entitled to free or unlimited access, contrary to a more market-oriented system where users are treated as customers who have to pay for the provision of services) the lower the levels of inequality.

4.1 Existing explanations: merits and shortcomings

The most prominent explanation for current levels of inequality[47] is that there has been a shift in demand away from unskilled towards skilled labour. This is associated with increased competition from newly industrialising countries as a result of globalisation, technical change biased towards skilled labour, or because both of these factors operate in conjunction. The reduced demand for less skilled labour means that, with relative supplies of the two kinds of worker fixed in the short run, in a free labour market there will be a rise in the premium for skilled workers and a decline in the relative wage of unskilled workers (Atkinson 2003, p. 494). Advocates of this hypothesis claim that it explains not only the rising wage dispersion in the US but also the higher unemployment in Europe. This hypothesis has received extended criticism for its assumptions, and it is regarded by some as an oversimplification (Atkinson 2003, p. 495). In a nutshell, critics claim that this hypothesis holds only if we assume two parallel universes with two trading regions (in one case the US and NIC, and in the other Europe and NIC); it does not hold when we examine simultaneously the three trading unions because in each possible scenario only one rich region is affected in terms of wage and trade levels.[48]

Moreover, both parts of this "textbook" hypothesis are problematic even when examined separately. First, according to the Skill-biased Technical Change hypothesis, the source of increasing levels of inequality is the improvement in information and communications technologies (computers, new technologies, sophisticated machinery etc) which raises the productivity of high-skilled workers much more than that

43. Ramonet, I 1998, Le Monde Diplomatique, May.

44. Kuznets was the first author to use income data (US income tabulations) and he put forward the following (highly speculative according to him) theory in order to account for the 1913 to 1948 decline in US income inequality: income inequality should follow and inverse U-shape along the development process, first rising with industrialisation and then declining, as more and more workers join the high productivity sectors of the economy.

45. The combined impact of the last three variables was the source according to Goldin and Margo (1992) for the Great Compression, that is a trend towards more income equality in the US.

46. For a further discussion of the sources of levels of inequality see among others: Atkinson (2003); and Gordon and Becker (2007) for the US.

47. Or the "textbook" explanation (Atkinson 2003).

48. For a detailed explanation see Atkinson (2003, p. 495).

of low-skilled workers. Consequently, the pay gap between these two groups of the labour force, that is, market income inequality, rises. Despite its significant strengths, this hypothesis has received two main criticisms. First, it is time inconsistent as it cannot explain why the sharp rise in investment in information technology in the 1990s was not accompanied by a higher rate of increase in wage inequality – in fact inequality grew faster in the early 1980s. Second, it is almost falsified when we apply it to trends in the wages of workers in the middle of the distribution, which have grown more slowly than the wages of workers at the lower end of the distribution, even though, of the two groups, workers in the middle of the distribution are typically the better educated (Autor, Katz & Kearney 2006; Autor, Levy & Murnane 2003; Gordon & Becker 2007).

The second part of the "textbook" explanation is the globalisation hypothesis – certainly one of the most quoted explanations on the rise in inequality. Its advocates group under the heading of globalisation a number of economic forces which increase inequality. The first is immigration. According to the hypothesis, increased immigration – especially of low-skilled people – means that labour markets have a surplus of workers at the bottom of the distribution. This increases inequality for two main reasons. First, it leads to an increase in the relative size of the low-wage work force (Lerman 1999). Second, it enhances competition between low-skilled workers – not only between immigrants and native born (Borjas 2003; 2006; Borjas & Katz 2005) but also between immigrants themselves as the flow of new workers continues (Ottaviano & Peri 2006). Nevertheless, most of these studies are based on insufficient data and can explain only a very small percent of inequality. What is more, Mishel et al (2006) note that, according to the US CPS data, the unskilled did better in the 1990s than in the 1980s, although the percentage of foreign-born workers doubled in the 1990s, and the CPS 50–10 ratio for all workers declined slightly from 1984 to 2004 despite the increased wave of immigration.[49]

International trade is another aspect of globalisation linked to the rise in inequality. First, increased international trade is said to have reduced the profitability and hence the demand for labour in a number of industries that employ relatively more low-skilled workers (Borjas, Freeman & Katz 1997; Sachs & Shatz 1994). At the same time it has increased the potential markets for other domestic industries, leading to higher demand and thus higher real wages for workers in those industries. Second, trade has diverted investment from domestic facilities to foreign direct investment through the outsourcing abroad of a number of activities – especially low-skilled manufacturing jobs – leading to lower salaries in the remaining companies and thus increasing market income inequality (Bernanke 2007). Again, empirical studies challenge this argument, suggesting that trade-induced job losses and trade in general have had only a marginal effect on the US income distribution (Mishel et al 2006). Finally, if globalisation is indeed the source of more or less inequality around the world, this would imply common patterns of inequality over time and within countries. However, the opposite is true, since there are very few common inequality trends between countries, while their overall comparative ranking has remained the same.

Trade-induced job losses and trade in general have had only a marginal effect on the US income distribution

A related explanation for the rise in US inequality is the Great Compression (Goldin and Margo 1992). This hypothesis claims that inequality patterns can be explained by three covariant factors: the role of the trade unions, trade and immigration. Inequality remained low from 1940 to 1970 due to the rise of unionisation, and the decline of both trade and immigration. By contrast, inequality increased after then because the unions lost their power, while trade and immigration increased. However, as shown above, two of the variables seem not to have had an extensive impact on inequality. Moreover, the significance of the unions is debatable, as empirical evidence[50] shows that the decline of unionisation can explain only a very small part of inequality trends – mainly for male workers.

49. For a detailed discussion of the literature on the impact of immigration on US inequality see Gordon and Becker (2007).

50. See Card et al (2004); Mishel et al (2006).

In addition, scholars studying US inequality have suggested that levels of income inequality are related to the level of the minimum wage. The hypothesis is that the erosion of the real minimum wage after the late 1970s accounts for much of the increase in the 90/10 inequality ratio. Empirical evidence confirms this, not only for the entire labour force, but especially for women (Mishel et al 2006). However, the real value of the minimum wage, adjusted to include state minimum wages that are above the federal level, has been fairly flat in recent years, and so has the proportion of the labour force that is unionised. This suggests that these institutional factors have recently been less important sources of increasing wage inequality than they were in the 1970s and 1980s (Bernanke 2007).

Contrary to the above, many scholars examine not the bottom but the very top end of the distribution.[51] The main focus is on the pay of CEOs, which rose significantly during the last decades, and on the rise of "superstars", that is, a small number of the most gifted singers, actors, celebrities and athletes (Rosen 1981). Recent examples are the golf player Tiger Woods ($100m per year), Formula One driver Michael Schumacher ($80m per year) and, further down the income scale, David Beckham ($25m per year). There is a fierce debate as to why the CEOs' pay rise occurred, but it is definitely a reason for the increase in income inequality. For the so-called "superstars" issue, there seems to be a consensus behind the SBTC and globalisation explanations. In this view, superstars have enormously benefited from recent technological innovations (cable and satellite TV, internet, downloadable music, videos and DVDs) and globalisation, because they can reach a global audience with the same effort as before.

In one of the most thorough studies of top incomes,[52] Atkinson and Piketty (2007) argue that, contrary to Kuznets' U-shape explanation of declining inequality during the first half of the 20th century, inequality declined "solely due to the fall in top capital incomes [...] For the most part, income inequality dropped because capital owners incurred severe shocks to their capital holding during the 1914 to 1945 period (destruction, inflation, bankruptcies)" (Ibid 2007, p. 10).[53] With regards to the non-recovery of top capital incomes during the post-1945 period, the authors suggest that the 1914 to 1945 capital shocks had a permanent impact because of the introduction of high income and estate tax progressivity (the latter was almost non-existent prior to 1914, and as a result top income rates increased massively during the period 1914 to 1945). This made it impossible for top capital holders to fully recover. Indeed, Piketty (2003; 2007) finds a significant long-run impact of tax progressivity on wealth concentration – significant enough to explain the magnitude of the observed changes.

Furthermore, in all countries top-income inequality declined for the most part during the period from 1914 to 1945, and according to the authors most of the decline seems to be due to the fall in top capital incomes. The different trends in top-income inequality levels across countries support Atkinson and Piketty's capital shock and progressive taxation explanation: the 1914 to 1945 drop was larger in countries that were strongly hit by the war (eg France and Germany) than in the US, while there was no drop at all in countries relatively immune to the war's impact (eg Switzerland). Moreover, wealth concentration seems to have better recovered during the post-war period in countries with less tax progressivity (especially estate tax) such as Germany. Although every country has its own particularities, there is an important distinction to be made between rich countries for the post-1970 period. On the one hand we have the Anglo-Saxon block[54] where there was a sudden rise in top wages and top income shares – with the US being the outlier with an enormous increase.[55] On the other hand, in the continental European countries[56] top income shares remained fairly stable (Ibid 2007, p. 11-12).

4.2 Inequality as a political choice

However, one should not exaggerate the importance of capital income on overall patterns of inequality. Albeit important for top incomes, for the mass of the population earned income is the single most important element (Atkinson 2007, p. 10). In this respect, inequality trends and their causes are interlinked. From the

51. For one of the most detailed studies regarding the historic development of the trends of the top income distribution see Atkinson and Piketty (2007); for a succinct discussion of the contemporary debate (superstars, CEOs), see among others Gordon and Becker (2007, part 6, p. 16-25).

52. The authors construct for their study an impressive database covering over 50 years and 20 countries. In this paper the discussion of their results is confined to France, the UK, the US, Canada, Australia, New Zealand, Germany, the Netherlands, Switzerland and Ireland. This database has both advantages and drawbacks. In particular, according to the authors, it has the following advantages: use of the same raw data sources for all countries and applying the same methodology to derive the final series; the series are typically annual and cover a long run of years; and the data are mostly broken down by income source (mainly labour income and capital income). However, this database also has important shortcomings since its long-run series is confined to top income and wealth shares thus containing little information about bottom segments of the distribution – a crucial part of inequality.

53. The authors link this with the two world wars and the Great Depression.

54. Canada, Ireland, New Zealand, the UK and the US constitute this group of countries.

55. The share of the top 1% doubled in the US (and the UK).

56. France, Germany and the Netherlands constitute this group of countries.

analysis in section 3 and especially in section 3.2, we see that the inequality trends in the countries under study do not follow a common pattern. Even though there has been a "U-turn" in Anglo-Saxon countries and some of the Nordics, this is not true for the rest of the European countries. Likewise, top-income inequality increased significantly in the former group forming a U-trend, contrary to the latter where it remained fairly stable. Thus, the most adequate explanation cannot be a common external or internal process such as globalisation or de-industrialisation; some countries experienced an increase in inequality while others did not.

Moreover, instead of a "U"-, individual earnings demonstrate a "W"-shaped pattern over time. In particular, inequality decreased during the 1930s and 1940s, increased during the 1950s and 1960s, decreased after the early 1970s and increased after the mid-1980s. Thus, if rising earnings dispersion started in 1950 rather than 1980, then we may have to consider other explanations than those currently in favour, namely the introduction of information and communication technologies and the impact of globalisation (Atkinson 2007, p. 13). Moreover, the reversal in the late 1960s and 1970s means that we have to reconsider the role of government intervention, including incomes policies (Ibid). Finally, despite the variations in inequality levels, the ranking of most countries with regard to inequality levels did not change over time, posing some crucial constraints on the globalisation thesis or any other hypothesis that implies that inequality levels are determined by externally imposed variables that bypass the nation state.

The above can explain why inequality in the US increased more than in Europe. Although Europe faces the same globalisation and immigration pressures – if not more – through the successive EU enlargements, the single market programme and the EMU, both market and disposable income inequality patterns are lower. With regards to market income inequality, the "superstars" phenomenon is much more muted (for example, Hollywood is still unique in size and wealth compared to the movie industry in Europe), while CEOs are not only fewer but are also not paid as much as in the US. Nevertheless, the biggest difference seems to be the European social model: adequate minimum wages, stronger unionisation and salaries that are more centrally or sector defined. These are the main reasons why Europe is more equal than the US.

Regarding disposable income inequality within the European countries, as was discussed above[57] the different public policy choices in taxation, welfare provision, education and health, oriented to a nationally defined social market economy, provide the most reliable account for the different levels of inequality. This becomes evident when we analyse the significant rise in the UK's level of inequality during the 1980s – a rise much sharper than the one in the US. Since the "usual suspects", such as globalisation, different skills or immigration were more or less the same for all countries, it seems that the most plausible explanation for the sharp increase in inequality was the political preferences, policy choices and reforms of the Thatcher government. Thus, inequality is principally an issue that is determined by national government policies. The more redistributive the taxation and public benefits system and the more accessible the provision of education, health and social protection, the lower the levels of inequality. In other words, it is a matter of public policy, not of external or internal economic and societal processes that are beyond the control of policymakers.

In this respect, the study of Brady and Leicht (2007) regarding the relationship between income inequality and the ideology of the incumbent government is very illuminating. Using the LIS data, the authors examine the impact of right-wing party power on three measures[58] of disposable income inequality for 16 affluent western democracies[59] from 1969 to 2000. According to their findings, the cumulative effect of right-wing party power significantly increases inequality through three main mechanisms: legislative action, administrative office-holding and ideological influence. In addition, the authors find that left-wing party power has less influence than the right on the Gini coefficient and the 90/50 ratio, but a larger influence on the 90/10 ratio, whereas union density is insignificant after controlling for right-wing party power. Moreover, they find that right-wing parties became more influential after 1989, while left-wing parties became less effective. Finally, the authors argue that their results do not depend on the inclusion of the US in the sample.

57. p. 12-13; 19.

58. The Gini coefficient, the 90/10 and the 90/50 ratios of the income distribution

59. The countries are the following: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Norway, Sweden, Switzerland, the UK and the US

5 Policy recommendations

Contrary to the emerging conservative response to globalisation, which in some countries takes the form of economic nationalism and protectionism with a revival of the state's role in the management of the economy,[60] and in others resistance to immigration[61] or an anti-modernist reversion to family traditionalism,[62] the above analysis shows a more efficient and progressive way to reduce inequality: by enhancing existing policy measures and introducing new ones to combat inequality. We suggest a number of policy recommendations that may contribute to reducing disposable income inequality.

First, the tax system should be made more progressive. Although wealth (or success in the market) should not be penalised, the tax system should be the tool for redistributing resources from the rich to the poor. In addition, there should be more tax relief for the disadvantaged, single-parent families and the working poor. National governments should not be hesitant to implement a more redistributive tax system. Hence, governments should not introduce tax systems that increase inequality, such as the flat-tax system, or tax relief for inheritance and big properties.

Second, education has to be the first priority for policymakers. Education should not be confined to the traditional course of schooling from kindergarten through high school and into university. Indeed, substantial economic and social benefits may result from any form of training that helps individuals acquire economically and socially useful skills, including not only formal education, but also on-the-job training, coursework at community colleges and vocational schools, extension courses, online education and training in computer and financial literacy.

Substantial economic and social benefits may result from any form of training, not only formal education

In this respect, national governments should not leave everything to market incentives and mechanisms. Rather, they should enhance the quality and accessibility of public education by providing additional help to the less privileged who find it difficult to continue studying. These include young people from poor households, workers at the bottom of the distribution and older people who want to continue to work or re-enter the labour market. Moreover, governments should enhance existing financial incentives such as tax cuts to employers, in order to provide more training to the unemployed and the working poor. A substantial body of research demonstrates that investing in education and training pays high rates of return both to individuals and to the society at large (Acemoglu & Angrist 2001; Becker 1964; Card 1999; Topel 2004). It also suggests that workers with more education are better positioned to adapt to changing demands in the workplace. In essence, a strong educational system can prevent or at least contain the impact of recession.

However, education must be accompanied by an efficient labour market, which should provide easy access to the unemployed and enough protection to the currently employed. In this respect, we argue in favour of the new EU employment policy direction in regards to labour markets: flexicurity.[63] Flexicurity is advantageous in many ways as it promotes high employment rates and low perceptions of insecurity, it offers limited legal and contractual "hiring-and-firing" protections, it guarantees generous replacement ratios for the unemployed and it depends on active labour market policies, based on "rights and responsibilities". In this respect, flexicurity combines education and labour market policy in an unprecedented fashion.

60. The current French President Nicolas Sarkozy can be considered as one advocate of this view.

61. This view is becoming very popular in countries in continental Europe such as Germany, Austria and France, whereas it has also emerged in the UK with many politicians demanding tighter controls on immigration.

62. As was recently advocated by the leader of UK's Conservative party David Cameron at the Conservative's last conference (see for example http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2007/10/04/ntory104.xml).

63. The European Commission defines flexicurity as having four components. First, flexible and secure contractual arrangements – from both the perspective of the employer and employee; flexibility about more than "hire and fire": internal flexibility is as important as external. Second, active labour market policies that promote transition security. Third, reliable and responsive lifelong learning systems that enhance employability and raise productivity. Finally, modern social security systems that combine adequate income support with the need to promote labour market mobility.

Hence, flexicurity focuses simultaneously on two crucial problems: unemployment and educational "gaps", which are both very important for tackling inequality. In essence, changing to a flexicurity approach in order to boost employment does not cause more social problems, as a mere move towards more flexible labour markets would, since the labour force is constantly trained.

Third, policymakers should not confine themselves to their national cell. The European Union offers a number of funding mechanisms for the implementation of flexicurity and vocational training, such as the European social fund, its regional and cohesion policy financial programs, and more recently through the globalisation fund which supports nation states in financing labour transitions due to the relocation of economic activity.

Fourth, a more active and inclusive immigration policy should be implemented. As immigration flows are a continuous part of our modern world, progressives cannot afford to lie back and let the forces of the free market to do the job of integration for them. In this respect, flexicurity can be used as an additional integration policy: if immigrants arrive in a country which has adopted the flexicurity model, instead of social benefits they receive education and pressure to be employed. Consequently, their inclusion in the labour market is made much easier than it would by just "arriving" in a country and trying to enter the labour market either as cheap labour, or working in the unofficial economy with no social protection.

Finally, governments should not only provide easier access to public housing and health but also more public investment in order to improve existing services. As argued above, provision of benefits in goods have a significant egalitarian impact. If people at the bottom and middle part of the income distribution do not have to spend a lot for these goods, then inequality of disposable income will inevitably decrease.

6 Conclusion

Inequality is a significant problem which should not be neglected by policymakers. Although there are significant challenges in measuring it, inequality has risen dramatically in the last decades, mostly in the US and the UK, while it has remained stable throughout Europe. Nevertheless, policymakers should not be at ease: unless the European social model is strengthened, inequality will not be reduced. This can be done by a stronger provision of educational and welfare services accompanied with a labour market based on the Danish model of flexicurity.

References

Acemoglu, D & Angrist, J 2001, 'How large are human capital externalities? Evidence from compulsory schooling laws', in BS Bernanke & K Rogoff, (eds.), *NBER Macroeconomics Annual*, Cambridge, Mass, MIT Press, pp. 9–59

Alcock, P 1993, *Understanding Poverty*, Basingstoke, Macmillan Press.

Atkinson, AB & Piketty, T (eds.) 2007, *Top incomes over the 20th century: a contrast between European and English-speaking countries*, New York, Oxford, Oxford University Press.

Atkinson, AB 2007, 'Distribution and growth in Europe – the empirical picture: a long-run view of the distribution of income', paper presented at the DG ECFIN annual research conference, Brussels.

Atkinson, AB 2003, 'Income inequality in OECD countries: data and explanations', *CESifo Economic Studies*, vol. 49, no. 4, pp. 479-513.

Atkinson, AB 1997, 'Bringing income distribution in from the cold', *Economic Journal*, vol. 107, pp. 297-321.

Atkinson, AB, Rainwater, L & Smeeding, TM 1995, 'Income distribution in OECD countries: evidence from the Luxembourg Income Study (LIS)', *Social Policy Studies*, Paris, OECD, vol. 18.

Autor, DH, Katz, LF & Kearney, MS 2006, 'The polarisation of the labor market', *American Economic Review*, vol. 96 (May), pp. 189–94.

Autor, DH, Levy, F & Murnane, RJ 2003, 'The skill content of recent technological change: an empirical exploration', *Quarterly Journal of Economics*, vol. 118 (November), pp. 1279–1333.

Becker, G 1964, *Human capital: a theoretical and empirical analysis with special reference to education*, New York, National Bureau of Economic Research.

Bernanke, B 2007, 'Remarks by Chairman Ben S Bernanke', Greater Omaha Chamber of Commerce, Omaha, Nebraska, 6 February.

Barry, B 1998, 'Social exclusion, social isolation and the distribution of income', Centre for Analysis of Social Exclusion paper, no. 12.

Blanden, J, Gregg, P & Machin, S 2005, 'Intergenerational mobility in Europe and north America', Centre for Economic Performance, London School of Economics.

Bojer, H 1987, 'Personlig inntektsfordeling i Norge 1970–1984', *Tidsskrif for Sammfunnsforskning*.

Borjas, GJ 2006, 'Native internal migration and the labor market impact of immigration', *Journal of Human Resources*, vol. 41, no. 2, pp. 221-58.

Borjas, GJ & Katz, LF 2005, 'The evolution of the Mexican-born workforce in the United States', NBER working paper, no. 11281.

Borjas, GJ 2003, 'The labor demand curve is downward sloping: re-examining the impact of immigration on the labor market', *Quarterly Journal of Economics*, vol. 118, no. 4, pp. 1335-74.

Borjas, GJ, Freeman, RB & Katz, LF 1997, 'How much do immigrants and trade affect labor market outcomes?', *Brookings Papers on Economic Activity*, vol. 1, pp. 1–67.

Brandolini, A 1999, 'The distribution of personal income in post-war Italy: source description, data quality, and the time pattern of income inequality', *Giornale degli Economisti e Annali di Economia*, vol. 58, pp. 183–239.

Brandolini, A & Smeeding, T 2007, 'Inequality patterns in western-type democracies: cross-country differences and time changes', Luxembourg Income Study working paper, no. 458.

Brady, D & Leicht, KT 2007, 'Party to inequality: right party power and income inequality in affluent western democracies', Luxembourg Income Study working paper, no. 460.

Callinicos, A 2000, *Equality*, Cambridge, Polity Press.

Canberra Group 2001, *Expert group on household income statistics: final report and recommendations*, Ottawa, Canada Statistics, Canada.

Card, D, Lemieux, T & Riddell, C 2004, 'Unions and wage inequality', *Journal of Labor Research*, vol. 25, pp. 519-562.

Card, D 1999, 'The causal effect of education on earnings', in O Ashenfelter & D Card (eds.), *Handbook of labor economics*, New York, Elsevier, vol. 3a, pp. 1801-1863.

Cohen G 1993, 'Equality of what? On welfare, goods and capabilities', in M Nussbaum and A Sen (eds.), *The quality of life*, Oxford, Oxford University Press.

Crosland, A 1956, *The future of socialism*, London, Cape.

Freeman, RB 2005, 'What do unions do? The 2004 M-Brane Stringtwister edition', NBER working paper, no. 11410.

Garfinkel, IL, Rainwater, & TM Smeeding 2005, 'Equal opportunities for children: social welfare expenditures in the English-speaking countries and western Europe', *Focus*, vol. 23, pp. 16-25.

Goldin, C & Margo, RA 1992, 'The great compression: the wage structure in the United States at mid-century,' *Quarterly Journal of Economics*, vol. 107, pp. 1-34.

Gordon, RJ & Decker ID 2007, 'Unresolved issues in the rise of American inequality', *Proceedings of the Brookings panel on economic activity*, Washington DC, pp. 1-44.

Higher Education Funding Council for England 2005, *Young participation in higher education*, Bristol, Higher Education Funding Council for England.

Immervoll, H, Hevy, H, Lietz, H, Mantovani, D, O'Donoghue, C, Sutherland, H & Verbist, G 2005, 'Household incomes and redistribution in the European Union: quantifying the equalising properties of taxes and benefits', EUROMOD working paper, no. EM9/05.

Kuznets, S 1955, 'Economic growth and income inequality', *American Economic Review*, vol. 45, pp. 1-28.

Lefebvre, M 2007, 'The redistributive effects of pension systems in Europe: a survey of evidence', Luxembourg Income Study working paper, no. 457.

Lerman, RI 1999, 'US wage-inequality trends and recent immigration', *American Economic Review*, vol. 89, pp. 23–28.

McKay, S & Kempson, E 2003, 'Savings and life events', DWP research report 194, Leeds, Corporate Document Services.

Mishel, L, Bernstein, J & Allegretto, S 2006, *The State of Working America 2006/2007*, ILR Press.

OECD 2005, 'Income distribution and poverty in OECD countries in the second half of the 1990s', Paris, OECD.

Oppenheim, C 1993, *Poverty: the facts*, London, CPAG.

Orton, M & Rowlingson, K 2007, 'A problem of riches: towards a new social policy research agenda on the distribution of economic resources', *Journal of Social Policy*, vol. 36, no. 1, pp. 59-78.

Ottaviano, GIP & Peri, G 2006, 'Rethinking the effects of immigration on wages', NBER working paper, no. W12497.

Pestieau, P 2006, *The welfare state in the European Union*, Oxford University Press.

Piketty, T 2007, 'Income, wage, and wealth inequality in France, 1901-98', in AB Atkinson & T Piketty (eds.) 2007, *Top incomes over the twentieth century: a contrast between European and English-speaking countries*, New York, Oxford, Oxford University Press.

Piketty, T 2003, 'Income inequality in the United States, 1913-1998', *Quarterly Journal of Economics*, vol. 118, pp. 1-39.

Ringen, S 1991, 'Households, standard of living, and inequality', *Review of Income and Wealth*, vol. 37, pp. 1–13.

Schwabish, J, Smeeding, TM & Osberg, L 2006, 'Income distribution and social expenditures: a cross-national perspective', in DB Papadimitriou (ed.), *The distributional effects of government spending and taxation*, Northampton, MA, Edward Elgar Publishing.

Smeeding, T 2006, 'Poor people in rich nations: the United States in comparative perspective', *Journal of Economic Perspectives*, vol. 20, no. 1, pp. 69-90.

Smeeding, TM 2004, 'Twenty years of research on income inequality, poverty, and redistribution in the developed world: introduction and overview', *Socio-Economic Review*, vol. 2, pp. 149-163.

Smeeding, TM 2002, 'Globalisation, inequality, and the rich countries of the G-20: evidence from the Luxembourg Income Study (LIS)', in D Gruen, T O'Brien & J Lawson (eds.), *Globalisation, living standards, and inequality, recent progress and continuing challenges*, Australia, JS McMillian Printing Group.

Smeeding, TM & Munzi, T 2005, 'Poverty and inequality: Greece and Mediterranean Europe in comparative perspective', Luxembourg Income Study working paper, no. 421.

Sinfield, A 2004, 'Preventing poverty in market societies', paper presented at the ESPAnet annual conference 'European social policy: meeting the needs of a new Europe', Oxford.

Topel, R 2004, 'The private and social values of education', *Proceedings of the Federal Reserve Bank of Cleveland research conference*, Cleveland, pp. 47–57.

Wilkinson, R 2005, *The impact of inequality*, London, Routledge.

Wolf, M 2005, *Why globalisation works*, New Haven, CT, London, Yale Nota Bene.