

# Can we reduce income inequality in OECD countries?

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**Abstract** The public debate about inequality has generated a sense of gloom and doom—that high levels of inequality are inevitable and that little can be done. The aim of this paper is to inject a more optimistic note. I argue that there have been periods in the past when income inequality was reduced and we can learn from these, that the textbook story of the causes of rising wage inequality—globalisation and technological change—has a more optimistic interpretation; and that, whereas wages are a major part of household incomes, but there are other important determinants where it is possible to take action to reduce inequality. The paper ends by outlining four “old” measures to reduce inequality, based on the lessons from the post-war decades in Europe, and four “new” measures suggested by the analysis of today’s economics of inequality.

**Keywords** Inequality · Wages · Redistribution

## 1 Introduction

According to Globalpost, America’s world news site, 2013 was the year “that inequality went mainstream”. There has been massive media coverage of Thomas

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A (considerably) revised version of a plenary lecture given at the Nationalökonomische Gesellschaft/ Austrian Economic Association Annual Meeting in Vienna, May 2014. I am most grateful to Wilfried Altzinger and his colleagues for the invitation and for their warm hospitality. The paper is based on research carried out in the Inequality Group that forms part of the EMoD programme supported by INET at the Oxford Martin School. It draws on joint recent work with Salvatore Morelli on the *Chartbook of Economic Inequality* and with Facundo Alvaredo on the World Top Incomes Database.

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Piketty's book, *Capital in the Twenty-First Century* (Piketty 2014). Politicians have declared that rising inequality is one of their policy priorities. For a person like myself, who has been researching economic inequality since 1966, it is good to hear these fine words. However, as the English say, "fine words butter no parsnips". Talk does not get anything changed. In this respect, the recent debate has been disappointing. There is a sense of gloom and doom—that high levels of inequality are inevitable and that little can be done to reduce inequality. The outlook for the 21st century looks bleak.

Some people respond to this dystopian picture with a shrug and say that all that can be done is to revive overall growth. Others, however, are asking whether inequality is inevitable and whether there are measures to reduce its extent. It is to this second group that the present paper is addressed. *If* we are serious about reducing income inequality, are there measures that can be taken to bring it about? In putting the question, the "if" is italicised, since it is a presumption that "we" do in fact want to reduce income inequality—a presumption that I am going to make in this paper, but which is nonetheless a presumption. Not only are there people who are unconcerned about increased inequality, but also when people say that they *are* concerned, they often mean different things and they are concerned about inequality for different reasons. In some cases their concern is with the consequences of inequality, and they wish to reduce inequality in order to underwrite sustainable economic performance or to mitigate social problems. In other cases, their concern is intrinsically with a more fair society. Here I do not rehearse these arguments, but simply start from the position that we wish to make a move towards reducing the extent of present income inequality. At the same time, my ambition is a limited one. I am assuming a desired direction of movement, but not a final destination. Just how far we wish to move towards reducing inequality is a matter on which opinions differ greatly, and different countries are differently placed. In exploring direction of movement, I am following Amartya Sen's *The Idea of Justice*, in his emphasis on the search "to reduce injustice" rather than to characterise a "perfectly just society" (Sen 2009, p. ix).

My aim is to inject a more optimistic note into the debate about inequality. My reasons for believing that we could—given the political will—reduce economic inequality are threefold:

- There have been periods in the past when income inequality was reduced and we can learn from these (Sect. 2);
- The textbook story of the causes of rising wage inequality—globalisation and technological change—has a more optimistic interpretation (Sect. 3);
- Wages are a major part of household incomes, but there are other important determinants that can contribute to reducing inequality (Sect. 4).

The aim of the paper is to provide a positive point of departure for considering policy options such as those listed in the Conclusions (Sect. 5). A fuller account of the policy proposals is given in Atkinson (2015).

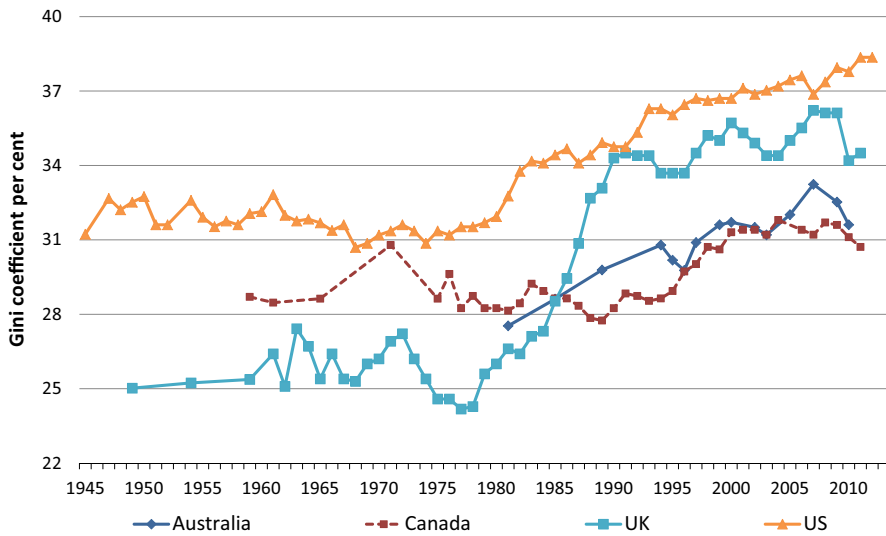
## 2 Learning from the past

As the title indicates, I focus on the position of OECD countries. This is not because I discount the serious matters of global inequality or those that arise within countries elsewhere in the world. Rather, they raise issues that cannot be treated within the compass of the paper, and experience has been rather different, notably the recent period of falling inequality in Latin America. I also concentrate on issues of vertical inequality—between rich and poor—and leave out other important dimensions of income inequality, such as those by ethnic groups, by gender or by generation.

When in the past was income inequality reduced? What can we learn from such periods? In order to answer these questions, one needs long run time-series of measures of income inequality. One of the significant advances in the past 15 years has been the assembly of such series, including constructing data for earlier periods when estimates could have been made but no one thought to do so. In the *Chartbook of Economic Inequality* that I have prepared together with Salvatore Morelli, Atkinson and Morelli (2014) we have assembled evidence for 25 countries going back to the early days of the twentieth century. Here I focus on the post-war period, from 1945, and on 12 OECD countries. Inequality is measured in terms of the Gini coefficient, which can be interpreted in terms of the expected difference in income between any two people chosen at random: the Gini coefficient is half the mean difference divided by the mean. Alternatively, if income is redistributed through a linear tax system, then, with reasonable assumptions about the overall tax burden, a 5 percentage point rise in the tax rate reduces the Gini coefficient by some 3 percentage points.<sup>1</sup> Since enacting a 5 percentage point increase in the tax rate would be a significant challenge for any Finance Minister, I take a 3 percentage point change in the Gini coefficient as a yardstick for salience.

Evidence about rising inequality is usually presented for the US or for Anglo-Saxon countries, and I begin in Fig. 1 with four of these: Australia, Canada, UK and US. In each of the graphs, the horizontal lines mark the scale in distances of 3 percentage points, the criterion I have adopted as a measure for a salient change in the Gini coefficient. As may be seen, the picture is one of considerable diversity. Even for Anglo-Saxon countries, the time-paths over the post-war period are noticeably different. If we were to take the US Gini coefficient as a “driving force”, it would explain only a part of the variance for the other countries, even if we allow time lags. The difference between the US and the UK is particularly marked. In both countries, inequality began to rise at the end of the 1970s, but the increase was much steeper in the UK, where the Gini coefficient rose by 10 percentage points, compared with some 3 percentage points in the US in the same period (1978 to 1990). Then overall income inequality in the UK stabilised, and the Gini coefficient

<sup>1</sup> A gross income of  $Y$  becomes a net income of  $(1 - t)Y + A$ , where  $t$  is the tax rate and  $A$  is the benefit paid to everyone (this can be thought of as the value of the personal tax allowance). Since  $A$  is the same for all, the Gini for disposable income is  $(1 - t)$  times the Gini for market income ( $Y$ ) divided by the ratio of average disposable income to average market income. Then, if government spending on goods and services (health, education, defence, etc.) absorbs 20 % of tax revenue, the latter ratio is equal to 80 %. Suppose further that the Gini coefficient of market incomes is 50 %. The reduction in the Gini for disposable income from an increase  $\Delta t$  in the tax rate is then 0.5 times  $\Delta t$  divided by 0.8.



**Fig. 1** Overall income inequality 1945–2012 Anglo-Saxon countries. *Source:* the data are from <http://www.chartbookofeconomicinequality.com/>. In each case, the Gini coefficients have been anchored to the values given by the LIS Key Figures data for 2004/5: [www.lisdatacenter.org/data-access/key-figures/](http://www.lisdatacenter.org/data-access/key-figures/)

in 2011 was little different from that in 1990. In Australia and Canada, the increases are smaller than in the US, and the total increase for Canada between 1980 and 2010 falls (just) short of the salience criterion. It is therefore wrong, even when attention is restricted to Anglo-Saxon countries, to talk of a common pattern of rising inequality, and the differences suggest that the outcome reflects national specificities or policy choices.

Time series evidence on inequality is often described in simple alphabetic terms, such as a U-shape having replaced a previous  $\cap$ -shape. However, the alphabet is not sufficiently rich to describe the patterns we observe and it gives a misleading impression of an underlying regularity. As I have stressed in the past, the history of income inequality is not well described by broad general trends but rather as a sequence of “episodes” when inequality rises or falls (Atkinson 1997). In the UK, there was an episode of sharply increasing inequality in the 1980s that came to an end. There was a distinct upward step, as there seems also to have been in Canada. Less pronounced, but evident, is a period of falling inequality in the UK in the 1970s. In this respect, the UK belongs to the European grouping of OECD countries.

The decades after the Second World War saw a major reduction in income inequality in Continental Europe—see Fig. 2. In the 35 years from 1945 and 1979, overall inequality fell in France, Germany, Italy and the Netherlands by between 5 and 10 percentage points. A similar order of magnitude of reduction was achieved in three of the four Nordic countries shown in Fig. 3 (the data for Norway do not extend sufficiently far back for a calculation to be made), although in these countries the decline started rather later. There was not a general downward trend, but rather, in the case of Denmark for example, a period of stability in the 1950s and 1960s,

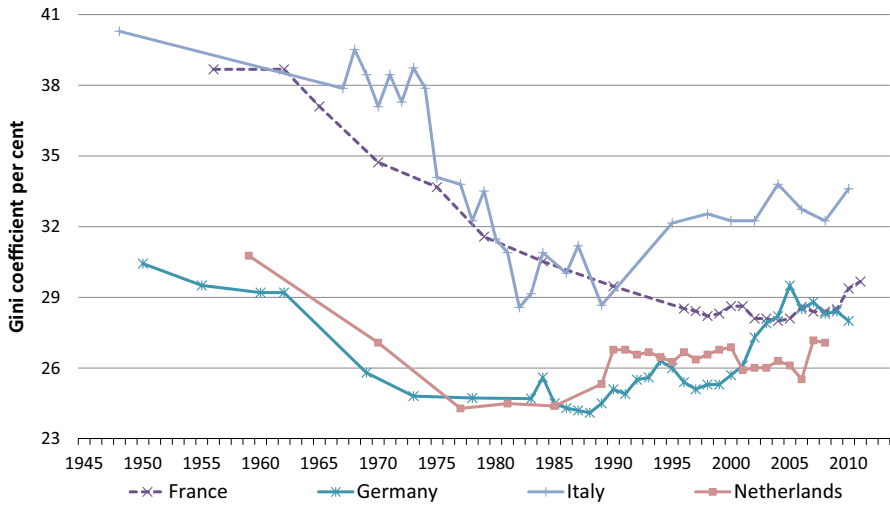


Fig. 2 Overall income inequality 1945–2012 Continental Europe. Source: see Fig. 1

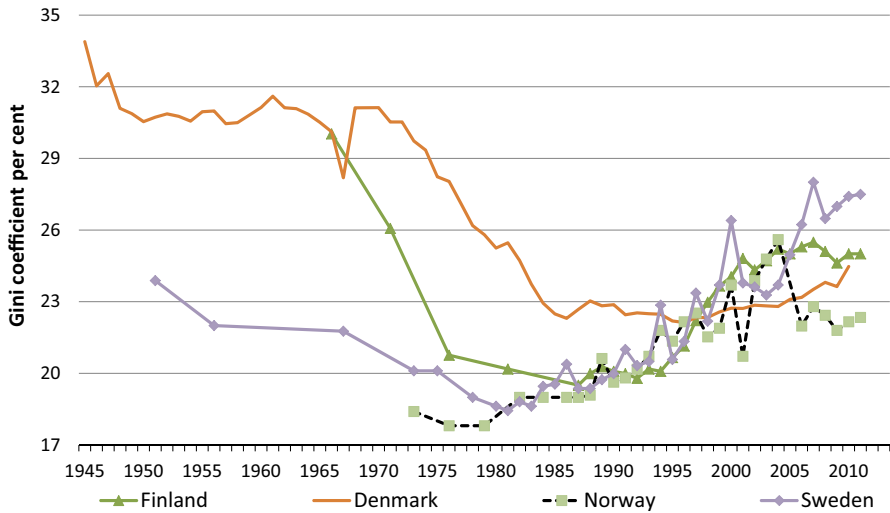


Fig. 3 Overall income inequality 1945–2012 Nordic countries. Source: Finland, Norway and Sweden, see Fig. 1; for Denmark, the coefficients are from Atkinson and S ogaard, forthcoming, Fig. 4, again anchored using the LIS Key Figures

followed by a steep fall in the Gini coefficient. In the same way, the subsequent rise in inequality was more of a “step” upwards than a steady upward trend in Finland, Germany, Italy, and the Netherlands. In Germany, for example, the Gini coefficient rose by some 3 percentage points up to 2004, and then stabilised (Grabka et al. 2013).

## 2.1 The fall in inequality in post-war Europe

The major fall in inequality in post-war Europe raises two questions. (a) How was it achieved? (b) Why did it come to an end and/or was reversed?

The first answer is taxes and transfers. The post-war decades were a period of expanding welfare state and social provision, financed by progressive income taxation. Evidence from household surveys, such as the regular official studies in the UK of the impact of taxes and benefits (ONS 2011), shows that these contributed significantly to the declining inequality of disposable income. The maturing of state pensions and the extension of other social transfers reduced the extent of poverty among the elderly and other groups not in the labour force. In West Germany, inequality of market income widened substantially but that this was not accompanied by an equivalent rise in inequality of disposable income. This continued for quite a period, as explained by Richard Hauser (1999), “the German tax and transfer system reduces the inequality of market income quite considerably ... the German social security system, despite the increasingly unfavourable conditions, largely reached its goals from 1973 to 1993” (my translation). There came however a turning point. In more recent decades we have seen cuts in personal income tax that have reduced top tax rates in many countries. We have seen an unwinding of redistributive policies in OECD countries. This was responsible for increased income inequality: “from the mid-1990s to 2005, the reduced redistributive capacity of tax-benefit systems was sometimes the main source of widening household-income gaps” (OECD 2011, p. 18).

The post-war reduction in inequality was not only achieved by redistribution. A second significant contribution was made by capital incomes becoming less unequally shared. There were two components to this effect of capital incomes: the share of capital in national income was falling and the distribution of capital income among persons was becoming less unequal. In recent decades, factor shares in national income have been discussed in terms of a rise in the capital share, but the reverse was the case in the immediate post-war decades. In his 1969 study, Klaus Heidensohn found that over the period 1948 to 1963 there had been a “rising trend of labour’s relative share in a large number of countries” (1969, p. 304). There was a significant (at 1 % level) positive coefficient on the time trend for 16 of 17 countries. In Austria, the labour share rose from 59 to 64 %. This has now changed. In 2007, before the crisis, the IMF noted that “over the past two decades, there has been a continued decline in the share of income that accrues to labor, especially in Europe and Japan” (2007, p. 168). According to the 2012 Employment Outlook of the OECD, “in recent decades, the labour share, or the share of labour compensation (wage, salaries and benefits) in the total national income, has been declining in almost all OECD countries” (OECD 2012, p. 110).

The distribution of wealth was also changing. Roine and Waldenström (2015, Table 7.A2) have assembled a long-run series for the share of the top 1 % in ten OECD countries. This shows large reductions in top shares: for example, between 1945 and the late 1970s, the share of the top 1 % fell from 39 to 26 % in Denmark, from 33 to 22 % in France, and from 38 to 17 % in Sweden. These are major shifts in wealth shares. But the decline in concentration came to an end. Between the early

1980s and the 2000s, the share of the top 1 % in total personal wealth rose by 2.4 percentage points in France, by 2 percentage points in the UK, and by 1.1 % in Sweden (Roine and Waldenström 2015). These are small changes but demonstrate that the earlier equalisation had come to an end.

What about wages? There was definitely a period in Europe when earnings dispersion fell. Earnings differences were narrowed from the mid-1960s in France, particularly after the events of May 1968. In the UK, the bottom decile rose by a fifth relative to the median between 1968 and 1977. In the Netherlands, the minimum wage was raised substantially in 1974 and there was a deliberate government policy to narrow differentials (Hartog and Vriend 1989). In each case, an important role was played by intervention in the labour market. This operated in some cases via minimum wage legislation, but also through a now forgotten instrument—incomes policy. In 1975, the pay rise allowed in the UK under incomes policy legislation was a flat £6 per week. To this we must add the contribution made to reducing overall inequality at that time by the reduction in earnings differentials by gender following the introduction of equal pay legislation.

To sum up, the answer to the first question is that inequality reduction was achieved in Europe in the post-war decades by the following: redistribution via the welfare state and progressive taxes, a reduced share of capital income and a marked decline in the concentration of wealth, and equalizing labour market policy. The most evident answer to the second question—why was there a reversal after 1980?—is that these mechanisms have gone into reverse (welfare state cutbacks, declining share of wages, and rising earnings dispersion) or come to an end (the redistribution of wealth). This in turn suggests that the extent of inequality could be reduced by adopting the policies of the immediate post-war decades. To a significant extent, I believe that to be true, but we must confront the argument that we are now living in a new world and that the economics of inequality are quite different today.

### 3 The textbook story

The canonical story told by economists about rising inequality is indeed that the world is different. It is a twofold one:

- Today's higher income inequality is due to an increased wage premium for skilled (educated) workers;
- The increased wage premium for skill is due to globalisation and skill-biased technological change (ICT).

Open virtually any introductory economics textbook and you will find an explanation of rising income inequality in terms of supply and demand. This may of course reflect the domination of US economics, and US textbooks, but the supply and demand explanation was originally due to the Dutch economist, Jan Tinbergen, who talked in the 1970s about the race between technological progress biased towards skilled workers, raising the relative demand for them, and education,

increasing the supply of skilled workers. If, he argued, demand rose faster, then the relative earnings of skilled workers would rise, and vice versa. Since he wrote, a further factor has been introduced: globalisation. The increased supply of goods on the world market from countries with lower wage costs has driven down the relative price of goods in which unskilled workers are more intensively engaged, and hence widened the wage differential.

It is simple Economics 101 with a supply and demand diagram. We have on the horizontal axis the relative quantities of skilled and unskilled workers and on the vertical their relative wages. The higher the relative wage, the greater is the premium for skill. Over time, the demand is shifting outwards, and the wage differential rising. It should be noted that there is an elision of skill and education. Skilled workers are assumed to be those with higher levels of education—college education in the US. The wage premium is that for college-educated workers. In fact, it is far from evidently the case that skill can be equated with the acquisition of formal educational qualifications, but I leave it on one side. The conclusion from the EC101 story is a pessimistic one, in the sense that if technical progress and globalisation continue to shift demand outwards we can expect the wage dispersion to continue to widen. If there is a levelling off in inequality, then it can only be temporary—perhaps a reflection of the recession. There are identified economic forces—technology and trade—driving inequality ever upwards, and the impression is created that this is inevitable.

Such a conclusion would however be premature, since the model is incomplete. We have in fact to move beyond first year economics. There is more to the story than just drawing the supply and demand cross. To begin with, we have been talking in dynamic terms, but no dynamics are supplied. The intersection of the supply and demand curves shifts without explanation. Suppose that we provide the simplest dynamics, with the demand curve shifting at a constant rate,  $g$ , reflecting the degree of bias towards skilled workers, and the supply responding according to the excess of the wage premium over the cost of education, with a speed of adjustment  $\beta$ . Then it turns out that the process leads to a higher wage premium, but not to an ever-increasing one (Atkinson 2008). The degree of wage dispersion levels off, with a premium that is higher than the cost of education by an amount  $g/\beta$ . We have therefore a step upwards, rather than an ever-upward trend—just as we have observed in Figs. 1, 2 and 3 for overall income inequality. The ICT revolution led to an episode of rising inequality not to a U-turn. This formulation explains why countries faced with the same forces—technology and globalisation—have experienced different increases in the wage premium. The premium depends on the rate of demand shift, broadly common across OECD countries, but also on the speed of adjustment, which varies from country to country according to their institutions and the policies adopted.

This is both a less alarming picture and a formulation that immediately indicates one way in which inequality can be reduced—if the wage premium depends on  $g/\beta$ , then raising  $\beta$ , the speed of response, lowers wage inequality. As such, it supports the “smart growth” agenda of the European Union and of many national governments. “Investment in human capital” is the rallying cry, as it has been for many years. I fully support such measures. However, we can go further.



Government policy is not limited to  $\beta$ ; it can also influence  $g$ . The rate and direction of technological change are not determined by purely external forces; they reflect conscious decisions. These decisions may be direct, as with the allocation of research and development resources, or indirect, as where technical progress takes place on account of learning by doing. In the latter case, decisions made today about techniques of production have implications for the future distribution of income, since experience with a particular technique leads to future increases in productivity. There is no reason to suppose that the choices made by firms concerned only with shareholder value will take adequate account of the interests of other stakeholders, such as workers and consumers. There is therefore a role for the state that extends beyond the usual redistributive policies. Both science policy (support for research and development) and industrial policy have a potentially important distributional dimension. Policies to reduce the extent of inequality have to look beyond human capital formation and involve other departments of government.

#### 4 There is more to explaining inequality

There is a tendency in the economics literature to conflate “wage inequality” and “income inequality”. There are countless articles with “income inequality” in the title that refer only to the distribution of individual earnings. Yet there is much more to explaining the distribution of household disposable income. Even staying with wages, the income of a household depends on the joint distribution of the earnings of different members of the household. Income inequality among households is greater when there is a concentration of low earners or non-earners than where there is less correlation of disadvantage. Moreover, the correlation can be influenced by public policy. The move towards income-tested social transfers, away from social insurance, has created disincentives to work for the partners of the unemployed (since their earnings now reduce or eliminate the financial assistance to the unemployed). A return to an individual-based social insurance system would contribute to reducing the number of job-less households.

I focus here on another part of the story: the capital market, which appears even in the supply and demand model of earnings. The wage premium for educated workers is affected by the effective cost of borrowing to fund schooling, which implies an important inter-connection between the labour market and the capital market. It is certainly possible that one reason for the rise in the premium in the 1980s was the increase in the real rate of interest. This has ceased to be the case in recent years, but other costs of education have increased, notably as a result of increased student fees and the withdrawal of studentship support. Increased reliance on parental funding means that inequality of income in one generation is to a greater extent associated with inequality of opportunity in the next generation. To secure a more level playing field, it is necessary to couple taxation of substantial inheritances with the provision of a minimum inheritance to all—just as was proposed by Thomas Paine (1797).

The capital market is important in terms of capital incomes. This takes us back to an old topic in economics: the macro-economic distribution of income. Or rather, it

means combining old and new topics. The recent literature on rising inequality has focused on the roles in production of skilled and unskilled workers; the production function was  $F(L_s, L_u)$  and the analysis turned on the elasticity of substitution between these two types of labour. The old literature focused on the roles of capital and labour; the production function is  $F(K, L)$ . The elasticity of substitution between capital and labour is important because an elasticity greater than 1 means that a rise in capital per worker can be accommodated with a smaller than proportionate fall in the rate of return, so that the profit share rises, as has been happening in recent decades. However, wages should also be increased if there is more capital, and this does not seem to be happening. As Larry Summers (2013) has recently pointed out in his 2013 Martin Feldstein Lecture, it may be that capital has moved from being just a factor in its own right to also replacing labour. Robotisation may be, at least in part, responsible for the rising profit share but stagnant wages. It then becomes crucial who owns the robots. In that context, we may need to look to a situation where the state acquires beneficial ownership (not control) of productive capital and uses the profits to share the benefits among all citizens (as with sovereign wealth funds). Entitlement could be based on citizenship or—my preferred version—on participation in the society.

What are the implications for the concentration of wealth? The answer given by Thomas Piketty in his recent book is that it all depends on the difference between the rate of return and the rate of growth. Specifically, where the rate of return exceeds the rate of growth, “wealth coming from the past is being capitalized at a faster rate than national income. So past wealth tends to dominate new wealth, rentiers tend to dominate labor income earners, and inheritance flows are large relative to national income” (2011, pp. 1074–1075). I approach the question along related lines that I learned from James Meade (1964), my teacher in Cambridge, and from the development of his work by the then young graduate student, Joe Stiglitz (1969). This looks at the rate of growth of the wealth of rich and the poor, and asks whether they keep up with the growth of the economy. On this view, it is less the relationship between  $r$  and  $g$ , and more differences in  $r$  and differences in the savings rate,  $s$  (there are also differences in the wage income received). In Atkinson and Harrison (1978), we refer to  $sr$  as the “internal rate of accumulation”. From this formulation, it is immediately clear that progressive taxation of capital income, or of wealth, or of the transfer of wealth all contribute, through reducing the effective savings rate of the rich, to narrowing the gap between the rich and the less wealthy. They may or may not reduce the amount of inheritance, but they definitely reduce the inequality of inheritance. The taxation of wealth and its transfer are central to this aspect of redistribution.

Meade stressed in his analysis a second factor that is apparent from this formulation: the role played by differences in  $r$ : “there is strong evidence that the rate of return on property is much lower for small properties than for large properties” (1964, p. 44). This is the key to understanding the bafflement with which many lay readers have greeted Piketty’s argument about high rates of return, which they find hard to reconcile with the low rates of return received by small savers. The return is indeed negative in real terms. In the same month as Piketty’s book was published, the IMF *World Economic Outlook* (IMF 2014) depicted the

widening gap since 2001 between the real return on equity (in the US) and the real interest rate. The gap in 2013 in the US was 3½ percentage points. That gap seems to me as important as the gap between  $r$  and  $g$ . Put in practical terms, part of the difference is due to the management fees charged by those who manage small savings, including private pension funds, and if these fees were to be reduced, then the small savers would stand a better chance of closing the gap. Small savers should at the very least be able to earn a positive real rate of return on their savings, and making such savings accounts available is a constructive step that governments could take.

## 5 Conclusions: a mix of old and new measures to reduce the extent of income inequality

I began with the current media coverage of inequality and the way that it has entered political discourse. Much of this discourse warns of the threats posed by rising inequality; it is almost apocalyptic in tone. In this paper, I have tried to sound a more positive note. There are ways to explore if we are seeking to reduce income inequality. In Atkinson (2015), I have developed fifteen concrete proposals. Here I simply list a selection that follow from the earlier discussion: four “old”, reverting back to the lessons from the post-war decades in Europe, and four “new” suggested by the analysis of today’s economics of inequality.

The four measures that draw on the post-war European experience are:

- Restoration of a progressive rate structure for the personal income tax, with rates rising by steps of 10 % to a top rate of 65 %;
- A lifetime capital receipts tax: the taxation at progressive rates of the total received over a person’s lifetime in bequests and gifts;
- Renewal of individual-based social insurance and payment of substantial (taxable) child benefit;
- A national pay policy, consisting of a statutory minimum wage and a code of practice for pay above the minimum.

The four measures that represent departures are:

- A minimum inheritance paid to all on reaching adulthood, financed by the lifetime capital receipts tax;
- Government savings accounts with a guaranteed positive real rate of interest up to a maximum per person;
- A participation minimum income (variant on a citizen’s income) as a complement to existing social protection, beginning with an EU-wide child basic income;
- The direction of technological change should be an explicit concern of policy-makers, encouraging innovation in a form that increases the employability of workers.

These measures clearly require elaboration, and there are objections in each case that need to be given careful consideration. But one objection I do not accept. I do not believe that measures such as those outlined above should be rejected solely on the grounds that they involve higher taxes. There is no doubt in my mind that we need to raise taxes. In 1918, Joseph Schumpeter gave a speech on “Die Krise des Steuerstaates” (“The crisis of the tax state”). Writing at the end of the First World War, he argued that it was not the case that “an otherwise perfectly healthy tax state had suddenly become impossible owing to the world war and its aftermath” (1991 version, p. 101). In the same way, the fiscal problems of today are not solely due to the economic crisis and recession. As Schumpeter said then, there is “a much more basic inadequacy of the particular society whose fiscal expression the tax state is” (p. 101). He saw, more clearly than we do today, that the legitimacy of the market economy depends on its being able to exercise fiscal powers to finance the collective activities of such a society. As it says on the Internal Revenue Service building in Washington, D.C., “taxes are what we pay for a civilized society”. If collecting taxes ceases to be a legitimate function, then the future is indeed bleak.

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