Putting people first and macro-economic policy[1]

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The principal message of this paper is that, rather than starting with Gross Domestic Product (GDP) and the instruments of economic policy, and then considering the social consequences, the policy-making process should be turned on its head. The starting point should be the living standards and well-being of individuals and their families. Macro-economic policies, and indeed all policies, are means to an end, not ends in themselves. Their justification should be found in their service to our citizens.

Starting from individual well-being is right for two main reasons. The first is that it is intrinsically the proper approach and one that can be provided with an ethical foundation in principles of equity and social justice. The fundamental concern of the policy-maker should be with the interests of individual citizens. Social welfare should be defined in these terms, not in terms of macro-economic aggregates such as growth, inflation or employment. Of course, it is important to monitor these variables, but they should be interpreted in the light of their meaning for individuals and families.

The second justification for commencing with individual well-being is that such an approach is essential in order to legitimise the measures being undertaken as part of the achievement of macro-economic stability and growth. There has to be democratic support, and such support depends on the impact on individual citizens. We have to know who is gaining and losing from austerity measures in the short-term and from economic growth in the longer-term. This was stressed by ECFIN in its Issues Note on "Economic growth perspectives for Europe", "the growth process cannot enjoy sustained democratic support if its fruits are reaped by just a privileged few" (ECFIN, 2012). Where macro-economic policies are perceived as unwarranted or unjust, political support will shift towards extremist political parties.

There is likely to be widespread agreement that – for these two reasons - macro-economic policies are means not ends, and that the ultimate goal is individual well-being. The need for new measures of economic progress was recognised in the Commission publication "GDP and beyond" (European Commission, 2009). There was general acceptance of the recommendation of the Stiglitz-Sen-Fitoussi Commission on the measurement of economic performance and social progress that "while it is informative to

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track the performance of economies as a whole, trends in citizens' material living standards are better followed through measures of household income and consumption" (Stiglitz, 2009, paragraph 23).

But what is agreed "in principle" has yet to be turned into regular practice. GDP remains the headline news item. While Eurostat, in conjunction with OECD and other bodies, is taking significant steps in the right direction,[2] the design of policy and presentation of macro-economic policy remains focused on GDP. The objectives of policy-makers are perceived as being far-removed from a concern with the impact on individuals and their families. Radical steps are needed to engage the individual citizen. At present, neither EU nor national government policies are tailored to the person in the street, and this is one major reason why people are indeed out on the streets in protest.

The aim of this paper (which builds on Atkinson, 2011) is to make the case for moving further, and more speedily, towards adopting a new perspective for the measurement of changes in economic performance based on the impact on household living standards and on an explicit consideration of distributional consequences. The paper recognises that a number of objections may be raised to such a process and seeks to address these objections.

The first objection is that changing the headline indicators would make no difference. In section 1, I show how we would have had a different picture of developments in the Euro-zone over the past decade if we had looked at household disposable income rather than at GDP, and how, over the longer run, the distributionally-adjusted growth performance of the United Kingdom was less impressive than appeared from looking only at mean income.

The second objection – considered in Section 2 – is that, whereas there is general agreement on the measurement of GDP, the move to a new headline indicator would shatter the consensus, since there are conflicting views about the appropriate definition of social justice and since the democratic process will generate many different views about the appropriate performance indicator. The reader may feel that the box was best left unopened. This paper argues however that this would be a mistake. The different elements in the new indicator are discussed in turn, and the issues of definition are addressed. Definitions indubitably involve social judgments, but so does the current headline indicator, where the underlying social values are implicit rather than explicit. In my view, it is better to make these judgments explicit and to recognise that there may be a range of different values.

The third objection is that the move to a headline indicator that takes account of household composition and of income distribution means that there will be lengthy delays in their appearance. Writing in January 2013, I can access GDP figures for the third quarter of 2012, whereas the most recent income distribution data published by Eurostat

[2] For example, from the October 2012 edition of its quarterly household news release, Eurostat has replaced the indicator "Household real disposable income" by "Household real income per capita". It states that "this change stems from work on measuring progress, well-being and sustainable development (GDP and beyond)" (footnote 1 on page 3). Later in the paper I draw on the work of the OECD-Eurostat Expert Group on comparisons of national income and household survey-based estimates of total income.

relate to 2010. These delays are particularly important when we focus – as in this paper – on the *changes* in economic performance. In section 3, I consider two methods – already being explored by Eurostat and DG Employment – of having more current data.

This paper is largely about statistics. Statistics are often seen as an anorak subject, but they are of key political importance. The political success and survival of governments depends on the way in which their performance is measured. It is therefore essential that these measures reflect our ultimate objectives. That is why we need to change the headline indicators.

1. Will changing the headline indicators of progress make a difference?

In the autumn of 2012, statistics showing that GDP in the United Kingdom (UK) grew by 1 per cent in the third quarter of 2012 were widely reported in the media and heralded by the government as a sign of the success of its economic policies. But this announcement probably meant little to the UK average citizen, who could see no connection between a statistic produced by the Office for National Statistics and their own economic circumstances. Suppose instead that the government had published the change in the previous quarter in household disposable income, adjusted for family size and distributionally adjusted. This too would require explanation. The precise form of the definition requires careful consideration, and there may be differences of view about how it should be measured. But it starts from a concept that is immediately recognisable: household income.

In arguing for household income as the headline indicator of progress, I am not suggesting that GDP is unimportant. The growth of GDP is a key to explaining what is happening to the well-being of households. But we should start from the household perspective and then drill down. To understand how GDP is important, we need to understand how household income moves in relation to GDP. If they move together in lock-step, then the importance of GDP will become apparent to the citizen. If household income rises more or less than GDP, then we need to know why this happens. The same applies to distribution. If all citizens share equally in growth, then macro-economic aggregates are enough to judge economic performance. If, as has been claimed, "we are all in it together", then the impact of the economic crisis can be seen from the national accounts. But opposition to austerity measures, and other macro-economic policies, comes from those who believe that the burden is not being equally shared. To investigate this, we need to examine the distributionally-adjusted level of incomes.

Would it, however, make a difference? In what follows, I give two examples to show how adopting the proposed headline indicator could seriously modify the conclusions that we draw, both in the short-term and in the longer-term, about macro-economic policy.

Does it make a difference? Growth

The potential quantitative importance of the adjustment to a household basis is illustrated in Figure 1. The graph compares the movements in GDP and in household disposable incomes in the Euro-zone (17), both expressed in real terms to allow for price changes (see the note to Figure 1). There are two striking features. The first concerns the period of the economic crisis. While GDP fell sharply in the Eurozone in 2008 and 2009 – a fall of 5.7 per cent – household disposable incomes were broadly maintained, at least until the end of 2010. Automatic stabilisers and stimulus packages were apparently successful in protecting household incomes during the first years of the economic crisis. As was noted in the report *Employment and Social Developments in Europe 2011,* "automatic stabilisers and (limited) discretionary measures have played an important role in supporting household incomes" (European Commission, 2012, page 33).[3] This is a remarkable, and little heralded, achievement. I find it surprising that our political leaders have not made more of this. More attention should have been given to the success in maintaining household incomes in the first stage of the crisis; if this had been flagged up more forcefully, then it would have been easier politically to ensure democratic support for macro-economic policy.

The second striking feature of Figure 1 is that in the first part of the period, up to the onset of the crisis in 2007, household disposable income rose less than GDP. The annual growth rate from 1999 to 2007 was 2.5 per cent for GDP, but only 1.9 per cent for household disposable income. Looking to the future, it seems probable that, when steady growth in Europe is resumed, household disposable incomes will grow less rapidly than GDP, and this needs to be made apparent to the citizens of Europe.

Does it make a difference? Distribution

The impact of future growth on Europe's citizens depends not only on the growth of mean income but also on its distribution. The potential effect is illustrated by the long-run historical experience of the United Kingdom (UK) in Figure 2, which shows the impact of the distributional adjustment applied to mean household income, using the Gini coefficient (discussed below). When account is taken of rising inequality, the annual growth rate of household income falls from 1.9 per cent to 1.5 per cent – a significant difference. Over the 50 year period shown, it makes a difference of a fifth to the end level of performance. The distributional adjustment also changes the relative performance in different periods. There is no longer a marked difference between the 1980s of Mrs Thatcher and the 1990s of Mr Major and Mr Blair. Whereas mean income grew at 3.2 per cent per annum in the 1980s, compared with 2.1 per cent in the 1990s, the distributionally adjusted growth rates are virtually the same (2.1 per cent in the 1980s and 2.0 per cent in the 1990s). The worsening of the income distribution in the 1980s effectively wiped out the gain from the higher growth rate.

Summary

The issues discussed here are therefore quantitatively important ones.

[3] The figures in this report go up to 2009, and are drawn from the study by Jenkins et al (2013).

If we adopt this shift in perspective, then a number of questions have to be addressed. First, there is the definition of the different terms in the decomposition of the headline indicator? For example, how do we define inequality? What do we mean by household income? Secondly, there is an obvious difference between the macro-economic aggregates in Figure 1, for which we have quarterly data up to 2012, and distributional data, such as those for the UK in Figure 2, that typically appear only with a considerable delay. How can we obtain a more up-to-date picture? These questions are addressed in the next two sections.

2. Definitions and judgments

The choice of definitions may be seen in terms of the five stages of adjustment required to move from GDP to the new indicator proposed here covering households (denoted by HH). The move affects both concepts and sources. Conceptually, for example, we have to replace per capita calculations of income by measures that make allowance for differences in household composition via a process of "equivalisation". In terms of sources, we have to move from national accounts (NA) to survey-based household (HS for Household Survey) income. The five adjustments to be applied are:

Current headline indicator = real GDP (per capita)[4]

x Mean NA HH per capita disposable income/GDP per capita (Adjustment 1)

x Mean HH per capita spendable income/Mean NA HH per capita disposable income (Adjustment 2)

x *Mean HS HH per capita disposable income/Mean NA HH per capita spendable income (Adjustment 3)*

x Mean HS HH equivalised disposable income/Mean HS HH per capita disposable income (Adjustment 4)

x Distributionally adjusted HS HH equivalised income/Mean HS HH equivalised income (Adjustment 5)

= **Proposed new headline indicator**.

(Adjustment 3 is shown in italics since it is not certain that an adjustment should be made – see below.) The adjustments affect both the level and the change in the indicator. Here I focus particularly on the change over time. In what follows, I illustrate the five stages with reference to the experience, either of the EU, the Euro area, or of individual countries.

[4] As in the Selected Macro-economic Indicators in the Annex to the Macro-economic Report to the Annual Growth Survey 2013. In the macro-economic press releases of Eurostat, the current indicator is real GDP, not expressed per capita.

Households versus whole economy

The elements of Adjustment 1 are obtained directly from the national accounts. These were used in Figure 1 which showed how real "household disposable income" in the Euro area (17) moved in relation to the volume of GDP.[5] The change in the ratio, indexed at 1 in 1999 Q1, is shown in Figure 3. The contra-cyclical movement is clear, but it is also apparent that there is a medium-term downward trend. It would be interesting to see how far this pattern is to be found in individual Member States and over a longer time perspective. How far is it the case that a focus on household disposable income would show a lower growth rate than GDP? Does this affect international comparisons of growth rates?

Spendable income (Adjustment 2)

The term household disposable income in the national accounts needs however some deconstruction; it is not the same as "spendable income". In the early days of national accounts, this variable was closely related to the amounts reported in income tax returns, and hence was easily recognisable. The definition has however become progressively more extensive and the current Eurostat definition of adjusted gross disposable income includes several items that the person in the street may not recognise as part of income.

The possible effects of such an adjustment is illustrated in Figure 4 for the United Kingdom, where in moving to spendable income (Adjustment 2) we modify the definition in a sequence of steps. The first is the allowance for the change in households' net equity in pension funds. Step 1 shows the effect of omitting this allowance. The second, and larger, allowance is for the value of individual services which households receive free of charge from the government, such as health, educational and cultural services. Step 2 shows the effect of omitting this item; it is apparent that it contributed a sizeable amount to the growth of the national accounts figure. The final element included in the Eurostat definition is an imputation for the rent attributable to owner-occupiers for the services provided by their houses. Step 3 shows the effect of omitting this allowance. All of these elements of the national accounts figure for adjusted household disposable income have a clear logic. The definition makes sense. But it is not particularly intuitive. The non-economist would acknowledge that they do indeed benefit from public services and from not having to pay rent, and that in the future they may benefit from the pension funds. However, these are not spendable income, and over time the gap has widened. Between 2001 and 2011 the ratio of spendable income to national accounts household income in the UK has fallen from 0.77 to 0.71 – see Figure 5.

The particular deductions made in Figure 4 and Figure 5 may be challenged, but my main point is that the definition of income is not simply a matter for national accountants. National accounts are very important, and I fully accept that the concepts employed for purposes of economic management may need to depart from those usually understood in everyday speech. This has been well expressed by Fesseau, Wolff and Mattonetti:

[5] Figure 1 showed GDP and household income in total, not per capita. The ratio is evidently the same as for the per capita variables.

"national accounts rules go beyond the households" self-perception. In fact, the idea of producing a set of systematic and detailed descriptions for a total economy is to introduce some concepts that are not immediately understood by households or, in any case, that are not consistent with their perception" (2012, page 13). But, by the same token, the national accounts cannot be the only basis for assessing economic performance. To evaluate the changing state of the economy, we have to relate the national accounts to variables that are meaningful in terms of the everyday experience of individual citizens.

Household surveys versus national accounts (Adjustment 3)

Adjustment 3 takes us from national accounts as the source to the use of individual-based data, whether from surveys or administrative registers. Such data are required if we wish to take account of household composition, not simply to divide by the number of people, and if we wish to take account of the distribution of income. At this point, we enter the area of reconciling macro (national accounts) and micro (household surveys) estimates, the importance of which has been recognised in the establishment of an OECD-Eurostat Expert Group on "Disparities in a National Accounts framework". The work of this Group has been summarised, up to August 2012, in Fesseau, Wolff and Mattonetti (2012). Such comparisons have long been conducted at national level (for example, Atkinson and Micklewright, 1983, for the UK, and Kavonius and Törmälehto, 2003, for Finland) and there have been earlier cross country comparisons (for example in the OECD report by Atkinson, Rainwater and Smeeding, 1995, Section 3.6, and Törmälehto, 2009).

In building a bridge between national accounts estimates of income and household surveys of income, it is important to bear in mind a number of ways in which these sources may differ:

- Timing: the income may relate to different time periods (this is particularly a problem where the survey questions cover a period shorter than a year);
- The national accounts may cover not only the S14 household sector but also non-profit organizations serving households (S14 + S15);
- The household surveys typically exclude the non-household population: the institutional population and others who are not living in households such as the homeless, who are in principle covered by the national accounts;
- The national accounts impute a number of income components that are in most cases not available in household surveys (although a number of these – such as the value of government services consumed by individuals – may already have been deducted in Adjustment 3).

Neither source may correspond to exactly what is desired. We may for example ideally want to exclude non-profit organizations serving households but to include the non-household population. In the OECD-Eurostat Expert Group study, four countries made adjustments for the latter, mainly by using a percentage of the population derived from demographic statistics (Fesseau, Wolff and Mattonetti, 2012, page 6).

The preliminary results of the OECD-Eurostat Expert Group (Fesseau, Wolff and Mattonetti, 2012, page 11) are based on national studies, typically for the years 2008 or 2009, that have sought to reconcile differences such as those listed above. Overall, for 19 countries, disposable household income averaged 84 per cent of the national accounts total, with a range from 47 per cent to 126 per cent. In the case of the component wages and salaries, the average was higher at 91 per cent and the range narrower: from 65 per cent to 107 per cent. For self-employment income, the average was lower at 72 per cent and the range wider: from 14 per cent to 163 per cent. While there are some definitional issues, including the treatment of depreciation,[6] the poor match for self-employment income is of concern. Fesseau, Wolff and Mattonetti (2012) discuss a number of the reasons for the macro-micro differences. On the side of household surveys, one thinks naturally of differential non-response and under-reporting. Where response rates differ according to income level or to income composition, then the grossed-up survey results may mis-represent the income totals (see Atkinson and Micklewright, 1983, section 2.2). Under-reporting, occurring either because a source is omitted in survey responses or because the amount is under-stated, causes the household survey totals to be too low. Fesseau, Wolff and Mattonetti report that, on the side of the national accounts, "most compilers are making an adjustment for deliberately under declared activity affecting the balance item. This adjustment can have a strong impact on the final value. Indeed, five countries report that it represents more than 50% of the final mixed income value" (2012, page 14). They go on to comment that such an adjustment "has a quality difficult to assess". Since many people tend to assume that national accounts are the "gold standard" to which household incomes should be adjusted, it is important to note such qualifications to the national accounts estimates. In the same spirit, we should note the uncertainties surrounding the elements of the national accounts obtained as residuals. As was observed long ago, "like all figures obtained as residues, the estimate of personal income from rent, dividends and net interest cannot be regarded as accurate" (CSO, 1968, page 103). Great improvements have undoubtedly been made, but it remains the case that questions must be asked about both sides of the account.

What do such considerations imply for the adjustment to be made in the present case? On the "gold standard" view, that the deficiencies lie with the household surveys, no adjustment at all should be made. But where the differences arise on both side of the account, adjustment may be necessary. In considering this, we need to bear in mind that our focus here is on the measurement of change over time. To this extent, it would not affect the calculations if the household survey (HS) income total were always 84 per cent of the national accounts (NA) total. Problems arise when the ratio changes over time. (In this respect, it would be valuable if the OECD-Eurostat Expert Group could extend its comparisons to other years.) In that case, an adjustment should be made to the extent that, for example, the national accounts have changed the allowance for under-reporting. On the other hand, where the ratio has fallen on account of increased non-response by high-income groups, no adjustment should be made.

Equivalisation (Adjustment 4)

[6] The depreciation reported in surveys typically reflects the allowances made according to tax accounting rules, whereas the national accounts estimate current replacement cost.

The use of *equivalence scales* allows for the fact that the effective value of economic resources depends on how many people, of what age, live in a household. The literature is technical, but the basic concept is readily conveyed. Two people cannot live as cheaply as one, but they can achieve some economies of scale. Small children do not eat as much as working adults. It is for this reason that the OECD applies an equivalence scale of 1 for the first adult, 0.3 for all children under 14, and 0.5 for additional persons aged 14 and over (the so-called OECD "modified" scale). The well-being of a household is then judged by its income relative to the scale relevant to that household. This means that a couple with 2 children aged under 14 require an income of 2.1 times X in order to reach the equivalent standard of living to a single person with an income of X. This may be contrasted with the per capita calculation where they would require 4 times the income to reach an equivalent standard of living. In that sense, people living together "produce" more well-being from a given money income.

An adjustment for household composition is important both in the short-term and in the longer-term. In the short-term, one of the responses to the economic crisis has been that young people are less likely to leave home. Such income-sharing means that we need an income of 1.5X to reach a standard of living of X each, rather than 2X. In the reverse direction, in the longer-term, one use to which European countries have put their increased prosperity takes the form of more people living independently – particularly younger adults and the elderly. Simply counting national income misses this increase in the "cost" of living.

Equivalisation can make a major difference to the measured standard of living. Figure 6 shows the effect for Italy over the period, using two different equivalence scales: the modified OECD scale and a square root scale. With the latter, a household of 4 has a scale of 2, which is close to the OECD modified scale value of 2.1, but it would be rather different if the 4 members of the household were adults, in which case the OECD modified scale value would be 2.5. With the OECD modified scale, in 1987, the mean equivalised income was 156 per cent of the income if everyone had lived on their own, so that household formation made a major difference. Over time, this difference was reduced, as households became smaller, reaching 146 per cent in 2010. With the square root scale, the fall would be more marked: from 180 per cent to 162 per cent. This shows that the choice of equivalence scale affects both levels and trends of measured well-being.

Distributional adjustment (Adjustment 5)

Adjustment 5 involves making explicit distributional judgments. This may be seen as a radical step, but such judgments underlie most policy evaluation. The measurement of national income implicitly makes the judgment that €1 is valued the same irrespective of who receives it. But that is only one of many different judgments that could be made. There is a wide choice about the weight that should be attached to an extra €1 received by a person. We may agree that the weight should be positive (or at least non-negative), and that it should be smaller the larger their equivalised income, but disagree about how rapidly it should decline. Mirrlees (1978, page 134) has suggested that the marginal valuation of income should follow an inverse square rule, so that the weight attached an extra €1 to a person with income Y is proportional to Y^{-2}. This means that the weight

attached to an extra €1 received by a person with an income of 2X should be a quarter of that for a person with an income of X. More generally, the weight could be proportional to $Y^{-\varepsilon}$, where ε is a parameter. An elasticity of 2 has been taken by a number of economists when considering the rate of discount to be applied in climate change analysis (see, for example, Weitzman, 2009). The US Census Bureau (2012), on the other hand, takes much lower values when measuring income inequality: between 0.25 and 0.75.

Distributional weights are implicit in the use of summary measures of inequality, such as the Gini coefficient, used in Figure 2 discussed earlier. Amartya Sen (1976) has shown how weights based on a person's rank in the distribution (so that a person who is F per cent of the way from the bottom receives a weight of 2(100-F)/100) imply that the distributional impact should be measured by the Gini coefficient. The implications of applying such a distributional adjustment based on the Gini coefficient in recent years are shown in Figure 7. The bar chart shows the *change* in the distributional adjustment between 2004 and 2010. A positive change means that income inequality has fallen, so that distributionally adjusted income has risen. For example, the Gini coefficient in Poland was 0.356 in 2004 and 0.311 in 2010, giving the 7 per cent improvement shown in the first bar. Member States with less than a 2 per cent change are omitted, but there are changes greater than this in 11 Member States. Figure 7 shows the distinct downward shift in the cases of Bulgaria, Germany, Spain and Denmark. In contrast, the distribution became less unequal by 5 per cent or more in Poland, Portugal and Lithuania, and, to a lesser extent, Belgium, Estonia, Italy and the UK.

The Gini coefficient is widely used, but, as argued in Atkinson (1970), it may be better to make explicit the underlying distributional values. The use of the elasticity ε is a good way of recognising the diversity of judgments and we may be well advised to follow the US Census Bureau in providing results for a range of values (although not in limiting ε to be less than 1). Another possibility, used by the European Commission (2012, page 25) in its analysis of the changes in the distribution between 2007 and 2009 is to take the median income, which has the advantage of ease of explanation. The adjustment 5 would then be based on changes in the ratio of the median to the mean.

3. How can we generate sufficiently up-to-date indicators?

An obvious objection to the proposal made in this paper is that the headline indicator would be hopelessly "out of date", since it depends on distributional information that is only available with considerable delay. The data in Figure 7 relate to 2010, and in some cases to 2009. I would, however, turn this objection around and say that it is a scandal that we are making policy without any real idea as to who is bearing the burden of austerity programmes. How can national governments or the Commission discuss fiscal and employment policy late in 2012 on the basis of data from no recent than 2010?

What can be done? Two steps can be taken. The first is to speed up the processing of the essential distributional data: for the European Union, the data collected in the European Union Survey of Income and Living Conditions (EU-SILC). The second step is to use the available past distributional data to forecast the current situation ("now-casting).

Speeding up data availability

The current timetable for EU-SILC data may be set out schematically:

Income year n-1	Interview in year n	Processing and release of data
	Collect income data	Or attach data from registers

The current deadline for submission of data by Member States is the end of November in year n+1 (Mercy, 2012, page 8), so that income received in January 2010 would, in the case of interview, be recorded in 2011 and have entered results delivered for a deadline in November 2012 – nearly three years later.

There is clearly scope for improving timeliness and this is a major concern of the Task Force established by Eurostat to review EU-SILC. In considering this issue, it is important to distinguish between income data collected in the interview and cases where the income data are taken from administrative registers. It should be noted that this is not a "hard and fast" distinction between "register" and "non-register" countries. As is noted by Montaigne and Di Meglio (2012), countries making use of administrative registers differ in the extent in which these data sources are used: "for the income domain, Denmark, Finland, Ireland, the Netherlands, Slovenia, Sweden, Iceland, Switzerland and Norway take data mostly from registers while some other countries can only extract information for some income components and/or for certain subpopulations" (Montaigne and Di Meglio, 2012, page 2).

One set of measures to improve timeliness consists of those that are intended to accelerate the process while maintaining the present income definitions. It may be possible to speed up the processing, although this may require additional resources – resources that are hard to obtain in times of budget cuts. It may also be possible to make early estimates of income variables before the full round of checks have been completed. The Spanish statistical office (INE) has shown how such a speeding-up can be achieved: on 22 October 2012, INE published the provisional results for incomes in Spain in 2011. This demonstrates that the lag can be significantly reduced. On this basis, the Eurostat delivery date – at least for priority data such as those on income – could be brought forward by twelve months.

The scope for bringing forward the delivery date may however be limited where the source of the data is administrative records. The limitations in this case have been set out by Montaigne and Di Meglio: "administrative data refers to data that are primarily collected for the administration of a particular function, in our case usually tax and social security authorities. Their business process is therefore built around the primary function these data serve … Statistics production is an ancillary function of these registers" (2012, pages 5-6). The delivery of statistical data depends on the operational timetable. They show that the delivery date for incomes in year n-1 range from September in year n (Austria) to August in year n+1 (Netherlands). For Denmark, France, Italy and Sweden, the delivery dates are all in year n+1. These delays typically relate to the specific administrative and legal system, but Montaigne and Di Meglio suggest ways in which the timeliness could be improved. These include the use of provisional data and mixed-mode

approaches where, in cases where it was known at the time of interviewing that the register data were likely to be missing or delayed, interview data were used in place of the register.

A further set of measures involves use of a different income concept. In particular, the Eurostat Task Force is considering (Mercy, 2012, page 8) the use of questions in the interview in year n that relate to income in that year. The questions could be about income in the most recent month or about the change in income compared with twelve months previously.

"Now-casting"

The second possible approach to the issue of timeliness is to use the available past distributional data to forecast the current situation. Such a "nowcasting" exercise is being developed by Holly Sutherland and colleagues as part of the EUROMOD project funded by the Commission (Navicke, Rastrigina and Sutherland, 2012). Now-casting is increasingly being used with regard to macro-economic variables.[7]

EUROMOD is a tax-benefit microsimulation model constructed with the purpose of analysing the impact of changes in tax-benefit policies on income poverty, the income distribution, work incentives and the public budget. EUROMOD is a static model, so capturing the effects of changes means that dynamic elements must be introduced. Starting from the EU-SILC distributional data, the exercise involves (i) adjusting for changes in the labour market using information from the Labour Force Survey, (ii) updating market incomes using aggregate data from macro-economic statistics or forecasts, (iii) updating demographic and compositional data, and (iv) feeding these into an updated version of the tax-benefit simulation model incorporating known changes in policy parameters such as tax rates and benefit levels, and other specific policy changes (such as increases in the pensions age).

Some flavour of the EUROMOD-based results may be obtained from the work of Navicke, Rastrigina and Sutherland (2012), who describe the nowcast for 8 countries: Estonia, Greece, Spain, Italy Lithuania, Latvia, Portugal and Romania. Their estimates for Greece suggest that since 2010 median household disposable income has fallen by 18 per cent (in nominal terms) and that inequality, as measured by the Gini coefficient, has risen by 1.6 percentage points. The fall in the median means that the poverty line (set at 60 per cent of the median) has fallen and, judged by this lower standard, the headline risk of poverty rate has changed little. Navicke, Rastrigina and Sutherland go on to point out, however, that "the nowcasts for population subgroups reveal that poverty risk is set to rise for children and prime age adults (by more than 2 percentage points) and to fall

[7] According to Wikipedia, "nowcasting has recently become popular in economics. Standard measures used to assess the state of an economy, e.g., gross domestic product (GDP), are only determined after a long delay, and are even then subject to subsequent revisions. While weather forecasters know weather conditions today and only have to predict the weather tomorrow, economists have to forecast the present and even the recent past."

dramatically for elderly people (by nearly 9 percentage points). This is because pensions have been frozen while other incomes have been falling in nominal terms" (2012, page 20). In the Baltic states, the poverty rate is estimated to be higher in 2012 by more than 1 percentage point than in 2010 in Latvia and Lithuania, and by 0.6 percentage point in Estonia. In the other countries, the changes are small, except in the case of Portugal, where the poverty rate is shown to have fallen by 0.5 percentage point and the Gini coefficient to have increased by 1.4 percentage points.

The possibility of applying the nowcasting approach represents a return to the far-sighted investment made by the Commission in the construction of EUROMOD; at the same time, the approach needs to be further developed. As has been discussed by Navicke, Rastrigina and Sutherland (2012), there are different approaches to updating: for instance, explicit modelling of transitions between states as opposed to re-weighting observations.

4. Conclusions

Recommendation 2 of the Stiglitz Commission on the measurement of economic performance and social progress stated that "while it is informative to track the performance of economies as a whole, trends in citizens' material living standards are better followed through measures of household income and consumption" (2009, paragraph 23). In this paper I have argued that we urgently need to make a reality of this recommendation, accelerating the steps already being taken, and to make it the starting point for macro-economic analysis. For individuals, it is household living standards that are the most salient indicator. If we wish to avoid a total "disconnect" between the discourse on economic policy and the experience of citizens, then the headline indicator should be a measure of household living standards taking account of distributional concerns. Such a re-positioning is, in my judgment, essential if the EU and Member State governments are to secure the support of their voters.

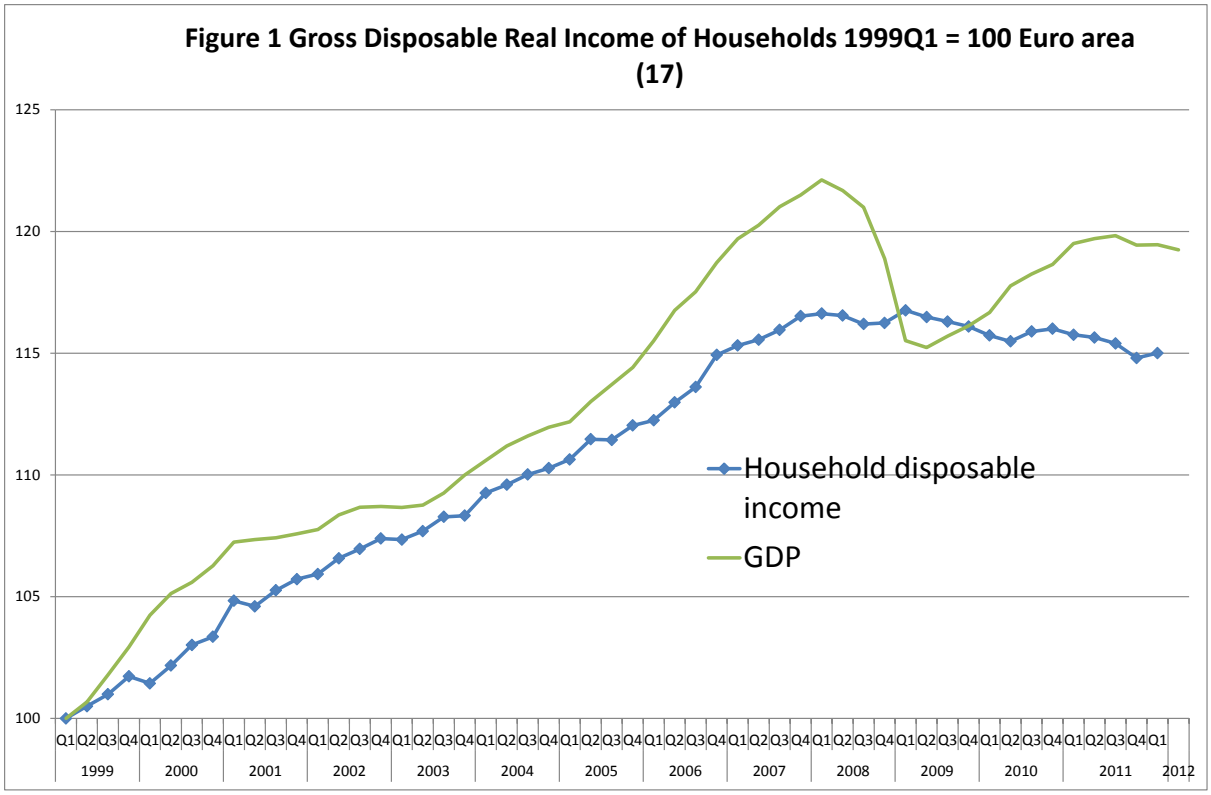
The shift in perspective proposed here means that our assessment of economic performance may differ from that indicated by GDP (or Gross Domestic Income) per capita for five reasons:

- Changes in the share of households in total income (Adjustment 1);
- Spendable income may have moved differently from total household income, notably on account of the imputations made in arriving at the latter total (Adjustment 2);
- Changes in national accounts procedures that have no counterpart in household surveys (Adjustment 3);
- Changes in household composition affecting the equivalised income of households (Adjustment 4);
- Increased or decreased inequality of income (Adjustment 5).

Put in reverse, if the headline indicator becomes distributionally adjusted equivalised household disposable spendable income, then we can work back to see how the different elements have contributed to an improvement or a worsening of performance.

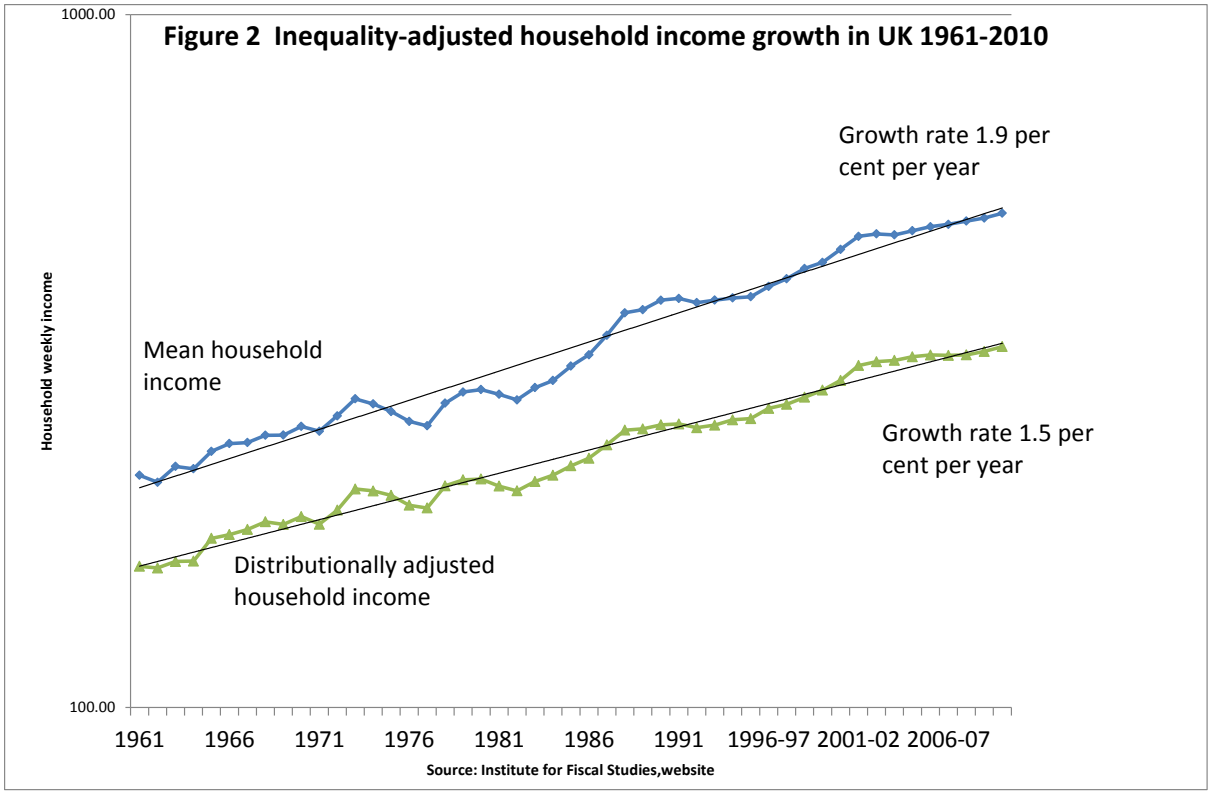
In response to the objections that may be raised, I have argued that the adoption of distributionally adjusted equivalised household disposable spendable income as the headline indicator can make a significant difference to the way in which we view economic performance. Household incomes moved in a different way from GDP both before and during the economic crisis. It is quite possible that in the future household spendable income will have to grow more slowly than GDP. Changes in the distribution of income can change significantly the measured rate of growth.

It is true that the definition of the proposed household income indicator involves judgments of value. But such judgments are implicit in the current approach, and in my view making the judgments explicit renders it more probable that they will be understood and accepted by the citizens of Europe. Finally, it should be possible to produce the indicator with a reasonable degree of currency through steps to speed up the availability of distributional data and the use of nowcasting techniques.



Reading note: The graph shows the change in GDP and in household disposable income in terms of index numbers, so that each series starts at 100 in the first quarter of 1999. At its peak in the first quarter of 2008, GDP has a value of 122.1, so that it was 22.1 per cent higher than in the first quarter of 1999.

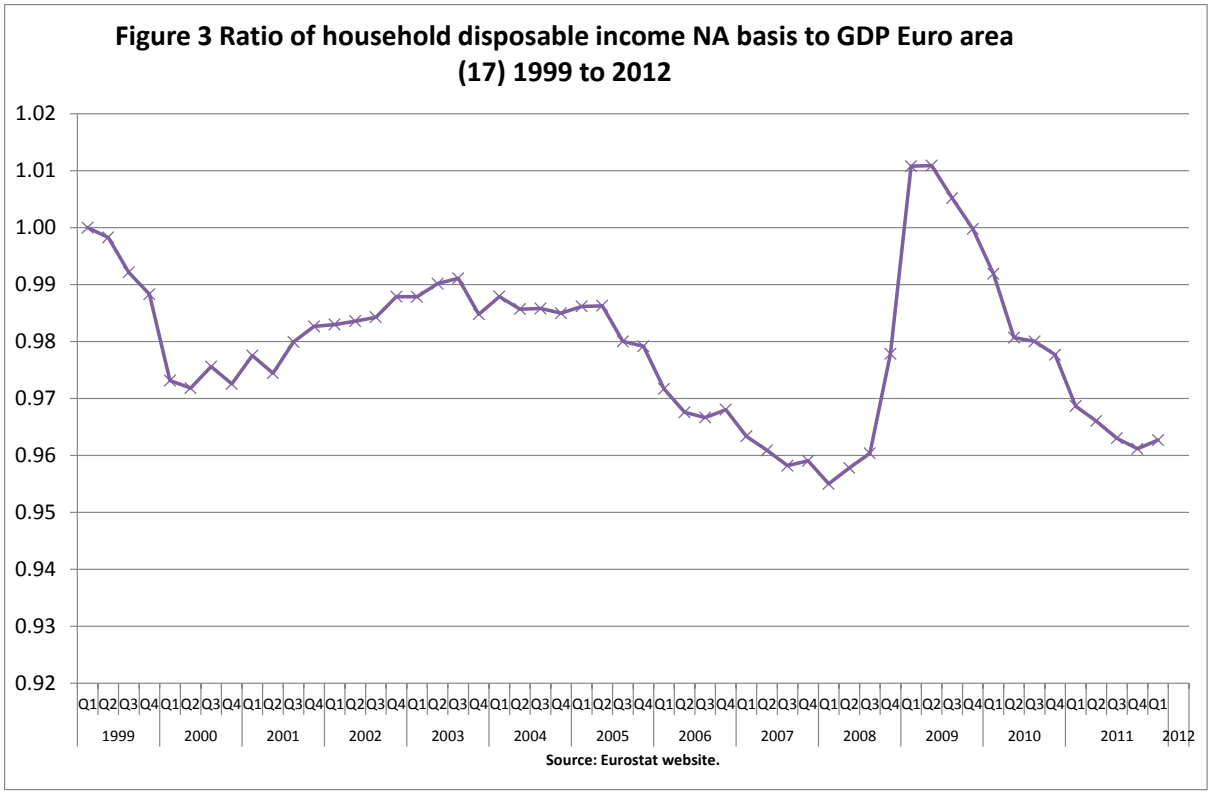
Note: The growth of household disposable income is expressed in real terms using the deflator for the seasonally adjusted final consumption expenditure of households (including non-profit institutions serving households). Part of the difference between the two series may therefore be accounted for by prices for final consumers rising at a different rate from the prices of domestically produced goods and services measured by the GDP deflator. The terms of trade are the major factor that accounts for different movements of the GDP deflator and final consumer prices.



Reading note: The upper series shows the mean household income (defined below) in real terms, expressed in 2009/10 prices, measured on a logarithmic scale, so that constant proportionate growth takes the form of a straight line. The fitted line shows that the average annual growth rate over the period 1961 to 2009/10 was 1.9 per cent. The second series shows the mean income multiplied by a distributional adjustment equal to 1 minus the Gini coefficient. The Gini coefficient is equal to half the mean difference divided by the mean. So a value of 0.26, as at the beginning of the series, implies that, if we choose two households at random, the expected difference in their incomes is 52 per cent of the mean. Where negative incomes are set to zero, the Gini coefficient takes a value between 0 (completely equal incomes) and 1 (where one person has all the income). This means that the second series lies everywhere below the mean income. The fact that the Gini coefficient was 0.36 in 2009/10 means that the increase in distributionally adjusted household income was less than the increase in mean income by a factor of 64/74.

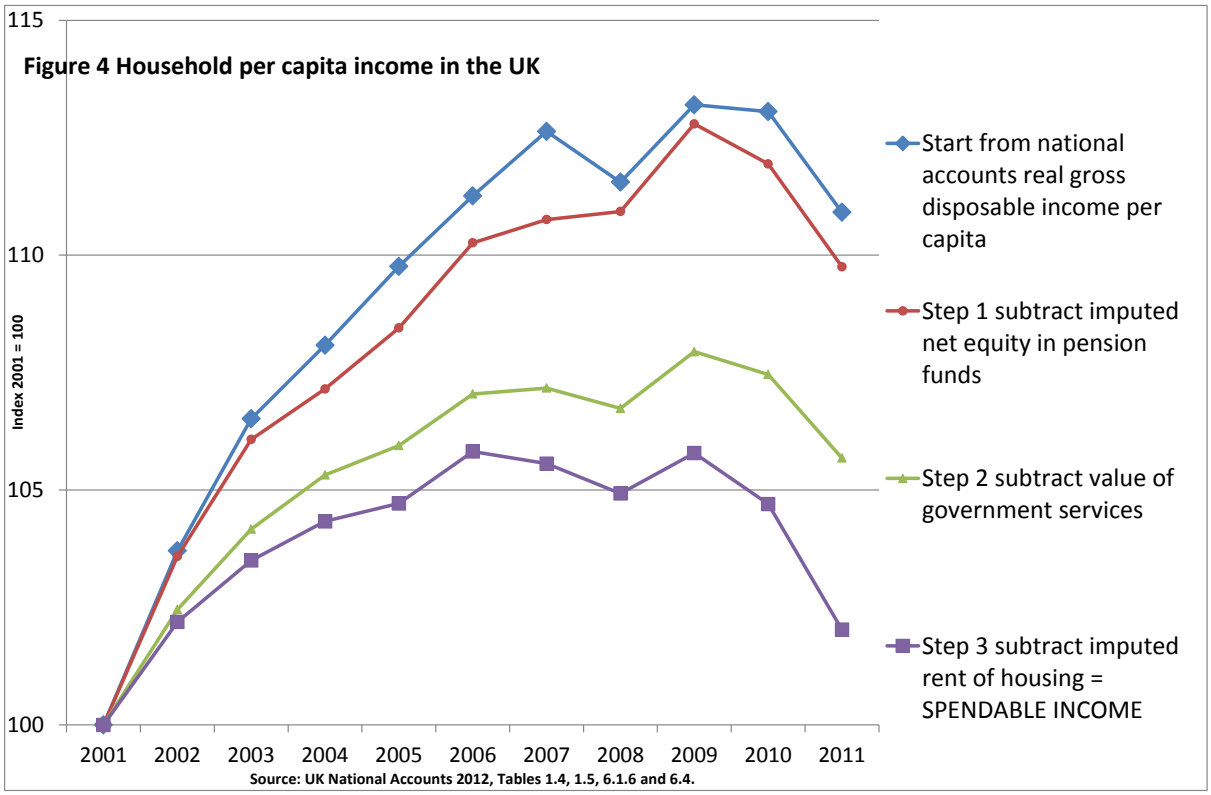
Note: Incomes are household weekly incomes net of direct taxes. They are expressed as the equivalent for a childless couple using the Modified OECD equivalence scale. The series are presented on a UK basis from 2002/03 onwards; earlier years relate to Great Britain. All prices are expressed in average 2009/10 prices using an index constructed by the Institute for Fiscal Studies.

Source: The data are from the spreadsheet accompanying IFS Commentary No. 118, "Poverty and Inequality in the UK: 2011".

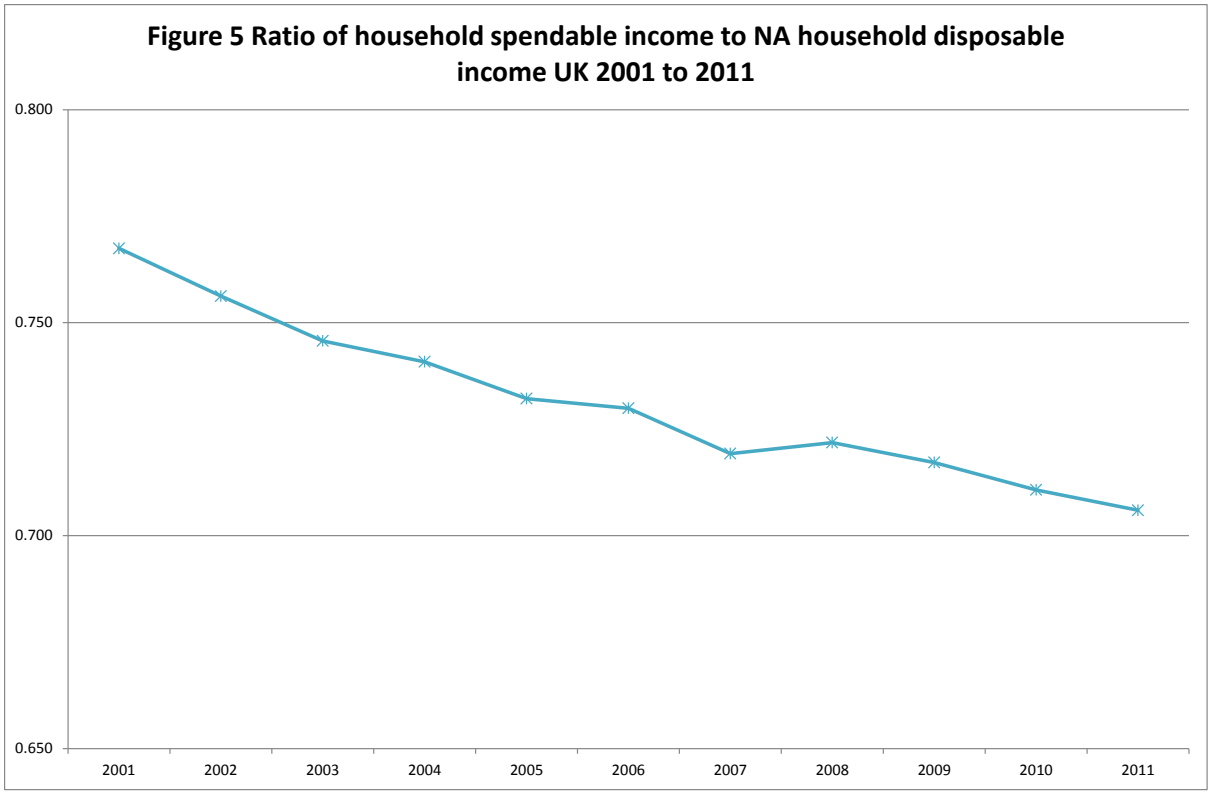


Reading note: The graph shows the ratio of two series, each expressed as an index number set at 100 in the first quarter of 1999. The ratio therefore starts at 1. The final value is 0.963, which means that household disposable income has fallen by 3.7 per cent relative to GDP.

Note: see note to Figure 1.

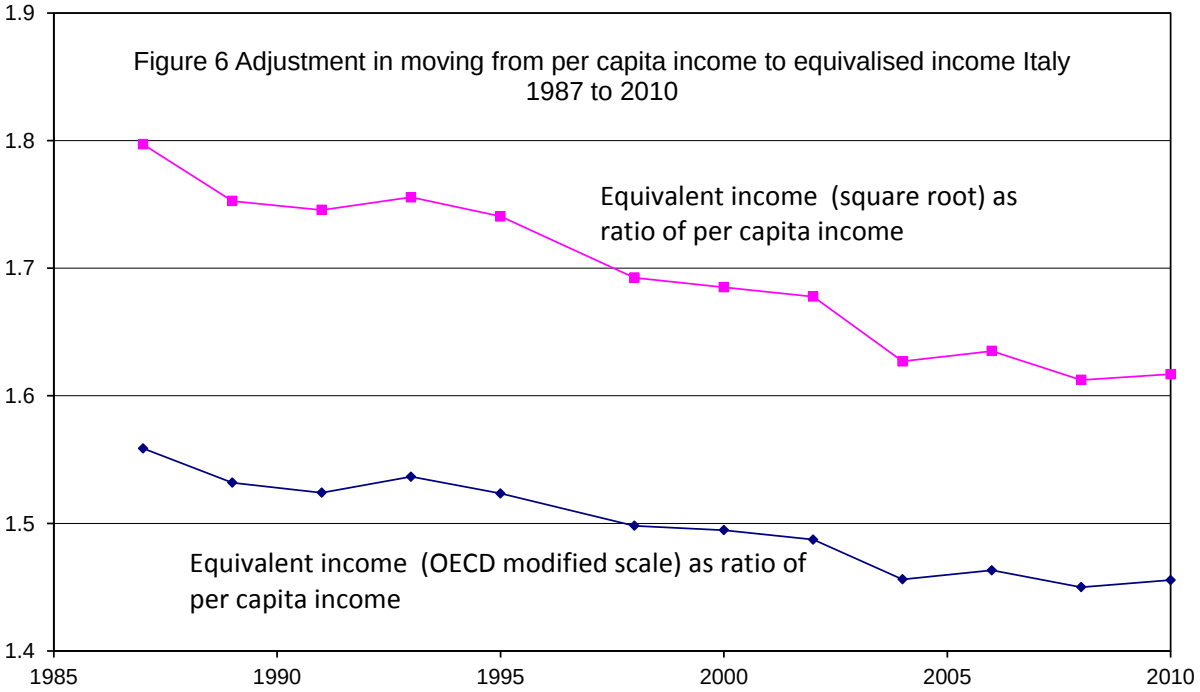


Reading note: The graph shows the different steps involved in moving from household disposable income to household spendable income in the UK national accounts as an illustration of Adjustment 2. The data are annual. In each case the series is expressed as index number with the 2001 value as 100. Each step involves subtracting an item that is not included in spendable income as defined here. There is no reason why the curve should be lowered by such a subtraction, since the base year value is also affected. The fact that the curves lie below means that the subtractions have become larger over time. The final step shows that, for instance, spendable income in the UK in 2008 was 5 per cent higher than in 2001.



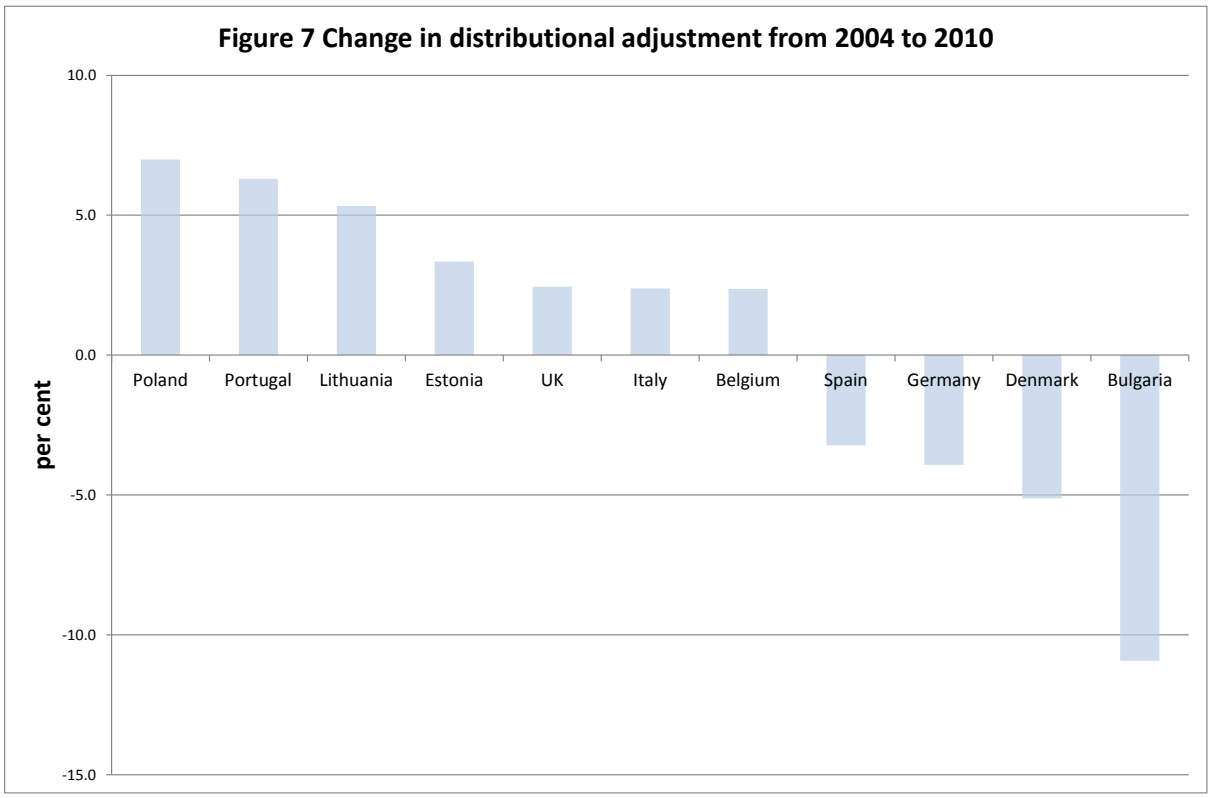
Reading note: This graph shows the ratio of spendable income to disposable income in the UK. The first figure shows that in 2001 spendable income was 76.7 per cent of disposable income.

Source: see Figure 4.



Reading note: The graph shows the *ratio* of average equivalised disposable income (person weights) to per capita income for two different equivalence scales (see text). For example, using the OECD modified scale gives an average equivalised income which in 2010 is 1.46 times per capita income.

Source: data supplied by Andrea Brandolini, based on the Bank of Italy Survey of Household Income and Wealth.



Reading note: The graph shows the change in the distributional adjustment (based on the Gini coefficient) between 2004 and 2010. A positive change means that income inequality has fallen, so that distributionally adjusted income has risen. For example, the Gini coefficient in Poland was 0.356 in 2004 and 0.311 in 2010, giving distributional adjustment factors of 0.644 and 0.689, respectively. 0.689/0.644 = 1.07, giving the 7 per cent improvement shown in the first bar.

Note: France and Romania are omitted on grounds of breaks in the data series. Other countries are omitted if the change between 2004 and 2010 is less than 2 per cent.

Source: Eurostat website (ilc_di12). Distribution of equivalised disposable household income by individuals. Equivalisation is based on the so-called modified OECD scale: 1 for first household member, 0.3 for household members aged under 14, and 0.5 for remaining household members. The data relate to income years, which – apart from the UK – correspond to the following survey year, so that income data for 2010 are obtained in the 2011 EU-SILC. The data for Bulgaria and Italy relate to 2009 (not 2010).

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