Social Inclusion and Income Distribution in the European Union

Executive Summary of the Monitoring Report prepared by the European Observatory on the Social Situation - Social Inclusion and Income Distribution Network
EXECUTIVE SUMMARY

The second annual report of the network on income distribution and social inclusion of the European Observatory on the Social Situation reviews developments in income inequality and the risk of poverty across the EU on the basis of the data available at the time the analysis was carried out in mid-2006. In addition, it examines in detail a number of aspects of income inequalities and the factors underlying these, which is not only of interest in itself but is important for the formulation of effective policies. These aspects include:

- the effect of economic growth, employment levels and the scale of social expenditure on the extent of income inequalities and the proportion of people with income below the poverty line;
- the effect of age, education and employment status on the distribution of income and the likelihood of someone having income below the poverty line;
- the effect of taxes and benefits across the EU on the distribution of income and the relative numbers at risk of poverty;
- the movement into and out of poverty and the factors influencing the length of time people are likely to spend with income below the poverty line;
- the effect of ill-health on the risk of poverty and the vulnerability of people from countries outside the EU to having income below the poverty line;

This analysis is supplemented by case studies of developments in four EU Member States over recent years – Ireland, Spain, Hungary and Sweden – to explore further the effect of economic growth, employment, education levels and social policy on income distribution.

The analysis is also extended to examine other indicators of deprivation and social exclusion as well as income, in order in particular to take account of the substantial differences in purchasing power which exist between countries in the EU but which do not necessarily show up in relative measures of poverty.

In addition, the position of ethnic minorities in the EU is considered in more detail, examining, first, the situation of the Roma community in the new Member States and other parts of Central and Easter Europe and, secondly, the evidence on the access of ethnic minorities in general to education, employment and decent housing in different parts of the EU.

Finally, there is a review of recent policy developments affecting the distribution of income and the relative number of people with income below the poverty line in each of the EU Member States together with those in Croatia and Turkey.

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1 The views expressed in this document are those of the authors and do not necessarily represent those of the European Commission.
1. Income inequality and poverty in the EU: recent developments and trends

The data available on the extent of income inequality in the EU Member States and candidate countries is not entirely satisfactory. While the new Survey on Income and Living Conditions (EU-SILC) provides data for 13 countries for 2004 (the EU15 Member States excluding Germany, the Netherlands and the UK plus Estonia) – which, in practice, relate to the position in 2003 – the data for the other countries come from a variety of non-harmonised national sources. This both, limits the analysis which is possible, especially for the new Member States and candidate countries, and adds a significant element of uncertainty over the results, particularly as regards changes over time. The conclusions reached, therefore, have in many cases to remain tentative until more comparable and timely data become available.

The average quintile ratio for EU25 countries is just below 5, indicating that the top fifth of the income distribution has about 5 times higher incomes than the bottom fifth. The difference between countries with the lowest and highest levels of income inequality, as measured by this ratio is around two to one within the current EU – ie countries with the most unequal distribution of income have a ratio which is twice as high as those with the least unequal distribution. In general, Mediterranean countries together with the UK and Ireland tend to have higher than average inequality, while Nordic countries tend to have relatively low levels. Moreover, there are differences even between countries that are geographically close to each other and share common historical development paths. In particular, whereas the Czech Republic has one of the most equal distributions of income in the EU, Slovakia has one of the most unequal.

In terms of the relative measure of poverty as conventionally defined – having income below 60% of the national median - around 16% of the population or some 75 million people are at risk in the EU. This proportion, however, varies widely in line with the extent of dispersion in the distribution of income, from around 20% or just above in Slovakia, Portugal, Ireland, Spain and Greece to under 11% in the Czech Republic, Slovenia, Denmark, Finland, Sweden and Luxembourg. In general, the proportion in the new Member States is similar to that in the EU15 and their entry had only a small effect on the average poverty rate as so defined in the EU (in fact, it reduced it marginally).

The depth of poverty, as measured by the extent to which the income of those below the poverty line falls below this, is greatest in Slovakia and smallest in the Czech Republic, Luxembourg, and Finland. Indeed, there is some correlation between the proportion of people with income below the poverty line and the depth of poverty gap, which suggests that those with low incomes are better off in countries where this proportion is low than where it is high. Accordingly, the distribution of income seems, therefore, to be as unequal below the poverty line as above it in the latter countries.

The evidence suggests that the changes which have occurred in the distribution of income also vary markedly between countries. Finland, Sweden and the UK are the only countries where the distribution of income seems to have widened significantly between the mid-1990s and 2001. In 6 of the EU15 countries the relative income of the most prosperous 20% increased, more notably in Finland and Sweden. In most countries, the shares of income of the bottom, middle and top quintiles remained broadly unchanged over this period.

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2 The publication of the EU-SILC for all Member States except Bulgaria and Romania in the first part of 2007 should greatly improve the situation, though it will remain difficult to examine changes over time because the data is unlikely to be precisely comparable with those from earlier surveys.

3 Or more precisely, the income received by someone 20% from the top of the income scale is around 5 times more than that received by someone 20% from the bottom.
Trends in child poverty over this latter part of the 1990s, in particular, vary considerably between countries. Whereas in Germany, Belgium and Austria, the proportion of children with income below the poverty line declined, in the Netherlands, Luxembourg, France and Spain, it increased. Countries with the highest risk of poverty among children in the mid-1990s – the UK, Ireland, Portugal, Italy and Spain – remained so.

Finland, Austria, Ireland and Spain – in the last two of which, the risk is well above average – are the only countries where the risk of poverty among the elderly increased over the period 1995-2001, while Portugal, the UK, France and Luxembourg are the only countries where it fell.

The unemployed are at particular risk of poverty in most EU countries – over twice as likely to have income below the poverty line as the population as a whole and in the UK, Italy, Germany, Netherlands, Luxembourg, Slovenia, Hungary, the Czech Republic and Malta, at least three times as likely. The unemployment benefit system in the latter countries, in particular, therefore, is not effective in preventing the income of those out of work from falling below 60% of the national median.

2. **ECONOMIC GROWTH AND INCOME INEQUALITIES IN EUROPEAN COUNTRIES 2000-2004**

Over the period 1999 to 2004, slightly more countries seem to have experienced a widening in the extent of income inequality as experienced a decline. There is, however, little evidence of any convergence in inequality across the EU27 Member States and the two candidate countries. Nor were there large differences between the EU15 countries and the new Member States.

The evidence suggests that an increase in the rate of GDP growth can be associated with inequalities and relative poverty rates either increasing or diminishing depending, it would seem on the social policies followed. There is no example, however, of a reduction in GDP growth being accompanied by a reduction in poverty or inequality.

Similarly, an increase in employment rates can result in the proportion with income below the poverty line rising or declining, again perhaps according to the policies followed though also depending, on the functioning of the labour market, but there is no example of a fall in employment resulting in a fall in poverty. A rise in employment, therefore, appears to be a necessary condition for poverty being reduced but not a sufficient one.

Equally, short-term increases in social expenditure relative to GDP can be associated with a rise, no change or a decline in poverty and inequality, but no country in which social expenditure declined experienced a reduction in the relative number with poverty-levels of income.

The analysis, therefore, suggests that the distributional effects of economic growth vary, depending on the nature of growth itself (in which sectors it is concentrated, how it affects employment, and so on) and the nature of social welfare system (the scale and pattern of expenditure as well as perhaps the social and labour market legislation in place). This accords with the results of recent studies suggesting that the performance of various European social models differ in terms of efficiency and equity.

3. **DECOMPOSITION OF INEQUALITIES IN HOUSEHOLD INCOME IN THE EU**

Analysis of the relationship between the characteristics of the head of households and relative income levels reveals that in the Nordic countries where the degree of income inequality is relatively low, the age of the household head is more important in explaining relative household
income than in other countries. This reflects the substantial difference in average income between those aged 50-64 and approaching retirement and younger people aged 18-34 just beginning their working careers. On the other hand, education appears to be less important in this respect than elsewhere, reflecting the generally high levels of education of the population and the relatively small differences in income between those with different education levels.

The southern European countries, in which the degree of inequality is relatively high, display, in the main, opposite characteristics to the Nordic Member States. The age of the household head is relatively unimportant in explaining inequality, while education level is of major significance, especially in Greece and Portugal. In both countries, especially the latter, where a relatively large proportion of the workforce has only basic schooling, this may reflect an inadequate supply of highly educated workers and accordingly the high wages they are able to command. On the other hand, the employment status of the head of household does not seem to be a major determinant of low income levels in these countries, which reflects perhaps not so much the effect of the unemployment benefit system in these countries but the tendency for relatively few of the unemployed to live on their own.

In Ireland, where income inequality is also relatively high, education and employment are important in explaining low levels of household income, as is the age of the household head, reflecting the relatively low level of retirement pensions, which have not kept pace with the rising income of the rest of the population.

In the case of Austria, on the other hand, none of the explanatory factors seems important in explaining income dispersion, whereas in Belgium, where the degree of income inequality is similar, both the education level of the household head and, more especially, their employment status, seem to be important. In the other continental countries, education seems to be the most explanatory factor.

4. SELECTED CASE STUDIES OF CHANGES IN INCOME DISTRIBUTION

Examination of developments over recent years in four Member States – Ireland, Spain, Sweden and Hungary – which have experienced very different economic and social developments over recent years, throws additional light on the effect of economic growth and differing rates of net job creation on the distribution of income.

In Ireland, where the distribution of income is among the most unequal in the EU, the high rate of economic growth since the mid-1990s has been accompanied by little change in this regard and apparently little pressure to reduce inequalities, reflecting perhaps the increase in real income experienced by even those with low income levels even though their relative position has not improved. This raises the question as to whether greater attention in the formulation of policy will be paid to social issues and to reducing inequality in the future and, if so, whether this will adversely affect economic performance.

In Spain, the considerable increase in employment over the past decade or so has been accompanied by some narrowing of inequalities of household income, reflecting not only the fall in unemployment but also an apparent reduction in the returns to education as the number of people with university degrees has expanded significantly and accordingly a narrowing of differentials in earnings. At the same time, reform of the social security system has led to more of the unemployed receiving benefits.

In Sweden, the severe recession of the early 1990s caused some widening of income inequalities as unemployment increased especially among young people who were unable to find jobs.
Disparities, however, remained relatively narrow as compared with other countries. Since then, disparities seem to have widened further, partly reflecting the widening of dispersion of wages as the premium attached to university education has increased.

In Hungary, where there has been a rapid transition from a centrally planned to a market economy, the degree of income inequality seems, initially at least, to have increased significantly. In the immediate aftermath of the demise of the former regime, there was a substantial reduction in employment rates and increase in unemployment with a marked polarisation of job possibilities. This has been followed by a second period, when there has been a fundamental revision in the returns to higher education and an expansion of the tertiary education system. The increase in employment, however, moderated the widening of inequalities over this period.

5. THE EFFECT OF TAXES AND BENEFITS ON INCOME DISTRIBUTION IN THE EU

The major way in which governments can influence income distribution is through the system of cash benefits and taxes. Taxes tend to be progressive in the sense that the effective rate tends to increase as income rises, while benefits tend to be targeted specifically on those with low incomes or in particular circumstances, such as being unemployed or in ill-health, which affect their earnings capacity. The extent of redistribution which systems give rise to varies significantly across countries, depending on how benefits are targeted and the progressively of income tax and social contribution schedules, as well as on the overall scale of transfers and rates of taxes.

The distribution of income before taxes and benefits, however, also varies markedly across countries, with Portugal, Ireland and the UK of the countries analysed (the EU15 Member States plus Hungary and Poland) tending to have the widest dispersion of ‘original’ income and the Netherlands, Sweden and Austria, the narrowest. The estimated effect of the tax-benefit system in reducing the extent of dispersion depends on both the measure of inequality used and the procedure applied to estimating the effects in question, which means that there is no simple answer to either the scale of redistribution in different countries or the relative contribution to this of taxes, on the one hand, and benefits, on the other.

The contribution of social benefits to the income of the bottom 20% of income recipients varies from 44% in Greece and 45-60% in most other EU15 countries to 60-70% in the three Nordic Member States plus Belgium, over 70% in the UK and around 85% in Ireland. Although the taxes paid by this group are very small in most countries, they are significant in Denmark and Sweden as well as Poland. The taxes paid by the most prosperous 20% range from 40-45% in Denmark and Sweden to around 25% in Ireland and Portugal, with the size of the deduction in Hungary and Poland tending to be relatively low (around 27%) and similar to that in Italy and the UK. Benefits, however, also account for a significant share of income of this group in Austria (just over 20%), France and Poland (just under 20% in each) as against only 2-3% in Ireland and the UK.

The overall extent of redistribution is relatively small in Greece, Italy and Portugal and relatively large in Denmark, Luxembourg and the UK. In a number of countries, the effect of redistribution is smaller for the bottom 10% of income recipients than the 10% with slightly higher income levels (ie the next decile up), reflecting the fact perhaps that households with the lowest levels of disposable income

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4. The estimates of the effect of the tax-benefit system on income distribution are derived from the EUROMOD micro-simulation model of household income.
incomes may not qualify for benefits (or pensions), especially where these depend on the social contributions.

The countries with the highest levels of expenditure on benefits tend to have large public pension systems as well as large transfers of non-means tested benefits. This is the case in Denmark, Sweden, Finland and Austria. In Ireland and the UK, by contrast, means-tested benefits account for almost 60% of total transfers and almost 40%, respectively. These make up a large proportion of transfers to the bottom 20% of income recipients, in particular, as would be expected since they are targeted specifically on these, whereas non-means tested benefits account for a similar proportion of income for households in this group as for households generally in Belgium, Germany, Spain, Italy and Austria and a smaller proportion in other countries. Such benefits, therefore, play only a limited role in redistributing income.

As well as affected vertical equity, taxes and benefits also affect horizontal equity – the treatment of people with the same income level but with different circumstances. Taking one important case, the treatment of children and parents by the tax-benefit system, the analysis shows, first, that in nearly all countries, the net amount cash support received is higher for children aged 0-5 than for older children. In a number of countries – Ireland, the UK and Germany, especially – support for children is targeted in particular on children in low income households. By contrast in Spain and, to a lesser extent in Luxembourg, because of the relative importance of tax concessions, support for children increases as income rises.

In terms of horizontal equity, assuming the (OECD-modified) equivalence scale broadly reflects the cost to households of having children (i.e. where a child is assigned a weight of 0.3), then the proportion of the cost of a child under 6 met by the tax benefit system is more than six times larger in Luxembourg than in Spain, while for children aged 6-17, the support provided in Austria is around 5 times larger than in Spain.


The dynamic of poverty - how long those with income below the poverty line spend in this state - are arguably as important as the relative number concerned in any one year. For the EU15 Member States, the European Community Household Panel (ECHP) provides a means of investigating this aspect for the years 1994 to 2001 and how it varies across countries.

The analysis indicates that the mean duration of poverty, in the sense of having income below 60% of the median, varies between countries as well as between age groups, types of household and the characteristics of household members, including their employment status and education level, as well as the number of children they have.

The results suggest that countries with the highest poverty rates are also those with the highest incidence of persistent poverty. In southern European countries, and most especially in Greece, Spain, Portugal, nearly half the population experienced poverty at least once over the 8-year period examined and around 15% for at least five out of the 8 years. By contrast, in Denmark, Finland, the Netherlands and Luxembourg, only around a third of people ever experienced a poverty-level of income and the rate of persistent poverty was only around 35% of that in the southern Member States.

The three Nordic Member States are the only ones in which the proportion of children never experiencing poverty-levels of income is greater than for the population as a whole, while the UK and Portugal stand out as the countries with the highest levels of persistent poverty among children.
In terms of the duration of poverty (again in a relative sense), couple households where at least one member is aged 65 or over tended to experience longer spells with income below 60% of the median (between two and three times longer) than younger couples in all the countries covered, most especially in Ireland, the UK and Portugal. In addition, single women in Ireland stand out as being likely to spend a particularly long time with income below the critical level (over 3 years) once their income falls below this, while the unemployed with low education levels have an especially long average duration (over two years) in Belgium, France and Finland.

7. WHY ARE THE POOR POOR? THE ROLE OF LABOUR MARKET AND DEMOGRAPHIC FACTORS, INCLUDING HEALTH AND IMMIGRATION

Analysis of the data from the first survey conducted by the EU-SILC (Statistics on Income and Living Conditions) for the 13 EU Member States covered plus Norway indicates how the probability of being poor is affected by personal and labour market characteristics.

The results show that joblessness seems to be the main cause of income falling below the poverty line across the EU, unemployment increasing the probability of having income this low by some 26%, on average, after allowing for personal characteristics, household structure and the country of residence. The impact of unemployment, as might be expected, is greater when other household members are also out of work (the poverty risk being increased by 36-38%), which suggests that social benefits in these circumstances are not sufficient to prevent household income falling below this level.

Leaving unemployment aside, single parents face a much higher risk of poverty (8-12% higher) than two-parent-household, even after taking account of differences in employment, status, education level, age, health and country of residence. Having children, however, increases the risk of poverty for couples as well as single people, suggesting that social benefit systems do not cover the additional costs involved, to the extent that this is reflected in the (OECD-modified) equivalence scale.

Ill health, on the other hand, has a relatively small direct effect on the poverty risk, other things being equal, increasing this by 2-5% among people of working age, depending on the measure of health used. This applies equally to long-standing illness or disability, which even if it strongly limits a person's usual activities raises the risk of poverty by only 3%. On the other hand, people who assess their health as being very bad have a 5% higher risk, which suggests that self-assessment of health is a relevant indicator to take into account when considering the probability of someone having income below the poverty line.

Ill-health seems to have more affect on the risk of poverty via other factors, in particular, through lower labour market participation. Unemployment, therefore, seem to be around twice as high among those who report very bad health than among those with good health and inactivity (other than for retirement or education reasons) nearly three times as high.

The results indicate, in addition, that migrants from outside the EU tend to have nearly twice the risk of poverty as those from another EU country and that non-nationals (ie those who do not have citizenship of the country in which they live have a higher risk on average than those born outside the country, even after allowing for employment status, educational attainment levels and household composition. This suggests that some strengthening of integration and related policies is called for to reduce the extent of disadvantage suffered by the people concerned.
8. NON-INCOME MEASURES OF DEPRIVATION

As is well documented, monetary income, however defined, is liable to be an incomplete and, therefore, not fully satisfactory measure of living standards and, accordingly, of the risk of social exclusion. This is recognised by the compilation of a range of indicators in addition to income, launched by the Laeken Council at the end of 2001, monitor social inclusion across EU Member States. These indicators, however, are still very much focused on disposable income defined relative to other incomes in individual EU Member States. The adequacy of relative income levels as an indicator of deprivation and social exclusion has been called into question in particular by the entry into the EU of Central and Eastern European countries with much lower levels of income per head but with slightly more equal distributions of income than EU15 countries and, accordingly, lower relative poverty rates.

This has prompted growing interest in the development of other indicators which throw light on living standards and the risk of absolute poverty across the EU, which have clear implications for policy at EU as well as national-level.

Analysis of the EU-SILC for 2004 demonstrates that data collected on the financial strain experienced by households across the EU and on their ability to afford particular items can usefully serve as indicators of material deprivation to supplement the use of relative household income to indicate the risk of poverty. This is particularly the case if the concern is with absolute problems rather than relative ones. From examination of potential indicators, some appear more promising than others in the sense of being correlated with household income measured in purchasing power parity terms, most notably, the ability to afford an annual holiday and r being in arrears in paying rent, mortgage or utility bills.

On the other hand, the use of indicators of housing conditions seems to give little insight into deprivation in most of the EU15 countries but appears to be more relevant in identifying problems in the new Member States, where a significant number of households still lack basic amenities and where surveys suggest that the housing stock is badly in need of repair and renovation.

Similarly, indicators of environmental problems based on individual perceptions seem to be of questionable use for assessing the real extent of these and their effect on standards of living.

A full assessment of the usefulness of various possible indicators of material deprivation in this context, however, has to await until a complete set of data from the EU-SILC become available for all Member States.

9. THE SITUATION OF ROMA IN CENTRAL AND EASTERN EUROPE

Roma are present in nearly all European countries, numbering an estimated 7-8 million in total. Most of them live in Central and Eastern Europe, some 1.2–1.4 million in the new Member States which entered the EU in 2004 and, further 2.0–2.8 million in Romania and Bulgaria, which became EU members at the beginning of 2007.

In all Central and Eastern European countries, surveys conducted and data compiled demonstrate that the position of Roma is considerably inferior to the majority of the population in terms of living conditions, housing, income, employment status, education and access to services. In terms of education, in particular, many Roma children in a number of the countries are put into special schools for those with learning difficulties and, accordingly, have only limited chances of acquiring a reasonable level of education let alone a good one.
The problems suffered by Roma communities tend to be cumulative in the sense that restricted access to education leads to limited employment opportunities which then affects their pay and income levels, driving many of them to work in the black economy, which reinforces the discrimination and disadvantage they experience. It is equally the case, however, that the economic difficulties of the countries in which they are concentrated and their demographic characteristics - high fertility rates and large families, in particular, add to the problems they face and increase the difficulty of tackling them.

Nevertheless, a full analysis of their relative position and of the problems they face has to await the availability of more complete and reliable data which are comparable across countries. Such data, however, are difficult to obtain, not only because of the reluctance of many Member States to countenance surveys containing questions on ethnic origin but also because of the reluctance of many Roma to admit to the fact for fear of discrimination. Without these data and the research into key economic, social and political issues which they would make possible, it is difficult to formulate effective policies for integrating Roma effectively into EU societies.

10. THE POSITION OF ETHNIC MINORITIES ACROSS THE EU

Assessing the relative position of those belonging to ethnic minorities in different parts of the EU in terms of their access to education, employment, decent housing and a similar standard of living as the population at large is problematic. Although there is piecemeal evidence that many of the people concerned suffer significant disadvantage in all these areas, data are lacking to formulate anything close to a complete and reliable picture of the actual situation. Nor for the reasons already noted is it easy to rectify this lack of data. Accordingly, any assessment of their position has to rely either on indirect means of compiling relevant information or on special surveys and case studies targeted specifically on this particular issue.

Although no comparable data exist as such across the EU on the access of ethnic minorities to employment or education, data from the Labour Force Survey which distinguish people by nationality might be broadly indicative of their relative position. These show that employment rates of people living in the EU who do not have EU nationality are significantly lower than for those who do, especially in the case for women. At the same time, unemployment in 2005 averaged 8% for those with EU nationality and 17% for those with non-EU nationality. The lower average level of educational attainment among non-EU nationals explains some of the difference in employment rates, but rates are lower for non-EU nationals at each broad level of education, even among those with university degrees or the equivalent.

Equally, considerably fewer non-EU nationals with this level of qualification tend to work in jobs which are in line with their qualifications (ie as managers or professionals) and significantly more work in elementary jobs. These indicative findings are confirmed by more direct evidence from Member States which do compile data by ethnicity, such as Denmark (where the rate of participation in the labour force of immigrants from countries outside the EU averaged only 53% in 2004 as opposed to over 78% for Danes) or the Netherlands (where the average unemployment rate of ethnic minorities was 16% in 2004 as against 6% for people of Dutch origin).

Evidence from studies carried out on the position of children from ethnic minority groups across the EU indicates that their educational attainment levels tend to be significantly lower and their drop-out rates higher than the majority population. It also indicates that segregation of such children in special schools, or, more generally, in schools in which there are relatively few children of the
majority population, is marked in many countries. It is, therefore, not just a feature of the treatment of Roma children, as indicated above.

Privatisation of public housing in many EU Member States in recent years and the reduction or removal of housing subsidies has reduced the public housing available for those with low income. This has hit migrant families in particular, not only directly but indirectly as a result of increased pressure at the lower end of the rental market. As a result, these families can end up paying more in rent than others and at the same time, a significantly proportion is likely live in sub-standard housing (as surveys have found in Germany, Austria, Spain and Belgium).

11. RECENT POLICY DEVELOPMENTS AFFECTING INCOME DISTRIBUTION

While fighting poverty and social exclusion is a widely shared goal across the EU, responsibility for doing so lies firmly with Member States. While the latter have pursued similar paths in many areas, the measures taken in respect of social benefits and taxation to achieve particular objectives and the priority attached to different policy goals vary significantly across countries. This variation reflects differences not only in the scale and nature of problems of poverty and social but also in underlying political and economic circumstances and the financial resources available as well as differences in the design of tax and benefit systems and in social values and attitudes towards redistribution.

It is difficult, therefore, to detect common trends in policy in this broad area across the EU and candidate countries.

The policy measures introduced mainly involve changes to income tax schedules, social contributions and social benefits, though they also include changes in minimum wages and social services. A widespread tendency has been to seek to increase incentives to work and to restrain public expenditure, in particular to ensure the viability of social insurance schemes, while at the same time trying to avoid reducing support for those on very low incomes by extending minimum income guarantees. This is especially the case as regards those in retirement. Income tax rates have been cut and/or allowances increased in many countries, along with attempts to simplify the tax system, and although those on low incomes have tended to benefit, those on high incomes have usually benefited more. Moreover, any beneficial effects at the bottom end of the scale have been tempered by the fact that many of the people concerned do not pay tax and therefore receive no gain (or as in Germany, where reduction in income tax were offset by rises in value-added tax, might even suffer a loss). The introduction of refundable tax credits in a number of countries has gone some way towards addressing this problem.