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Income Inequalities in Europe

A Report for the Council of Europe Committee on Social Affairs, Health and Sustainable Development

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Introduction

Inequality in the distribution of income and wealth among individuals has now come to the fore as a core concern across Europe and the industrialised world. This reflects the fact that inequality has been rising in many countries, and that this is seen as undermining economic growth and ‘squeezing’ middle and lower income households, as well as exacerbating social ‘bads’ such as health inequalities, undermining social solidarity and trust, and fuelling the rise of populism.

This report sets out key patterns and trends with respect to income inequality in European countries, also referring to what is known about the distribution of wealth. It then describes the main drivers of increasing income inequality over recent decades, and the impact of the financial and economic crisis from 2008 onwards. The channels through which increasing inequality may impact on economic and social outcomes, and the evidence on the strength of these effects across different domains, including social cohesion and social rights, is then discussed. Finally, the implications for how societies seek to address income inequality are brought out.

Income Inequalities in Europe: Patterns and Trends

We draw here on data from a variety of sources to capture patterns and trends in income inequality over recent decades, going back as close to 1980 as the data allow in order to see the longer-run trends up to the onset of the financial and economic crisis in 2007-08, and then focusing on the impact of the Great Recession. Income inequality is captured first by the most commonly-used summary measure, the Gini coefficient, which reflects income differences across the distribution and ranges from 0, indicating no inequality, up to 1 which indicates maximum inequality. Different data sources and databases on income distribution (notably those brought together by the OECD and the Luxembourg Income Study) cover different periods and do not always show the same picture over time for a given country. Here a judgement has been made about the most suitable source to draw on for current purposes for each country, with the data sources and the approach adopted noted in the appendix. The income concept employed, as is usual, is equivalised disposable income – in other words, income from the market plus cash transfers minus direct taxes (including employee social insurance contributions), adjusted for differences in household size to take the greater needs of larger households into account.

Table 1 shows the Gini coefficient inequality measure around 1980 (or as close as possible) and 2007 for 28 European countries. Thinking in terms of widely-employed clusters or groupings of European countries, relatively low levels of income inequality have long been seen as a defining feature of the Nordic countries. Countries categorised as ‘liberal’ in terms of their welfare regime such as the United Kingdom (UK) and Ireland, as well as ‘corporatist’ countries such as France, Germany and Belgium, were seen as having levels of inequality higher than the Nordic countries, but lower than ‘Southern/Mediterranean’ countries such as Italy, Portugal, Spain and Greece. The broad pattern of Gini coefficients around or after 1980 shown in Table 1 confirms this traditional picture in broad terms, as well as the relatively low inequality levels in the countries that were then part of the Soviet bloc and are covered by the data sources employed here.

Looking at what happened to inequality from the early 1980s up to the economic crisis, the most common pattern is rising inequality. However, there are countries where inequality was stable (such as France, Italy and Switzerland) and ones where it declined (such as Greece and Portugal). Furthermore, among those where inequality rose, the scale of that increase varied widely: for some it was relatively modest, whereas for others the Gini coefficient rose markedly. The most substantial increases were for the Baltic countries, Sweden and the UK, with the Gini going up by between 50-60% in the former and 40-45% in the latter. As pointed out in the overviews presented in Tóth (2014) and Förster and Tóth (2015), there was some tendency for inequality to fall or remain stable where it was initially relatively high, while some of the larger increases were in countries which had relatively low levels at the outset of the period. This meant that some degree of convergence in inequality levels was observed. They also highlight that if one looks at the evolution of inequality from year to year, in some countries inequality rose in a reasonably consistent fashion over the period but for others it was more concentrated in discrete ‘episodes’.

These features of the longer-term evolution of inequality across European countries have important implications for understanding the driving forces, to which we shall return shortly. First, though, the impact that the economic crisis from 2007-2008 has had on inequality is examined.

Table 1: Income Inequality in Europe from about 1980 to the Crisis: Gini Coefficient Summary Indicator

	Closest year to 1980	2007	Change
Austria	0.24	0.26	+0.02
Belgium	0.22	0.25	+0.03
Bulgaria	0.24	0.33	+0.11
Czech Republic	0.21	0.23	+0.02
Denmark	0.26	0.29	+0.03
Estonia	0.23	0.31	+0.08
Finland	0.21	0.27	+0.06
France	0.29	0.29	-
Germany	0.24	0.29	+0.05
Greece	0.31	0.29	-0.02
Hungary	0.21	0.28	+0.07
Ireland	0.33	0.30	-0.03
Italy	0.31	0.30	-0.01
Latvia	0.25	0.37	+0.12
Lithuania	0.22	0.35	+0.13
Luxembourg	0.23	0.27	+0.04
Netherlands	0.25	0.28	+0.03
Norway	0.22	0.24	+0.02
Poland	0.24	0.31	+0.07
Portugal	0.39	0.36	-0.03
Romania	0.23	0.35	+0.12
Slovak Republic	0.21	0.24	+0.03
Slovenia	0.24	0.23	-0.01
Spain	0.32	0.31	-0.01
Sweden	0.20	0.29	+0.09
Switzerland	0.31	0.30	-0.01
United Kingdom	0.26	0.36	+1.0

Sources: See Appendix

Table 2 shows how the Gini coefficient changed through the crisis up to recently, for 31 European countries. The striking feature is that inequality, measured in this fashion, went down or was stable as often as it increased. Even among the countries worst hit by the crisis in terms of GDP per head and average household income, some saw inequality rise markedly but others (for example Ireland and Portugal) did not. In-depth studies of the impact of recession on income inequality (for example Jenkins et al, 2013) highlight the complex channels through which incomes from different sources (notably earnings, self-employment income and social protection transfers) are affected. This brings out that the impact on overall inequality depends on how profits are affected, on how much unemployment rises and how that affects households across the income distribution, and on the response of the tax and transfer system, both in terms of automatic 'stabilisers' and discretionary policy choices in response to increasing demands on the system and fiscal deficits. The effects of the Great Recession on absolute income levels, deprivation, poverty and social exclusion can be captured by a variety of other indicators: focusing purely on the distribution rather than the level of incomes, although, the recession has had varying effects rather than simply or consistently reinforced previous trends towards increasing inequality.

Table 2: Income Inequality through the crisis: Change in Gini Coefficient 2008-2015

	Change
Austria	-0.01
Belgium	-0.01
Bulgaria	+0.01
Croatia	-0.01
Cyprus	+0.05
Czech Republic	-
Denmark	+0.02*
Estonia	+0.04*
Finland	-0.01
France	-0.01*
Germany	-
Greece	+0.01
Hungary	+0.03
Iceland	-0.04
Ireland	+0.01
Italy	+0.01
Latvia	-0.02
Lithuania	+0.03
Luxembourg	+0.01
Malta	-
Netherlands	-0.01
Norway	-0.01
Poland	-0.01
Portugal	-0.02
Romania	+0.02
Slovak Republic	-
Slovenia	+0.01
Spain	+0.02
Sweden	+0.01
Switzerland	-0.02*
United Kingdom	-0.02*

* = break in series
Source: See Appendix

So far we have been concerned with inequality across the entire distribution. However, in the debate about rising inequality a great deal of attention has focused on what has been happening at the very top of the distribution, in terms of the growing share of total income going to the top 1% or even the top 0.1%. This is most pronounced in the case of the United States of America (USA), where the share of gross (i.e. pre-tax) income going to the top 1% of tax units rose from around 1980 to before the crisis; after dipping in the first few years of the crisis it has since recovered and appears to be on the rise again. The data revealing these trends in top incomes come from analysis of tax data rather than the household surveys that are (mostly) used to track inequality across the entire distribution, and such estimates are available only for a minority of European countries. (A brief discussion of the data is again confined to the appendix). The available estimates, presented in Table 3, show that while top income shares rose markedly from around 1980 to before the Crisis in some European countries, notably Germany, Finland, Ireland, Sweden and the UK, they were relatively stable in some others such as Denmark, France and Spain. Estimates are only available for some of these showing what happened through the crisis, and these generally show either stability or – especially in the UK – some decline in top income shares, reflecting the impact on profits, top executive reimbursement, and the financial sector in particular.

Table 3: Top 1% Shares in European Countries, 1990-2008

	1990	2008	Change
Denmark	5.47	6.05	0.58
Finland	5.83	8.50	2.67
France	8.23	8.51	0.28
Germany	10.52	13.89	3.37
Ireland	6.64	10.48	3.84
Italy	7.78	9.66	1.88
Netherlands	5.56	6.76	1.2
Norway	4.28	7.70	3.42
Portugal	7.21	9.77	2.56
Spain	8.37	8.74	0.37
Sweden	4.38	7.09	2.71
Switzerland	8.60	10.96	2.36
United Kingdom	9.80	15.44	5.64

Sources: See Appendix

Alongside inequality in income, increasing attention has also been paid to the distribution of wealth among households and whether that has been growing – especially following the publication in English of Thomas Piketty's *Capital in the 21st Century*, which highlighted what he sees as the return of 'patrimonial capitalism'. The evidence about the distribution of wealth among persons is more limited than for income, but has been improving in recent years, including via new households surveys of assets and debts coordinated by the European Central Bank, and compilations brought together by the OECD and the Luxembourg Wealth Study. This has allowed for more meaningful comparisons across European countries, which suggest that the distribution of wealth is substantially more unequal than that of income. These show, for example, that the share of total net wealth going to the top 10% is about 60% in Austria, Germany and the Netherlands, about 50% in France, Norway and Portugal, about 45% in Belgium, Finland, Italy, Spain and the UK, and about 40% in Greece.

While such comparisons at a point in time are now more possible, if still only for a limited set of countries, the extent to which change over time in wealth inequality can be measured consistently is even more limited. The available evidence does not suggest, however, that the pronounced increase in wealth inequality seen over recent decades in the USA, and much-commented on there, has been the general experience. There appears to have been some increase in the share of wealth going to the top since the late 1980s in Finland, Italy and the UK, but not for Germany, the Netherlands, Norway or Sweden. As far as the impact of the crisis and recession is concerned, these would be expected to have a marked immediate effect on the value of different assets, including housing and shares, but the pattern across countries appears quite varied, with some increase in inequality in the distribution of wealth in Italy and the Netherlands but little or none in the case of the UK.

What Has Been Driving Income Inequalities in Europe?

The upward trend in income inequality in many European countries over recent decades – as well as in other OECD countries such as Australia, Canada, New Zealand and most strikingly the USA – has given rise to a substantial research literature seeking to understand the underlying driving forces. Research by the OECD has been particularly influential in providing a comparative perspective covering its member countries (see OECD 2008, 2011, 2015), and the research carried out under the large-scale Growing Inequalities' Impacts (GINI) research project funded by the European Union also investigated these driving forces for each of 30 European countries and comparatively (see Salverda et al, and Nolan et al, 2014). Other national and comparative studies, primarily from an economic perspective but also in sociology and political science, have sought to add to knowledge on this topic as it has come to be recognised as a defining feature of recent decades in the industrialised countries.

This research shows, in summary, that increasing inequality in market incomes accruing to households has played the central role – that is, income from employment, self-employment, investments and private pensions, before transfers or taxes are taken into account. This in turn reflects in the first instance increases in the dispersion in individual earnings among employees, seen in a substantial number of countries. A widening in the economic returns to education and skills, notably between those with some third-level education with those who did no progress beyond school, has been widespread. At the same time a 'hollowing-out' of the occupational structure, with some routine jobs around the middle of the earnings distribution shrinking or disappearing, has been seen in a number of countries.

These changes in the shape of the individual earnings distribution are widely seen to have been very significantly affected by the combination of globalisation and technology. Globalisation, and in particular the entry of China into the global trading system, has opened up rich country manufacturing in particular to intense competition from emerging economies with lower labour costs, while also making capital much more mobile across borders. Firms are much more 'footloose', willing and able to shift production to where costs are lower, and outsourcing of production has proceeded apace. At the same time, technological advances, notably in information and communication technology, both meant that some jobs could be dispensed with entirely and that global supply chains could be organised in such a way that other jobs formerly embedded in the rich countries could be outsourced much more easily. Studies differ in the weight assigned to globalisation versus technological change, and views in the research literature have fluctuated over time about which has been more important. Given the extent to which they interact, with one enabling and reinforcing the other, it is not surprising that their effects have proved very difficult to disentangle.

It is also important to stress that neither globalisation nor technological change are to be properly understood as external, exogenous drivers unrelated to the institutional and policy context in which they occur. Globalisation itself was enabled by a set of changes in global trading 'rules of the game', as well as in the way finance and capital flows were regulated; technology change, as Atkinson (2015) and Mazucatto (2015) emphasise, does not occur in a vacuum, but instead is fundamentally influenced by state action both directly and indirectly. In a similar vein, globalisation and technology were often accompanied by de-regulation in the labour market, and served to reinforce other factors shifting the balance from labour to capital, including declining union power. Policies with respect to minimum wages, such as non-indexation as prices rose over time, together with changes in employment protection etc., sometimes help to explain why low earnings became more prevalent. At the same time, the way top executives are rewarded also changed markedly, with a much greater emphasis on performance-related pay and share options, resulting in a remarkable ballooning of the ratio of top to median or average pay – spreading more rapidly across countries in a context where mobility had increased. The expanded role of finance both facilitated those trends and contributed directly to the growth in top incomes, with a substantial proportion of top earners working in that sector.

The way such trends in earnings of individual employees impact on the distribution of income among households depends on participation rates and employment patterns at the household level. The increasing role of women in the paid labour force has been a major trend over the period in many countries, and for the most part this has served to cushion household incomes from the effects of increasing dispersion among individuals. (This is despite concern about the impact of increased "assortative matching", whereby those with high levels of education and earnings capacity are more likely to have similarly-advantaged partners.) While much less important than earnings, income from self-employment and from capital (in the form of rent, interest and dividends) constitute a significant share of total household income. These have also contributed to increasing inequality, having grown in importance over time and become more unequally distributed across households.

Finally, and crucially, the redistributive capacity of the state through cash transfers and direct taxes also often declined over the decades preceding the crisis, and direct redistribution has not been able to fully offset the increases in market income inequality. This reflects on the one hand the ways in which social protection systems evolved, often privileging pensioners at the expense of working-age recipients while struggling to adapt to increasing levels of low pay and in-work poverty and with social safety-nets sometimes weakening. As far as direct taxes are concerned, top income tax rates were generally reduced from the late 1970s and in some cases taxes on income from capital were reduced even more, both because this was seen as encouraging economic activity and because of the competitive pressures this wave created across countries.

Income Inequality, Living Standards, Social Cohesion and Social Rights in Europe

As noted at the outset, the extent of current concerns about rising income and wealth inequality reflect the fact that this is seen as undermining economic growth and ‘squeezing’ middle/lower income households, exacerbating social ‘bads’ such as health inequalities, eroding social solidarity and trust, and fuelling the rise of populism. The channels through which increasing inequality may impact on these economic and social outcomes have been laid out and to some extent explored in the research literature, but the evidence on the strength of such effects across different domains is more limited.

Focusing first on the potential negative effects of inequality on economic growth, the channels through which these might operate have been highlighted by for example Stiglitz, (2012, 2015), Ostry et al, (2014), and Dabla-Norris et al (2015) for the IMF, and OECD, (2014). In the first place, and especially of concern in the context of slow recovery from the financial and economic crisis, growing top income shares may hold back consumer demand (since rich people save more than those on middle and lower incomes). They may also lead to excessive household debt, fuelling debt/boom-bust economic cycles. This combination may in turn make firms more cautious and retard investment. Where middle and lower earners are seeing little or no improvement in their incomes that impedes their capacity to invest in their own education and skill upgrading, reducing output and productivity below what it could be. Higher inequality may also go alongside and reinforce the capacity of firms and their owners that dominate particular sectors to protect their excess profits and stifle competition and innovation. It may also undermine institutions that are critical for sustained growth, both by increasing the voice of the wealthy and undermining trust in those institutions (to which we return below). Finally, and crucially from a long-term perspective, greater inequality may also increase barriers to socio-economic mobility between generations, so that equality of opportunity becomes even more distant and the potential productivity of the workforce of the future is undermined.

Empirical studies by the OECD and IMF as well as academics have investigated some of these specific channels as well as the overall relationship between inequality and growth across countries over time. A widely-cited study carried out by the International Monetary Fund in 2014 concluded that “An increase in the income share of the top 20% drags down growth” (Ostry et al, 2014). Another much-quoted study, by the OECD (Cingano, 2014), concluded that if inequality had not grown from 1980 onwards in many OECD countries, real GDP growth would have been considerably greater. Focusing on the relationship between inequality and real income growth for households (rather than overall GDP growth), Thewissen, Kenworthy, Nolan, Roser and Smeeding (2015) also found that increasing inequality was statistically associated with slower growth in middle and lower incomes (although not accounting for much of the variation in those incomes). While these studies suggest that high/increasing inequality may indeed be associated with lower growth on average, individual countries have displayed different trajectories over time, including some periods where robust income growth went together with increasing inequality; the relationship is contingent on circumstances rather than deterministic.

The empirical evidence on the extent to which high or rising income inequality reduces intergenerational mobility is hotly debated. The idea that intergenerational mobility in earnings is lower in countries with high inequality was highlighted in the so-called ‘Great Gatsby curve’ popularised by Alan Krueger in 2012 when he was Chairman of the US President’s Council of Economic Advisors. This captures what appears to be a common-sense notion that, as Andrews and Leigh (2009) put it, “Moving from rags to riches is harder in more unequal countries”. However, much of the evidence put forward to support it in practice (including the Great Gatsby curve itself) is based on comparing countries at a point in time, to see whether low inequality and high mobility go together and vice versa. Since countries also differ in many other respects than their inequality levels, in ways that could also affect mobility, drawing strong conclusions from such a comparison is problematic. Seeing what happens to mobility as inequality increases (or falls) markedly is a more promising route to identifying its distinct effects, but so far evidence of that sort is scarce and also depends on how mobility is being assessed. (In the UK, for example, there has been an on-going debate between economists who see mobility declining over time as inequality rose and sociologists who do not, but the former focus for the most part on inter-generational mobility in earnings, while the latter concentrate on occupation and social class).

Increasing income inequality is also of concern because it may exacerbate a variety of social ‘ills’ through a wide range of channels, in a manner highlighted in particular by Wilkinson and Pickett’s widely-read book *The Spirit Level* (2009). This argued that physical health, mental health, drug abuse, education, imprisonment, obesity, social mobility, trust and community life, violence, teenage pregnancies, and child well-being are all significantly worse in more than in less unequal rich countries. As already noted, it is difficult to reach strong conclusions about the causal impact of higher inequality *per se* when comparing countries at a point in time, since these also differ in many other respects, including ones with which inequality is correlated that might well affect such outcomes (for example, the reach and generosity of welfare state service provision). Looking at what has happened to these different outcomes as income inequality has increased over time offers another way of teasing out the complex relationships involved (see for example Salverda et al, 2014). This suggests that health gradients/inequalities may indeed increase as inequality rises, but that population health may still improve. Levels of status anxiety are seen by Wilkinson and Pickett as a key mediating variable exacerbated by higher inequality and contributing to poorer physical and mental health; subsequent research suggests this may be related to inequality, though perhaps only weakly (Paskov, 2015; Layte and Whelan, 2013). As far as crime and punishment are concerned, fluctuations in crime rates over time do not seem to be strongly linked to inequality, but more unequal societies may be more punitive (e.g. Lappi-Seppala, 2008). There have been major changes in family structures in recent decades in many rich countries, but the time-path of fertility, marriage and divorce, and lone parenthood and their variation across countries does not seem to be linked with the way income inequality has evolved (Calvert and Fahey, 2013).

Another, currently prominent, concern about increasing inequality is that it erodes trust in institutions and in others, with serious consequences for community life and for politics, as solidarity is undermined and alienation increased. The evidence suggests that while declining levels of trust have indeed been observed for many countries, this is not robustly related to increasing inequality (e.g. Stein and Lancee, 2011, Olivera, 2012). Solidarity, in the sense of concern for and willingness to help others, has been seen in some studies as negatively related to inequality, though that relationship is not strong and a variety of other factors appear to be at work (e.g. Paskov and Dewilde, 2012). Thinking about social cohesion and social rights more broadly, increasing inequality is strongly related to trends in poverty measured vis-à-vis relative income thresholds, but much less so when poverty is thought of in ‘absolute’ terms. Similarly, the extent and patterning of deprivation is much more strongly related to how average household income varies than to summary measures of inequality, though in some countries where mean income fell sharply in the economic crisis the impact on the poor was exacerbated by rising inequality. Social rights clearly go well beyond what is captured by either levels of household income or deprivation, and the impact of rising income inequality on the way states underpin such rights through social spending and services is key but evolves over a long period and is difficult to assess empirically.

As far as political processes are concerned, higher inequality is commonly associated with lower civic participation and lower voting turnout among the poor. It is also reasonable to expect that increasing concentration of income and wealth enhances the political influence of the rich, though the ways in which this makes itself felt are often hard to observe. On reactions to increasing inequality itself in the political domain, survey evidence suggests that the extent of discontent with inequality has increased as inequality rose, but only moderately - at least until recently. This is because the extent of increasing inequality may not be not fully recognised by voters, because there is some increase in the acceptability of higher inequality, and because inequality may be less ‘salient’ for voters than other issues. Inequality has very recently been seen in commentary as a central driving force in the UK referendum vote to leave the EU and in the rise of ‘populist’ or protest parties across Europe (as well as the election of Donald Trump as US president). In-depth research to examine these claims is only beginning to emerge, but suggests a more nuanced picture. In the UK case, income inequality has not in fact risen markedly in the last 15 years, having increased very sharply in the Thatcher era. The long-term effects of the de-industrialisation this involved, a slowdown in income growth from the early 2000’s, the impact of the crisis and post-crisis austerity measures on living standards, and the scale of immigration from 2004 may all have played a role. It is striking that the education level appears the most consistent single predictor of how people voted in the Brexit referendum, straddling economics, demographics and culture. In a similar vein, studies of the rise of support for populist parties across Europe assign differing weights to the role of inequality *per se*, economic insecurity, and cultural factors (Inglehart and Norris, 2016, for example find ‘cultural backlash’ to be the more important). The fact that support for populist parties has also risen in countries where inequality has been fairly stable over time (such as Austria and France) illustrates the complexity of the factors at work.

Addressing Income Inequality in Europe

With inequality now centre-stage, policies and strategies to halt or reverse the rise in income and wealth inequality and to promote ‘inclusive growth’ are being widely sought. A central message from analysis of the forces driving rising inequality is that policy matters: “the particular institutions and policies in place in an individual country at a particular point in time have a profound impact on the extent and nature of (those) inequalities and their societal significance” (Salverda et al., 2014, p. 3), as the recent highly influential book by the leading economic scholar of inequality puts it, (Atkinson, 2015).

The circumstances and institutions of each country will be key, but strategies to tackle inequality may nonetheless have some common elements.

Focusing first on inequality in income from the market, wage-setting behaviour and the institutions surrounding it are central to the distribution of earnings across individuals and households. Minimum wages represent the most direct form of intervention for governments in those terms, but not the only one. Robust collective bargaining arrangements appear to have played a key role in maintaining differentials across the distribution in some countries that have managed to avoid pronounced increases in inequality, and reinforcing these is another element in a broad strategy. In addition, the way top pay is set can be subject to regulation, and the incentives facing firms can also be altered by state action – including, as Atkinson suggests, by the way public procurement contracts are framed. Income from wealth also contributes to inequality, and promoting a broader distribution of wealth via more effective taxation of capital transfers from parents to their offspring, and perhaps by the introduction of a capital endowment for all, would help to address this.

Investment in education and in upgrading skills is a core component in what has been referred to as the 'race between education and technology'. This can be seen as part of a broader social investment strategy, designed to improve the productive capacity of the workforce of the future by more effective healthcare, education and social spending more generally. Another area for potential intervention, not often considered, is that technological change does not have to be seen as an unchangeable fact. Instead, there may be some scope for the nature of technological change to be influenced by public policy, in a way that increases the productivity of low and middle-skilled workers rather than replaces them.

While such policies directed towards changing the distribution of income from the market are an essential component, inevitably a successful strategy to address inequality will involve the strengthening of the capacity of the state to bring about redistribution through taxes and transfers. This may require for example more progressive income tax, some reversal of the shift from direct towards indirect taxes, and an increase in taxes on property, capital, and corporate profits. To enable this to take place, enhanced international cooperation to combat tax evasion and the shifting of the tax base across borders will be required, building on progress already made. As far as social protection transfers are concerned, safety-nets may often need to be strengthened in terms of coverage and adequacy, but this will not suffice. Improved family/child benefits and the renewal of social insurance in terms of generosity and coverage represent one promising route; others may wish to explore the potential of innovative approaches such as the Basic Income or Participation Income schemes that have been discussed for many years but are now being actively explored in certain countries.

The scale of the challenge posed by increasing inequality, and the strong intrinsic and instrumental reasons for addressing it urgently, mean that action across a very broad span of public activity is urgently called for. In the absence of such action, insecurity and precariousness at the level of the individual, household, community and state will continue to grow, threatening societal cohesion and international relations.

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Appendix: Data on Inequality

In assessing levels and trends in income and wealth inequality, it is important to understand the nature of the data employed, its strengths and limitations. Data on income inequality come principally from household surveys, which seek to obtain data from a representative sample of the population. These face a variety of challenges, including successfully getting responses across the full income range and obtaining full and reliable information on income from different sources. Those at the top and bottom of the income distribution may be particularly difficult to reach, and income from certain sources – notably from capital – is generally understated in aggregate. In some instances information from administrative sources, in particular from tax and social protection systems, can be used to supplement survey responses, but issues with respect to representativeness and reliability remain.

In making comparisons across countries and over time, further issues arise with respect to harmonisation, comparability and consistency, so that apparent differences in income inequality, may to some extent, reflect differences or changes in measurement practices. Major efforts have been made to address this in order to promote comparability and facilitate meaningful monitoring and analysis of inequality. These include:

- Eurostat's development with the national statistics offices of the EU's member states of the European Community Household Panel from the mid-1990s and then its replacement, the EU-Statistics on Income and Living Conditions (EU-SILC), from which both inequality indicators and micro-data are now available (http://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions);
- the bringing together of micro-data from different countries in the Luxembourg Income Study database (http://www.lisdatacenter.org/our-data/lis-database/);
- the OECD's compilation of indicators of income and wealth inequality indicators from its member countries into its Income Distribution Database (http://www.oecd.org/social/income-distribution-database.htm);
- the database of income inequality indicators from 1980 brought together from national sources by the Growing Inequalities' Impacts (GINI) collaborative research project funded by the EU's Framework Programme 7 (http://www.gini-research.org/articles/data_2).

The figures presented in Tables 1 and 2 of this report are drawn from those sources, with judgement exercised in selecting which estimate to use for a particular country in order to cover the period in question as fully and reliably as possible.

With surveys known to face particular problems in capturing the top of the income distribution, a key innovation in recent years has been the production of estimates of the share of total income going to the very top over time by a network of researchers led by Tony Atkinson and Thomas Piketty. These are made available on the World Top Incomes database, and are based on analysis of data from income tax records and the national accounts rather than surveys. These estimates are available only for certain countries, but in some instances cover a much longer period than do overall inequality measures drawn from surveys. This is the source from which the figures presented in Table 3 of the report are drawn.

Obtaining reliable measures of the distribution of wealth is even more challenging than in the case of income, since wealth is more concentrated and failure to capture the top of the distribution can mean that much of total wealth is missed. Once again significant strides have been made recently in improving the data available, including via the ECB's organization of the Household Finance and Consumption Survey (HFCS), which collects household-level data on households' finances and consumption in Eurozone countries (https://www.ecb.europa.eu/pub/economic-research/research-networks/html/researcher_hfcn.en.html); the bringing together of micro-data from wealth surveys in the Luxembourg Wealth Study database (http://www.lisdatacenter.org/our-data/lws-database/), the compilation of wealth inequality indicators in the OECD's Wealth Distribution Database (https://stats.oecd.org/Index.aspx?DataSetCode=WEALTH), and the recent expansion of the World Top Income Database to include series on wealth, reflected in its being re-named the World Wealth and Income Database (http://www.parisschoolofeconomics.eu/en/research/data-production-and-diffusion/the-world-wealth-income-database/). The figures mentioned in this report are drawn from the OECD compilation.