1 Introduction

Globalisation and inequality are much debated. Underlying much of the political protest surrounding international organisations such as the World Trade Organisation, the IMF and the World Bank has been concern with the perceived injustice of developments in the world economy. Those discontented with globalisation argue that it has led to widening inequality between rich and poor countries, and has caused increased inequality within countries. Elimination of trade barriers has led to expanded trade in low-technology manufactures, worsening, it is claimed, the labour market conditions faced by unskilled workers in OECD countries. On the other hand, those advocating trade and market liberalisation argue that these measures have raised living standards and are contributing to reducing world poverty. The economists’ general presumption in favour of free trade is justified in this case on both efficiency and equity grounds.

This lecture is about one piece of this debate – the distribution of income in OECD countries, and its relation to public policy decisions, particularly those regarding the welfare state. It is only one piece. You may well say that it is more important to study what happens within poor countries, and to focus on the gap between rich and poor countries. If you say that, then to some extent I agree with you. But even so, I am not going to change tack. This is for two reasons. The first is that, in

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1 I am most grateful to the School of Policy Studies for the invitation to give this J Douglas Gibson Lecture, following in the line of very distinguished previous speakers. I would like to thank the School for their warm hospitality during my visit.
my judgment, we are not in a position to give authoritative answers about the changes in the world income distribution as a whole. We have not invested enough in the fundamental research. In my view, we need to break up the analysis of world inequality into more manageable parts. The second reason is that I believe that, from the study of inequality in OECD countries, we can draw wider lessons relevant to the world distribution. We can learn about the care needed in describing the empirical picture; we can learn about the underlying theoretical concepts; and we can learn from the explanatory models.

In concentrating on inequality within OECD countries, I am not leaving controversy behind. There are strong differences of view – both about the facts and about their explanation. These two aspects form the content of the two main sections of the lecture. First the empirical basis. Many people are firmly convinced that we are seeing a rise in inequality. The period of diminishing inequality after the Second World War has come to an end, and been replaced by a period of widening differences. Harrison and Bluestone (1988) have christened it the “great U-turn”. According to Alderson and Nielsen, “after four decades of moderating inequality, income inequality in the United States began to increase around 1970. Since then it has risen at a steady rate” (2002, page 1246). They go on to suggest that the upswing has an “international character”. A more cautious statement of the U-hypothesis is that by Gottschalk and Smeeding: “by the early 1980s, inequality in the US had reached 1948 levels and increased markedly before levelling out in 1994-6. The figures [suggest] that the 1950s and 1960s in the US ... were periods of unmatched equality” (2000, page 294). Cornia and Court describe how “the Golden Age, a period of stable global economic growth between the 1950s and early-mid 1970s, witnessed declines in income inequality in a number of countries (with some exceptions). This
trend was reversed over the last two decades as country after country has experienced an upsurge in income inequality” (2001, page 7).

In contrast to the “Great U-turn” hypothesis, stands the belief that there has been little distributional change within countries, supported by a number of studies of the variation of inequality over time. Gustaffson and Johansson find 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, page 591). 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. Forty years earlier Solow had written that the US income distribution “is a facet of economic life which changes slowly when it changes at all. Between [1935 and 1956] real GNP increased 2.5 times, prices doubled, the unemployment rate fell from 20 per cent to 2.5 per cent; and against this background the relative distribution changed by inches” (Solow, 1960, pages 109-110). As Aaron remarked, "following these data was like watching the grass grow" (1978, p 17). Or, to adopt an alternative metaphor, the pace of change is glacial.

There is therefore disagreement not just about explanations but also about what is to be explained. This is the subject of the first section of the lecture. Has there been a great U-turn? Is the pace of change glacial?

People see the facts differently in part because they have different explanations. We all have a tendency to interpret data in the light of our pre-conceived theories. In the field of income distribution, there are many forces at work, and these are the subjects of the second main section of the lecture. In my title, I have drawn attention to two of these - globalization and the welfare state – that have been together invoked to explain how a common force (globalization) can have had
differing effects in different countries (depending on the extent of their welfare states). The need for such an explanation of differing effects is well illustrated by the contrast between the United States and Canada. At least up until 1995, overall income inequality in Canada did not materially increase, whereas there was a substantial increase in inequality in the US. Yet the US and Canada have been exposed to similar global forces. Are the contrasting changes due to differences in the welfare state? I should explain here that I interpret the “welfare state” both narrowly and broadly. My interpretation is narrow in that I concentrate on cash transfers, through social security and other payments, and do not consider spending on health care, education or social services. My interpretation is broad in that I consider redistributive income taxation as part of the transfer process, as well as labour market interventions such as minimum wages.

In considering this issue, I start from what has become a widely accepted explanation for rising income inequality. Globalization and/or technological change have led to a shift in demand away from unskilled labour. The distributional consequences of such a shift depend on the form of the welfare state. Where wages are freely flexible, then the shift in demand causes increased wage dispersion. Where the welfare state provides an effective floor to wages, then the result is unemployment of unskilled workers. As Krugman (1994) and others have argued, we have a unified explanation of what is happening in the United States (increased wage premium for skilled relative to unskilled workers) and in Continental Europe (high unemployment). This story is however incomplete. In Section 2, I set out three respects in which the standard theory is unsatisfactory and needs to be developed.

One important reason for wishing to distinguish between different explanations is that they have different implications for the future evolution of
inequality. The great U-turn hypothesis suggests that we are on a steady upward trajectory. It is perhaps the extrapolation of the upward arm that gives people most concern. A sans serif $\mathcal{U}$ that continues upward is a very different proposition from a script $\mathcal{U}$ that looks more like a bird on the wing, or a $\mathcal{U}$ with a serif indicating an end to rising inequality.\(^2\) In what follows, I attach particular attention to what has happened in recent years, and the concluding section considers what the future may hold in store.

1 Reversal of History or Glacial Movement?

The evidence reviewed here relates to the household distribution of disposable money income, adjusted for household size and composition. The degree of income inequality is of course only one of many indices of social performance. It is however frequently the subject of social reports, and the European Union has recently adopted such an index as one of its commonly agreed and defined social indicators (European Commission, 2001, Atkinson et al, 2002). At the level of individuals and their families, current money income is only a partial measure of social welfare, but it provides an indicator that can be readily monitored over time and interpreted in the light of changing circumstances. The particular measure used here is only one of many that could be chosen, but it is that most commonly cited.

My time frame is the second half of the twentieth century. I believe that the recent inequality movements can only be understood in the light of the historical experience. Indeed, while I confine my attention here to the period 1945-2000, an even longer perspective would be desirable. I also attach considerable weight to high

\(^2\) I discovered in the course of my research for this lecture that the first sans serif typefaces, in 1816 in Britain, were considered “awkward and unappealing since they lacked the traditional serif. Therefore they were called Grotesque” (www.redsun.com/type/classification).
frequency series. Reference to “high frequency” may sound absurd when this
description is more conventionally applied to weekly or daily financial data. What I
am suggesting here is that where the underlying data are collected annually, then we
should use the full set. In particular, I have serious doubts about the practice adopted
recently by the OECD (for example; Förster, 2000) of taking observations for “mid-
1970s”, “mid-1980s” and “mid-1990s”. Such a procedure can seriously misrepresent the
dynamic pattern. A single year can be highly misleading. The “spike” observed in
Sweden for the year 1986 (see Figure 4) provides an example. As Gustaffson and
Palmer comment, “the spike vividly illustrates the possible pitfalls in selecting
specific years for study, as opposed to examining the trend over an entire period”

I have therefore assembled in Figures 1-7 income distribution data for seven
OECD countries, summarised in terms of the Gini coefficient. The countries are
Canada, Finland, Italy, the Netherlands, Sweden, the UK, and the US. I should stress
that these data are not comparable across countries. The exercise is different from
that conducted by the Luxembourg Income Study, which has very valuably put
income distribution data on a broadly comparable basis. Their estimates are however
limited to a selection of years. My quest for annual series means that I have to use the
estimates produced in the most part by official statistical agencies. They reflect
particular national features. For example, the official US estimates, with which I

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3 This compilation draws heavily on work with Andrea Brandolini of the Bank of
Italy. Brandolini (1998) provides a “bird’s eye view” of income distribution, which
has data for the pre-war period as well. Among earlier sources with time series
covering a range of countries are Atkinson (1997), Atkinson, Rainwater and
Gottschalk and Smeeding (1997 and 2000), Jäntti and Danziger (2000), Kuznets (1963),
See also Atkinson and Brandolini (2001).
begin, show the distribution of income before tax. In this respect they differ from most other countries.

*The Pictures*

Figure 1 shows that the data are rich. Indeed it is worth reminding ourselves what statistical progress has been made. In 1912, Frank Streithoff abandoned an attempt to estimate a distribution of incomes by size in the US on the grounds that “the basic material necessary for a satisfactory study was simply not to be found” (Goldsmith, 1958, page 65). But it also highlights the need for care. As in most countries, to cover the period as a whole we have to have recourse to several series. The picture is a patchwork rather than a single seamless garment. Moreover, even what may appear to be a single series often exhibits discontinuities, as there are changes in definitions, in methods of data collection, or in data processing. In assembling the data series I have tried to identify and label the most important breaks in the series. One notable break in the US CPS series was that in 1993 when the data collection changed from paper and pencil to computer assisted interviewing, and when there was a large increase in the top codes (that for earnings rose from $299,999 to $999,999). This was important, since there was a large rise in recorded inequality in that year, and estimates (Weinberg, 1996, footnote 3) indicate that these changes could account for one half of the recorded increase. Ignoring the break would give a highly misleading impression of the consequence of President Clinton’s election.

So what support do we find for the U-hypothesis? Certainly there has been a rise post-1968. By 1992 the Gini coefficient had risen by some 5-percentage points. This is a large rise, and if it had not taken place, then I suspect that I would not have been giving this lecture, and certainly the literature on income distribution would have
been a lot smaller. Did the rise follow an earlier period of levelling? Visual inspection indicates an episode of falling inequality from 1961 to 1968, when the Gini fell by 2½ percentage points. This could be called the first part of the U. However, it was preceded by a period that shows virtually no trend. To quote Lindert, “for the US, the shift to more equal pre-fisc incomes lasted only a quarter century, from 1919 to 1953. ... Then it stopped altogether” (Lindert, 2000, page 195). The Kennedy-Johnson years apart, the US post-war pattern looks more like an aircraft take-off: horizontal for a long period and then a steep ascent. The key question concerns when it levels off. Here the break in 1993 makes it difficult to draw firm conclusions. The fact that the coefficient in 2001 was somewhat higher than in 1993 (allowing for the new population controls and expanded sample) suggests that cruising altitude may not have been reached, but the next few years will be watched with interest.

For the UK, we can see from Figure 2 that the evidence looks even more like a patchwork. Evidence from household surveys effectively begins in 1961. For the earlier years, we have to a synthetic series, based on income tax and other data, that suggests, like the US, little overall change in the Gini coefficient up to the 1960s. Then the pattern departs from that in the US in that there appears to have been a distinct fall in the 1970s. The fall was then more than reversed in the 1980s: the U is lop-sided to the right. We should note the sheer magnitude of the rise: from 1978 to 1990 the Gini coefficient in the UK rose by 10 percentage points. This is much larger than in the US, where the rise in 25 years was 5 percentage points. Any theory must explain why the UK was twice as severely affected. 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. After 1990, on the other hand, the UK data for the Gini
coefficient show only a modest if any continuation of the upward trend: the estimate for 1999 is less than 1 percentage point higher than that for 1990.

The UK evidence demonstrates one characteristic of recent changes that has been emphasised by the OECD: that most countries have seen a rise in inequality of market income: i.e. income before taxes and transfers. (This is shown by the upper dashed lines in Figure 2.) If we are interested in the impact of economic forces such as increased international competition then it is presumably market incomes that interest us most. The same story of rising market income inequality is exhibited by the Canadian data shown by the dashed lines in Figure 3: since 1981 the Gini has risen by more than 6 percentage points. At the same time, the inequality of disposable income (heavy solid line) remained unchanged up to 1996. Until that point, the tax and transfer system appears to have been successful in offsetting any exogenous forces making for greater inequality. I stress “exogenous” since market income itself is potentially affected by the existence of taxes and transfers.

What does the Canadian evidence tells us about the U-hypothesis? A supporter may discern a U-shape, but the magnitude of variation is very limited: the range in 30 years is from 35 percent at the lowest to 37.8 per cent at the highest. This raises the question as to what is a significant increase? Statistics Canada (2002) applies the rule of thumb that no weight should be attached to changes of less than 1 percentage point. This seems reasonable in the case of sampling error, with the kinds of sample size and design usually employed. But what is the economic significance? To get some idea, suppose that the tax and transfer system were approximately linear, as with a uniform tax credit and a constant tax rate. Then, if government spending absorbs 20 percent of tax revenue, a redistributive tax of 5 percentage points would reduce a market Gini of
48 percent by 3 percentage points.\textsuperscript{4} Raising the tax rate from 20 percent to 25 percent would be a major political shift, so this suggests that a change of 3 or more percentage points can certainly be taken as economically significant. On this basis, Canada is on the margins of glacial change.

The balance of opinion in Canada does indeed seem to be that the distribution is highly stable, as is witnessed by the following quotations drawn from three decades:

“Inequality in family money incomes has fluctuated to some extent since 1951 but shown no evidence of any trend” (Health and Welfare Canada, 1977, page 59).

“Income inequality in Canada has not changed significantly over the past two decades, though this apparent stability may be surprising in view of the major economic and social changes that occurred over this period [1965-1983]” (Wolfson, 1986, page 337).

“In the 1980s, Canada achieved some stability in the distribution of income, despite rising inequality of earnings” (Osberg, Erkspoy and Phipps, 1997, page 103).

These authors can be said to belong to the glacial change school rather than to the exponents of the U-turn. We should however note that, despite the reference to 1951 in the first quotation, I understand there in fact to be no national evidence for the period before 1965, when the Survey of Consumer Finances was extended to cover the whole population. Previously it had excluded the farm population that in 1961 were some 12% of the total population (Love, 1979, page 91).

At this point, I should point out that the Gini coefficient is only one summary measure of inequality; it is a particular way of reducing the whole distribution to a single number. It is perfectly possible for the distribution to change significantly but for the Gini coefficient to remain unchanged. There could be redistributive forces

\textsuperscript{4} A gross income of Y becomes a net income of (1-t)Y+A, where A is the value of the tax credit. Since A is the same for everyone (with appropriate equivalisation), the Gini is (1-t) times the value for gross income divided by the mean net income relative to the mean gross income, which is assumed to be 0.8.
working in different directions at different points. Demographic change could be causing a rise in the proportion of pensioners with relatively low incomes, while at the same time progressive taxation is reducing the shares of top income groups. Moreover, the Gini coefficient is more sensitive to transfers in the more densely populated parts of the distribution than to what is happening at the extremes. To illustrate this point, I may note that estimates by Saez and Veall (2002, Table B1) using income tax data for incomes before tax in Canada suggest that the share of the top 1 percent fell from 13.3 percent in 1941 to 7.7 percent in 1978 before rising again to 13.3 percent in 2000. This is a U-shape quite like that for the share of the top 1 percent in the US, which went from 15.0 percent in 1941 to 7.9 percent in 1977 and back to 14.6 percent in 1998 (Piketty and Saez, 2001, Table A1).

Systematic Analysis

You may well feel that my account has been anecdotal and that I have not adopted the obvious approach to testing the U-hypothesis, which is to fit a quadratic equation to the time series and see if the coefficients on time and time squared are significant (and negative and positive respectively). The problem is that, as the diagrams seek to highlight, we do not have a single consistent series for each country. There are discontinuities. The evidence is of variable quality. These considerations are not readily incorporated into an econometric analysis.

The case of Sweden (Figure 4) is an example. At face value, the data for disposable income (solid lines) indicate a clear U-pattern, with a turning point in the early 1980s. But as far as the downward movement is concerned, a lot rests on the observation for 1967, of which Gustafsson and Uusitalo say that “because of some differences between the two data sets the comparability is less satisfactory” (1990,
Gustafsson and Johansson (1999) exclude the 1967 observation from their analysis of changes in inequality over time. From 1975 the fall was only 3 percentage points and the rise to 1991 only 2.8 percentage points. Moreover, the official series, unlike the current estimates in other countries, treats single adults living at home as separate units. When they are excluded, the rise in the 1990s largely disappears: the figure for 1997 is less than 1 percentage point higher than that for 1991. Sweden looks like the UK, in having a serif on its U, but like Canada in having a much smaller overall rise in inequality. On the other hand, Finland (Figure 5) provides much clearer evidence of a U. The Gini coefficient for 1966 was 31.8% in 1966, fell to around 20%, and then rose again to 26.6% in 2000. The curve for disposable income is at present lop-sided to the left, but we do not yet know whether the trend of the 1990s will be continued. Between 1993 and 2000 the coefficient increased by more than 5 percentage points.

Turning to Continental Europe, we find support for a U-shape in the Netherlands (Figure 6), insofar as there was a marked decline from 1959 to 1977 (see Pen, 1979), which continued until the early 1980s and was then followed by a rise, although the rise was only some 2½-percentage points and the increase stopped at the end of the 1980s. In this case the U is lop-sided in the opposite direction from the UK and definitely has a serif. Finally, Italy (Figure 7) exhibits a lot of volatility. The time path of the Gini coefficient in its homeland could be a W as much as a script U. The estimate for 2000 is 4 percentage points higher than for 1991, but the series has been fairly flat since 1993.
Conclusions

The first conclusion I draw is that there is little support for the view that the overall inequality changes only at glacial pace. With the exception of Canada, all countries examined here have Gini coefficients that have varied over a range of 3 or more percentage points. What about the U-hypothesis? In a number of cases, a U-shape can be discerned. Recent rises in inequality have followed earlier episodes of income levelling. But this is not universal. In some cases the time path looks more like an aircraft take-off. In other cases the rise has been relatively modest (Netherlands and Sweden). The U can be lop-sided to the right (UK) or to the left (Finland). Where turning points can be distinguished, they vary considerably, from the late 1960s in the US, the late 1970s in the UK, through the mid-1980s in Sweden and the Netherlands, to the mid-1990s in Canada and Finland. What happens if we extrapolate the trends of recent years? In the 1990s the Gini coefficient in Canada rose by 2½ percentage points. Of the other 6 countries, two saw the Gini coefficient increase by more than 3 points over the 1990s (Finland and Italy), but in others the upward movement was modest or unclear.

The principal conclusion that I draw is that there was a wide diversity of experience, even among OECD countries, that cannot be simply summarised. This means that the explanations must in turn be sufficiently rich to allow a variety of outcomes.

2 Seeking an Explanation: Common Global Forces versus Welfare States

Diversity of outcome is indeed well illustrated by the consensus view about the major cause of rising inequality. The explanation, according to professional opinion, and to economics textbooks, lies in a shift in demand away from unskilled towards
skilled labour. There is debate about the causes of the shift in relative demand (see Burtless, 1995). It may be heightened competition from newly industrialising countries as a result of globalisation or the result of technical change biased towards skilled labour, with the introduction of ICT. Whatever the cause, 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. This is taken to be the explanation of rising wage dispersion in the US. In Continental Europe, unemployment benefits and/or minimum wages place a floor and mean that the relative wage of the unskilled cannot fall. According to this view, the demand shift explains the higher unemployment in Europe (Krugman, 1994). There is a unified explanation as to how a single cause has a differential impact on the US and on Continental Europe.

For all its attractions, the standard explanation has important limitations – see Atkinson (1999), where I criticise the application of trade theory. Here I consider three limitations that apply to both trade and technology versions of the demand shift explanation in its conventional form. The aim of making these criticisms is to widen the way in which income distribution is viewed. It is a complex phenomenon, and there are many forces at work. Indeed, I am very conscious that my coverage here leaves out many important elements of the story. These include changing demographic and family structure, changes in the nature of employment and in labour market institutions, differences in the social norms and values, to list just a few.
The supply response of labour is missing from the textbook account. Yet the supply of skill is the classic application of human capital theory. Suppose that acquisition of a skill requires $S$ years of training, during which the person is paid nothing, so that the earnings career is postponed by $S$ years. To provide the same present value of earnings over a fixed working life, the earnings of skilled workers have to be higher by a factor $e^{rS}$ where $r$ is the real interest rate. If there are no barriers to acquiring skills, then this factor determines the long-run equilibrium wage differential. If the labour market were initially in equilibrium, then a rise in the skill premium, caused by increased relative demand for skilled workers, will induce an increase in the supply of skilled workers. A rise in the premium for college educated workers means that more people choose to stay on at college. This example shows that the response takes time. But in the case of the US, we are talking about a rise in earnings dispersion that began more than a generation ago. Surely by now the supply would be increased. If supply has increased, then why has the premium not adjusted downwards again?

If the supply of skilled labour has not fully responded, then we have to add to the conventional story an explanation as to why there are barriers to entry into skilled employment.

One such barrier is the capital market. People may not be able to borrow to finance their education, and their parents may lack the necessary capital. Families may be trapped in a low level equilibrium (Atkinson, 1997). This process may have been exacerbated by the fact that real interest rates are now higher than they were in 5 I am referring here to the standard presentation. There are more sophisticated models that do take account of the supply side: for example, the model of trade and human capital investment of Findlay and Kierzkowski (1983).
the 1970s (when they were negative). Borrowing has become more costly. To the extent that this is the case, we have arrived at a quite different explanation of increased earnings dispersion: that there has been an increase in the factor $e^S$. The explanation is to be found in the capital market rather than the labour market.

**From Factor Prices to Personal Incomes**

The standard explanation begins and ends with the relative wages of skilled and unskilled workers. However there are several steps between such relative factor prices and the distribution of disposable income among households (the variable examined in the first part of the lecture). These steps are typically ignored, but are potentially important. Suppose that John Smith loses his job as an unskilled steelworker, and in the US has to take a lower paid job in the service sector. The impact on the household disposable income cannot be predicted solely from this information, nor can we place him in the distribution without knowing about his other sources of income, the income of other members of the household, the size and composition of the household in which he lives, and the consequential changes in taxes and transfers. When one has worked through the additions and subtractions, it is not at all clear that one ends up with the number one first thought of.

This can be important. We have implicitly been assuming that the low skilled worker is at the bottom of the distribution, but it is quite possible that a person may have a quite different rank in the earnings distribution from the rank of their household in the distribution of disposable household income adjusted for family size. For example, a person’s ranking depends on the size and composition of the household. It is a very different situation if John Smith is the sole earner in a household with 4 children from that where he is a single man. Where his partner is in
paid work, then the family situation depends on her earnings. We cannot assume that all male unskilled workers are married to unskilled workers. If, at the other extreme, every unskilled worker is married to a skilled worker (and there are equal numbers, all married), then a change in the skill premium does not affect the household distribution of income. There will be a change in the distribution within the household, and this may well be significant, but it is not captured in the usual statistics. Moreover, there are other sources of market income besides earnings, notably the role of capital income. John Smith may be like the soldiers who, in R H Tawney’s phrase, went off to the First World War carrying the sum total of their possessions. But today it seems more likely that he has assets, both real property and financial assets, and liabilities. The liabilities may exceed the assets for some people, but the household sector as a whole has substantially positive net worth. Capital income is not limited to a minority capitalist class. It is therefore surprising that capital is entirely missing from the textbook account of rising inequality. The production function should surely include capital as well as skilled and unskilled labour? Globalisation, and other forces influencing the skill premium, is likely to have affected the rate of return to capital. If John Smith has shares in companies that are able to import cheaper products, then there may be a compensating gain from increased dividends.

Then we come to the impact of the government. Net of tax, the change in income associated with a fall in the earnings of the low paid is reduced by the existence of progressive taxation. If income tax were 20%, and social security tax were 10%, nearly a third of each $1 lost is a loss to the Treasury rather than to the worker. At an overall scale, with a marginal tax rate of 30%, a linear tax system means that a 5 percentage point rise in the Gini coefficient for market incomes translates into a 3½ percentage point rise in the Gini for disposable income. On this
basis, we would expect to find differences across countries according to the degree of
progression of their tax systems. This might lead us to expect a larger rise in
inequality of disposable income in the US and the UK, where the degree of
progression has been reduced. But we have also to remember that these countries have
in-work benefits that generate high implicit marginal rates of tax: the Earned Income
Tax Credit in the US and the Working Families Tax Credit in the UK. These benefits
are tapered with income, and – for much of the relevant range – increase the marginal
tax rate. John Smith would find in the UK that his tax credit would rise to offset part
of the fall in gross earnings; the implicit marginal tax rate can be 70% or higher. Tax
benefit policy therefore considerably moderates the impact of increased wage
dispersion.

For these reasons, a rise in inequality of individual gross earnings may be
considerably moderated when we follow through the implications for the distribution
of household equivalised disposable income. We can see how it is possible, in the
words of Osberg, Erkspoy and Phipps cited earlier, for Canada to achieve “some
stability in the distribution of income, despite rising inequality of earnings”(1997,
page 103).

The Welfare State

Finally, let us turn to consider the welfare state as a whole. In the international
competition story, the welfare state plays a two-fold role. On the one hand, it is held
to cause unemployment to rise – the aspect on which attention has focussed - on the
other hand, it mitigates the financial impact of that unemployment. If the
unemployment benefit is set at the level required to avoid financial poverty, then the
low skilled priced out of their jobs are still guaranteed an income at or above the
poverty line. As has been observed, the rise of unemployment in Europe has not been associated with a commensurate rise in financial poverty (Atkinson, 1998).

The welfare state has undoubtedly offset much of the increase in inequality of market income, which has happened for a number of reasons quite apart from unemployment, such as the ageing of the population. There has been a large rise in the proportion of the population living in households with little or no market income. The UK experience shows for example a steady rise in the inequality of market income over much of the post war period, with a 10-percentage point increase between 1961 and 1984. Taxes and transfers were however sufficient to offset the rise in inequality of market income, so that there was no increase overall for the Gini for disposable income. Does this mean that the arrival of Mrs Thatcher in 1979 made no difference? The answer is that the Conservative changes in tax and benefit policy began to have effect in the mid-1980s, when the picture did indeed alter dramatically. Inequality in market income continued to rise, but between 1984 and 1990 the Gini coefficient for disposable income increased much more sharply. Measured in terms of the difference between the two coefficients, the redistributive contribution of transfers and taxes fell from 21 percentage points (the difference between the two Gini coefficients in 1984) to 16 percentage points in 1990. ⁶

The arithmetic impact of taxes and transfers is summarised for four countries in Figure 8, which shows the reduction in the Gini for market income achieved by taxes and transfers. For three of the four countries the effective reduction increased in the early part of the period, but has shown a tendency to decline. How far was directly linked to policy decisions? In the UK, the answer is clear. A key policy variable for the elderly is

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⁶ It should be stressed that these calculations are purely arithmetic and make no allowance for the problem of incidence. The distribution of market income is not the same as the distribution of income in the absence of taxes and transfers.
the level of the flat-rate state pension. In 1974 the then Labour government made a
distinct improvement in the position of the state pension relative to the net earnings, and
this was maintained until the early 1980s. The Conservative Government then decided to
change the basis for up rating from earnings to prices, a change which is important in
view of the significant growth in real earnings. Cumulated over years, this caused the
basic pension to fall as a percentage of the net take-home pay of an average worker. If
we look at unemployment benefit, we discover that the response of the UK Conservative
Government to rising unemployment in the 1980s was to restrict benefit generosity and
entitlement. The effect of all these policy changes has been large. Redmond, Sutherland
and Wilson (1998, Table 4.3) have examined the total effect of all tax and benefit
changes over the period 1978/79 to 1996/7. They estimate that the 1996/97 tax and
benefit system, compared with that in 1978/79 indexed in line with per capita GDP,
raised the net tax burden for all decile groups except the top, with large losses in the
bottom 3 decile groups. With the 1978/79 system, the Gini coefficient would have been
lower by about 5 percentage points.

A similar story may be told for Finland. For a significant period, most notably
during the deep recession in the early 1990s when Finland suffered from the collapse
of the Soviet economy, there was rising market inequality without a comparable rise
in inequality of disposable income. As described by Uusitalo, “income distribution
remained remarkably stable during the recession years. Increased factor income
inequality, which probably can be attributed to extremely high level of
unemployment, was compensated for by the increased impact of social transfers, so
that equivalent disposable income distribution has not changed.” (2001, page 3). But
“after the recession income inequality has increased, due to decreased redistribution
through transfers and taxes and the rapid growth of property incomes” (Uusitalo, 2001, page 3).

The fact that redistributive “effort” appears to have fallen in the 1980s (UK) and 1990s (Canada and Finland) could be a result of global competitive pressures. There is a widespread perception that the European welfare states are threatened by globalisation, and that Europe has lost much of its freedom of manoeuvre. The implicit economic theorising does not however stand up to close examination of the full general equilibrium of the world economy. As Krugman has put it, "competitiveness is a meaningless word when applied to national economies" (1994a, p 44). This may surprise non-economists. If the UK seeks to finance improved state pensions by an increase in the employers' payroll tax, this increases wage costs and raises the prices of UK goods and services. UK firms find it harder to sell their products abroad. Or, if export prices are not increased, then exporting becomes less profitable, as the margins are smaller. This sounds very much like an expansion of the welfare state leading to Britain being less competitive in world markets. One has, however, to consider the impact on the exchange rate. If exports fall, and imports rise, sterling is likely to depreciate so that exports become cheaper in foreign currency or exports receipts become more valuable. From this analysis, one can see that there is a key distinction between trade within a currency union and trade between currency areas. Regarding the latter, Ferrera and Rhodes have stressed that “while ... financial market globalisation limits government policy autonomy ... in the first instance ... it is European integration and economic and monetary union that really count ... exerting a much more significant set of constraints than international trade” (2000, page 2). It is precisely this link with economic integration that makes so important the recent developments of the European Union social agenda. The agreement of common
objectives and indicators for social inclusion (to which I referred earlier) limits the risk of fiscal competition within the European Union, and externally any greater costs of the European welfare state can be offset by depreciation of the euro vis a vis other currencies.

Conclusions: Prospects for the Future

Those drawing attention to rising income inequality are right to be concerned about the future. With the possible exception of Canada, there has been significant change in the distribution of income in all seven OECD countries examined here. The glacial change hypothesis must be rejected. In some countries, such as the UK, the increase in recorded inequality is considerably larger than in the US. At the same time, these recent changes should not be extrapolated into an inexorable rise in inequality in the future. There are at least three reasons for not drawing such a conclusion. First, the empirical evidence suggests that in some countries the U appears only in attenuated form and there may be a serif on the U. Secondly, the distribution of income is a highly complex phenomenon, and it would be surprising if a single explanation sufficed for all countries and all periods. Globalisation and ICT may together have reduced the job opportunities of those with low levels of skill, but there are also other forces in operation and these forces may change direction. For example, part of the explanation of rising inequality, especially at the top of the distribution, is the rise in the rate of return to capital. If the rise is unwound in the next decade, with investors enjoying lower yields than in the 1980s and 1990s, we may expect the increased inequality to be reversed. Thirdly, we must not lose sight of the role of policy. Changes in tax and social transfer policy have played a major role in increasing inequality in a number of countries. To a considerable extent the
development of inequality in disposable incomes – what matters to our citizens – lies in our own hands.
Data Sources

Figure 1:
B  Brandolini, 1998, Table A1, col 1a.
C  Budd, 1970, page 255.
E  U.S. Census Bureau, 2002, website, Historical Income Tables, and
U.S. Census Bureau, 2002, Table A-2.

Figure 2:
C  Atkinson and Micklewright, 1992, Table BI.1.
F  1961 to 1974 from Royal Commission on the Distribution of Income
1982, page 100; otherwise as F.
from Clark and Goodman, 2001, Figure 2.

Figure 3:
Statistics Canada, 2001, Table 705.

Figure 4
I  Gustafsson and Uusitalo, 1990, page 89.
J  Gustafsson and Uusitalo, 1990, page 85.

Figure 5:
Uusitalo, 2001, page 4; 1987 onwards from Statistics Finland website:

Figure 6:

Figure 7:
B and C  supplied by Bank of Italy.

Figure 8:  see Figures 2, 3, 4, and 5.
References


Figure 1  US Income Inequality 1945-2001

- Estimates of Budd
- CPS survey
- OBE synthetic estimates

Break
Figure 2  UK Income Inequality 1949-2000

- ET Market income
- Synthetic estimate
- After tax income
- ET Disposable income
- IFS equivalised disposable income
Figure 3  Canada Income Inequality 1965-1999
Figure 4  Sweden Income Inequality 1967-1997

Equivalised market income

Equivalised disposable income

"Official series"

Without single adults at home being treated as separate units
Figure 5  Finland Income Inequality 1966-2000

Equivalised market Income

Equivalised disposable income

Break
Figure 6  Netherlands Income Inequality 1947-1997
Figure 7 Italy Income Inequality 1968-2000

- Household weights disposable income
- Excluding interest and dividends
- Excluding imputed rent, interest and dividends
- Person weights equivalised disposable income
Figure 8 Reduction in Gini for Market Income

Reduction in Gini %

Sweden

Finland

UK

Canada